

***FINAL***

**Newark Bay Study Area**

**Phase III Sediment Investigation**

**Field Report**

**Glenn Springs Holdings, Inc.**

**East Brunswick, New Jersey**

June 2017

Revision 1

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## Acronyms and Abbreviations

AOC	Administrative Order on Consent
Arcadis	Arcadis U.S., Inc.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPC	constituent of potential concern
COPEC	constituent of potential ecological concern
DEAR	Final Phase I and Phase II Data Evaluation and Assessment Report, Revision 2
DI	deionized
DQO	data quality objective
FS	feasibility study
NBSA	Newark Bay Study Area
NYC/LI	New York City/Long Island
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCDD	polychlorinated dibenzo- <i>p</i> -dioxin
PCDF	polychlorinated dibenzofuran
PE	polyethylene
Phase III QAPP	Newark Bay Study Area Phase III Sediment Investigation Quality Assurance Project Plan Amendment
Phase III SI Field Report	Phase III Sediment Investigation Field Report
PPE	personal protective equipment
PQL	practical quantitation limit
QA	quality assurance
QC	quality control
RI	remedial investigation
SOP	standard operating procedure
SOW	Statement of Work
SQT	sediment quality triad
TEPH	total extractable petroleum hydrocarbons
Tierra	Tierra Solutions, Inc.
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

## 1. Introduction

This Phase III Sediment Investigation Field Report (Phase III SI Field Report) documents the field activities associated with implementation of the Newark Bay Study Area Phase III Sediment Investigation Quality Assurance Project Plan Amendment (Phase III QAPP; Tierra Solutions, Inc. [Tierra] 2016), as approved by the United States Environmental Protection Agency (USEPA) on September 21, 2016. The Phase III field investigation program was performed from October through December 2016. Pursuant to an Administrative Order on Consent (AOC) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA [Index 02-2004-2010]; USEPA 2004), Glenn Springs Holdings, Inc. is conducting a remedial investigation (RI) and feasibility study (FS), on behalf of Occidental Chemical Corporation (the successor to Diamond Shamrock Chemicals Company [formerly known as Diamond Alkali Company]), for the Newark Bay Study Area (NBSA).

As described in the AOC (USEPA 2004), NBSA sediments are known to contain myriad chemicals, including (without limitation): polychlorinated dibenzo-*p*-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), pesticides, and metals. Assessment of these constituents of potential concern (COPCs) is required by the AOC (USEPA 2004). The Phase III field investigation program involved collecting sediment samples for chemical analysis of these COPCs. To evaluate the COPCs, the AOC (USEPA 2004) identifies three RI-related goals:

- *RI Goal 1: Nature and Extent of Sediment Contamination.* Determine the horizontal and vertical distribution and concentrations of PCDDs, PCDFs, PCBs, PAHs, pesticides, and metals for the NBSA sediments (NBSA AOC Statement of Work [SOW], Section A.1 [USEPA 2004]).
- *RI Goal 2: Risk Assessment.* Determine the primary human and ecological receptors (endpoints) of PCDD-, PCDF-, PCB-, PAH-, pesticide-, and metals-contaminated sediments in the NBSA (NBSA AOC SOW, Section A.2 [USEPA 2004]).
- *RI Goal 3: Source Identification.* Determine the significant direct and indirect continuing sources of PCDDs, PCDFs, PCBs, PAHs, pesticides, and metals to the sediments in the NBSA (NBSA AOC SOW, Section A.3 [USEPA 2004]).

Due to the complexity of the NBSA, USEPA and Tierra agreed in 2005 that the RI would be implemented in multiple phases, as necessary. As such, sediment samples were collected in two phases during 2005 (Phase I) and 2007 (Phase II). Field activities and results from these Phase I and Phase II Sediment Investigations (SIs) are documented in the *Phase I and Phase II Field and Data Report* (Tierra 2008). Radiochemical data were evaluated with respect to the 1940 horizon and are presented in the *Final Newark Bay Study Area Remedial Investigation Phase I and Phase II Sediment Deposition Report, Revision 1* (Deposition Report; Tierra 2011). Analytical data evaluated with respect to characterization of nature and extent are presented in the *Final Phase I and Phase II Data Evaluation and Assessment Report, Revision 2* (DEAR; Tierra 2014a). The DEAR uses the Phase I and Phase II data, in addition to sediment data from

secondary sources (data collected for purposes other than the NBSA SI Program), to broadly characterize the distribution of contamination within the NBSA with respect to RI Goal 1.

On September 9, 2015, USEPA submitted a letter from Eugenia Naranjo of USEPA to Clifford Firstenberg of Tierra *Regarding Response to Tierra's Email Dated August 27, 2015, 2014 Oceanographic Data Collection – Administrative Order on Consent, for Remedial Investigation/Feasibility Study (RI/FS)* (USEPA 2015). This letter stated "...after USEPA's review of Tierra's Data Gaps Report, and during discussions to finalize the DEAR, the USEPA evaluated the need for a Phase III sediment sampling program to fill contaminant nature and extent data gaps." The letter further describes a need to characterize subunits of Newark Bay at a scale appropriate for RI/FS decision-making because the existing data only allow for bay-wide decision making (USEPA 2015). As such, the following Data Quality Objectives (DQOs) were established to confirm that data collected during the Phase III sampling program were consistent with, and contributed to, meeting RI Goal 1, listed above, as well as to support RI/FS decision-making. The DQOs are as follows:

1. Determine the approximate boundaries of subunits within Newark Bay that contain statistically distinct concentrations of COPCs, especially dioxin.
2. Determine the means and variances of COPC concentrations within these subunits.
3. Determine how surface sediment COPC concentrations within these subunits vary with time.

Surface sediment samples were collected as part of the Phase III sampling program to meet these DQOs in accordance with the Phase III QAPP (Tierra 2016).

### **1.1 Newark Bay Study Area**

Newark Bay, part of the New York/New Jersey (NY/NJ) Harbor Estuary, is located between the shores of Newark and Elizabeth to the west, Jersey City and Bayonne to the east, the confluence of the Passaic and Hackensack Rivers to the north, and Staten Island to the south. Newark Bay is linked to Upper New York Bay by the Kill van Kull and to Raritan Bay by the Arthur Kill (Figure 1). Figure 2 provides an aerial photograph demarcating local landmarks, bay reaches, and navigation channels.

The NBSA is situated within one of the most urbanized and industrialized areas in the United States and is known to be contaminated with a number of chemicals, including, but not limited to, PCBs, PAHs, pesticides, herbicides, volatile organic compounds (VOCs), semivolatile organic compounds, PCDDs/PCDFs, and metals (National Oceanic and Atmospheric Administration 1995; USEPA 1998).

The majority of the NBSA shoreline consists of commercial, developed, or abandoned properties. Information from the Reconnaissance Survey in September 2013 indicates that a majority of the shoreline (66%) consists of bulkhead and riprap (Tierra 2015a). Residential and recreational areas are located along the waterfront in many of these bulkhead and riprap areas, particularly along the eastern shoreline. Four new residential areas have been proposed for development (Tierra 2013).

## 1.2 Investigative Approach

The data collected pursuant to the Phase III QAPP (Tierra 2016) will be used to fill nature and extent data gaps and to characterize subunits of Newark Bay at a scale appropriate for RI/FS decision-making. Data collected from other sampling efforts in the NBSA will also be used in conjunction with the data collected under the Phase III QAPP (Tierra 2016) to support the RI/FS. For example, sediment data collected in 2014 and 2015 as part of the sampling efforts described in the Crab and Clam Sampling and Analysis Quality Assurance Project Plan (Tierra 2014b) and Sediment Quality Triad and Porewater Sampling and Analysis Quality Assurance Project Plan (Tierra 2015b) will also be used to evaluate COPCs in the NBSA.

Surface sediment samples from approximately the top 6 inches (approximately 15 centimeters) were collected from locations throughout the NBSA and submitted for chemical analyses.

## 1.3 Sampling Rationale

The number of sediment sampling locations proposed for the Phase III field investigation program was determined based on the size (areal extent) of each subunit targeted for sampling, as provided by the USEPA (USEPA 2015), using a stratified, gridded sample design as described in the *Technical Memorandum: Risk Assessment Field Sampling and Analysis Program – Newark Bay Study Area* (Arcadis U.S., Inc. [Arcadis] 2015). For the Phase III program, Newark Bay was divided into six subunits proposed by the USEPA (USEPA 2015), as shown on Figure 3. Using SAS® 9.3, to assess the Phase I and Phase II surface sediment data and surface sediment data from secondary sources, a sample size was calculated for each subunit as the minimum size necessary to estimate the mean concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin with less than 20 percent relative error at 95 percent confidence. Table 1 presents the minimum number of samples required, per subunit, to meet these statistical criteria.

**Table 1**  
**Required Number of Samples per Subunit**

<b>Subunit</b>	<b>Required Number of Samples</b>
1	84
2	35
3	19
4	35
5	45
6	45
<b>Total</b>	<b>263</b>

Using the number of samples required for each subunit shown in Table 1, a sampling grid was prepared and overlaid on each subunit. Each subunit grid consisted of identically-sized grid cells equaling the number of required samples for the given subunit. USEPA approved the size and layout of the individual grids via email

on June 10, 2016. A proposed Phase III sampling location was then placed in the center of each grid cell. Per the June 10, 2016 email:

- For grid cells where a historical Phase I or II sediment core fell within the grid cell, the proposed Phase III sampling location was adjusted to the historical core location rather than the center of the grid cell.
- For grid cells where a surface sediment sample was collected during the 2014 crab and clam or 2015 sediment quality triad (SQT) sampling programs, a Phase III sample was not required to be collected. (It is assumed that the 2014 crab and clam sediment sampling locations and/or 2015 SQT sampling locations are representative of current surface sediment concentrations.)

Based on these conditions, a total of 231 Phase III sediment sampling locations were proposed. Of these 231 proposed sampling locations for Phase III, 185 locations were planned for collection using a vibracore device and would be sent to the laboratories for chemical analysis as individual samples. The remaining 46 locations, located in the dredged navigation channel and port channels, were planned for collection using a grab sampling device and were to be combined into 10 composite samples prior to being submitted to the laboratories for chemical analysis. The 10 composite samples would be prepared as follows:

- Composite Sample 1: Six samples from Subunit 3 would be combined into one composite sample to represent Port Newark Channel.
- Composite Sample 2: Eight samples from Subunit 2 would be combined into one composite sample to represent Elizabeth Channel.
- Composite Sample 3: Three samples from Subunit 2 would be combined into one composite sample to represent South Elizabeth Channel.
- Composite Sample 4: Three samples from Subunit 3 would be combined with four samples from Subunit 2 to represent a portion of the main dredged navigation channel.
- Composite Samples 5 through 9: 20 samples from the main dredged navigation channel of Subunit 2 would be combined into 5 composite samples to represent the main dredged navigation channel in Subunit 2.
- Composite Sample 10: One sample from Subunit 3 would be combined with one sample from Subunit 2 to represent the Port Newark Pierhead Channel.

A summary of the proposed Phase III sediment sampling locations by subunit is provided in Table 2.

**Table 2**  
**Number of Proposed Phase III Sampling Locations**

<b>Subunit</b>	<b>Minimum Required Number of Samples</b>	<b>Number of Grid Cells Containing One or More Crab and Clam or SQT Sediment Samples</b>	<b>Total Number of Proposed Sampling Locations for Phase III</b>	<b>Total Number of Samples to be Analyzed During Phase III</b>	<b>Number of Phase I/II Locations to be Resampled</b>
1	84	10	74	74	14
2	35	0	36	7*	NA
3	19	2	18	11**	5
4	35	4	31	31	6
5	45	13	32	32	6
6	45	5	40	40	6
<b>Total</b>	<b>263</b>	<b>34</b>	<b>231</b>	<b>195***</b>	<b>37</b>

**Notes:**

\* 36 samples will be collected from Subunit 2; however, a subset of 31 of these samples will be condensed into 7 composite samples (representing only Subunit 2) for analysis.

\*\* 10 samples will be collected from Port Newark Channel, Port Newark Pierhead Channel, and the dredged navigation channel areas in Subunit 3. These 10 samples and 5 of the 36 samples collected from Subunit 2 will be condensed into 3 composite samples for analysis. 6 samples will be condensed into 1 composite sample to represent Port Newark Channel, 3 samples from Subunit 3 will be combined with 4 samples from Subunit 2 to represent a portion of the main navigation channel, and 1 sample from Subunit 3 will be combined with 1 sample from Subunit 2 to represent the Port Newark Pierhead Channel. Another 8 grab samples from Subunit 3 will be analyzed as discrete samples.

\*\*\* Total Sample Counts: 231 is the total number of sediment samples to be collected; 195 is the total number of samples to be analyzed. 10 composite samples, representing 46 sampling locations, collected from the dredged navigation channel and port channels, will be analyzed.

NA = not applicable; all re-samples collected within the subunit will be included as composites.

#### 1.4 Quality Assurance/Quality Control Program

Field and laboratory quality assurance (QA)/quality control (QC) procedures were performed according to, and consistent with, the protocols described in the Phase III QAPP (Tierra 2016). QA/QC samples were collected to evaluate the precision, accuracy, representativeness, completeness, and comparability of both field and laboratory procedures. Two types of QC checks (field and laboratory) were used to evaluate the data quality. Field and laboratory QA procedures, outlined in the field and laboratory standard operating procedures (SOPs) included in the Phase III QAPP (Tierra 2016), were followed to document proper sample handling and tracking. The field QA/QC program is described in Section 2.9.2 of this Phase III SI Field Report.

## **2. Field Activities**

The Phase III field investigation program was conducted in accordance with the Phase III QAPP (Tierra 2016) and included the following field activities:

- Pre-mobilization
- Mobilization
- Sediment sample collection
- Sediment sample transport and storage
- Sample processing
- Sample handling, preservation, and shipment to laboratories
- Sample identification and tracking
- Management of field data
- Field activity assessment

These field activities are described below.

### **2.1 Pre-Mobilization Activities**

Prior to initiating sediment sample collection, a series of pre-mobilization activities were completed, including permitting, sample location utility clearance, field readiness review, and pre-program field blank sample collection. These activities are described below.

#### **2.1.1 Permitting**

The Phase III QAPP (Tierra 2016) field activities did not require obtaining permits, but required notification of the project scope to the United States Coast Guard (USCG) Local Notice to Mariners. The USCG was notified by letter on September 30, 2016.

#### **2.1.2 Sample Location Utility Clearance**

Utilities located near proposed sediment sampling locations were identified with assistance from New Jersey One Call and New York City/Long Island (NYC/LI) One Call. New Jersey One Call and NYC/LI One Call identified 42 companies as potentially having underground utilities near the proposed Phase III sampling

locations. These companies were contacted to confirm if the proposed sampling locations were near their respective subsurface utilities.

Nine proposed sampling stations (269, 284, 326, 327, 328, 329, 332, 367, and 380) were relocated prior to or during implementation of the Phase III field investigation program due to their proximity to identified utilities. Each of these relocated sampling locations remained within the planned grid squares shown in the Phase III QAPP (Tierra 2016) and were approved by USEPA either via email or on the sampling vessel during collection. A summary of changes to the proposed locations are summarized in Table 3, and further detail is provided in Protocol Modification Form No. 5 in Appendix A.

Prior to sampling at stations 326, 327, 328, 329, 331, 332, 380, 381, and 382, utility representatives requested notification 24 hours prior to sampling so they could observe sample collection activities. Utility representatives were contacted a minimum of 24 hours prior to sampling at these stations and were present onshore during sample collection.

### 2.1.3 Field Readiness Review

In accordance with the Phase III QAPP (Tierra 2016), a readiness review was conducted on October 13, 2016. A second readiness review for vibracoring and core processing activities was conducted on October 20, 2016. These readiness reviews were conducted to review the details of Phase III field activities, including pre-mobilization and mobilization activities and sample collection and processing. Representatives from Tierra, Arcadis, and Field and Technical Services, and analytical laboratories were present during the readiness reviews.

## 2.2 Sampling Mobilization Activities

Following pre-mobilization, Arcadis began mobilization procedures per the Phase III QAPP (Tierra 2016). Mobilization activities included setting up the sample processing area and sampling vessel mobilization. These activities are described below.

### 2.2.1 Processing Area Setup

A sample processing area was set up at the 80 Lister Avenue facility in Newark, New Jersey on October 12, 2016. For health and safety purposes, the facility's decontamination and sample processing room served as the exclusion zone, where sediment processing and equipment decontamination were conducted, and PPE and chemicals were stored. The area immediately outside the door leading to the sample processing room was used for storing additional personal protective equipment (PPE) and decontaminated sampling equipment. The facility contained a walk-in refrigerator (temperature controlled to 4 degrees Celsius) for sediment storage. Sediment samples for chemical analysis were stored in coolers within the walk-in refrigerator during processing activities, prior to being shipped/couriered to their respective laboratories.

### 2.2.2 Sampling Vessel Mobilization

On October 12, 2016, Arcadis mobilized the sampling vessel to the NBSA. The vessel is a 26-foot pontoon boat, equipped with (among other standard marine equipment) the following instrumentation and equipment: a real-time kinematic differential global positioning system, HYPACK Max marine survey positioning software, PONAR dredges, vibracore, core liners and caps, 5-gallon plastic buckets, Teflon® liners for 5-gallon buckets, and large coolers for sample storage. The Arcadis sampling vessel was moored at the Passaic River Yacht Club in Kearny, New Jersey.

## 2.3 Sediment Collection

The procedures outlined in the Phase III QAPP (Tierra 2016) included the use of a box corer, followed by hand coring of the sediment within the box corer using direct-push methods, to collect sediment from areas outside of the federal navigation channels and a grab sampler to collect sediment from areas inside the federal navigation channels. Phase III field investigation activities were implemented on October 17, 2016 using the box corer; however, after several attempts, the box corer was unable to penetrate the required minimum sample depth of 4.5 inches. After discussions with USEPA, it was decided that vibracoring would be used instead of the box corer to collect sediment from areas outside the federal navigation channels (a grab sampler would still be used to collect sediment from areas inside the federal navigation channels). This alternate sampling procedure was approved by USEPA via email on October 21, 2016 and was documented in Protocol Modification Form No. 3, provided in Appendix A. The sediment collection activities are described below.

### 2.3.1 Equipment Decontamination and Field Blank Sample Collection

Sediment collection and sample processing equipment were decontaminated in accordance with SOP No. 3 – Decontamination (Tierra 2016). As described in SOP No. 3 – Decontamination, the decontamination steps were performed as follows:

1. Alconox scrub
2. Tap water rinse
3. Nitric acid rinse
4. Deionized (DI) water rinse
5. Methanol rinse
6. Hexane rinse
7. DI water flush

Following decontamination, the equipment was allowed to air dry. Once dry, the equipment was wrapped in aluminum foil, shiny side out, and placed on plastic-lined and covered shelving units until needed. This decontamination process was continued throughout the Phase III program.

Sample processing equipment was decontaminated at the end of each week and PONAR grab samplers were decontaminated at the end of each sampling day. After each decontamination event, field blanks were

collected to monitor potential contamination present on field equipment. Such contamination, if present, can be the result of ineffective decontamination. The field blank samples were collected using laboratory-supplied DI water (or hexane for dioxins/furans) and analyzed for the analytes listed in Worksheet #15-1 of the Phase III QAPP (Tierra 2016).

In addition to the equipment used to process the sediment samples and the PONARs, the 4-inch-diameter Lexan™ core liners and caps used for vibracoring were also decontaminated. Core liners and caps were decontaminated in accordance with SOP No. 3 – Decontamination (Tierra 2016) in three (3) batches prior to being used to collect sediment. After decontaminating the core liners and caps, field blanks were collected to confirm that the core liners and caps were void of any contamination or to quantify any remaining contamination. Three field blanks (NB3153FB, NB3156FB, and NB3158FB) were collected, each representing one batch of decontaminated core liners and caps. Field blanks were collected on October 21 and November 1 and 9, 2016. The analytical results for the core liner and caps field blanks are provided in Appendix B. Appendix B only includes field blank laboratory results for blanks collected from the Teflon® liners, core liners, and core caps as these were collected prior to initial use during sample collection and processing activities. Results for field blanks collected during decontamination of the sample processing equipment and PONARs will be provided with the sediment analytical results as part of a future deliverable.

The Teflon® liners used inside the plastic 5-gallon buckets provided protection from potential contamination due to possible leaching of COPCs and COPECs from the plastic buckets into the sediment. Prior to use, a field blank (NB3151FB) was collected to confirm that the Teflon® liners were void of any chemical contamination, and therefore, appropriate for use. The Teflon® liner field blank analytical results are provided in Appendix B.

#### 2.3.2 Sediment Collection with a Vibracore

Sediment cores were collected from 173 locations in 19 days during a 6-week period from October 24 through December 7, 2016. As described in Section 2.3.3, 12 planned coring locations were changed to grab sample locations during sediment collection activities, resulting in 173 vibracore locations instead of the planned 185. Target locations were located in accordance with SOP No. 1 – Locating Sample Points Using Global Positioning System and SOP No. 2 – Positioning (Tierra 2016). Sediment cores were collected in accordance with SOP No. 11 – Sediment Collection Using a Vibracore Device, as approved by USEPA via email on October 21, 2016. The sampling vessel was positioned over the target sample location using spuds (for shallow water locations [i.e., less than 30 feet]) or an anchor (for deep water locations [i.e., greater than 30 feet]). Following positioning over the target sample location, sediment was collected using a vibracore with a 4-inch-diameter core liner measuring 2 or 3 feet in length. Each core was advanced at least 9 inches (but no more than 21 inches) below the sediment surface, retrieved, and capped at the bottom. Once retrieved, each core was measured with a tape measure to confirm the required recovery was achieved. Overlying water was then drained by cutting a slit in the liner using a decontaminated hacksaw blade and the remaining liner was cut and removed. The top of the core was then capped and the caps were secured with tape at both ends. The cores were then stored vertically on ice until delivery to the sample processing facility.

During sediment collection, 13 locations were field-adjusted from their planned locations due to:

- Barges over the target location (Locations 234, 239, 243, 248-252, and 365)
- Presence of a bridge pier (Location 333)
- Pilings prohibiting access to the planned sampling area (Locations 231 and 244)
- The target location fell on land (Location 372).

These revised sampling locations were discussed with and verbally approved by the USEPA oversight person in the field during sediment collection activities.

Field changes are summarized in Table 3 and in Protocol Modification Form No. 5, provided in Appendix A. Coordinates of the final sampling locations are provided in Table 4, and the final sediment sampling locations are shown on Figures 3 through 6. Core Collection Forms are provided in Appendix C and Individual Core Collection Forms are provided in Appendix D.

### 2.3.3 Sediment Collection with a PONAR

Sediment grab samples were collected from 47 locations in 9 days during a 4-week period from November 14 through December 7, 2016. As described below, 11 planned sampling locations were abandoned during collection due to lack of sediment, and 12 coring locations were changed to grab sample locations during sediment collection activities. As such, 47 grab sample locations were collected instead of the planned 58. Sample locations were located in accordance with SOP No. 1 – Locating Sample Points Using Global Positioning System and SOP No. 2 – Positioning (Tierra 2016). Sediment grab samples were collected in accordance with SOP No. 6 – Sediment Sample Collection (Tierra 2016). Due to high vessel traffic within the federal navigation channel, the United States Coast Guard prohibited the sampling vessel from anchoring in the navigation channel during collection of grab samples. Following positioning over the grab sample location, sediment was collected using a standard size, decontaminated PONAR dredge (approximately 9 by 9 by 6 inches) lowered by hand to the sediment surface. If the grab sample had acceptable penetration (i.e., at least 4.5 inches of sediment in the grab sampler), it was retained for processing. The same PONAR was used for collection of multiple locations intended for compositing. The PONAR was rinsed with Newark Bay water between sampling locations. A clean, decontaminated PONAR was used for collection of each successive composite sample.

In accordance with the Phase III QAPP (Tierra 2016), grab samples collected from the navigation channels were composited to create representative samples from the dredged navigation channel areas. Sediment was collected from the first acceptable sediment grab sample for each composite sample for laboratory analysis of VOCs and total extractable petroleum hydrocarbon (TEPH) purgeables using a decontaminated stainless steel spoon and laboratory-supplied Encore® samplers, as described in SOP No. 6 – Sediment Sample Collection (Tierra 2016). After the VOC and TEPH-purgeable samples were collected, the remaining

sediment in the grab sampler was placed directly into a Teflon®-lined 5-gallon plastic bucket. Each Teflon® liner was sealed with electrical tape, lids were placed on each bucket, and the buckets were labeled prior to storage in the onboard coolers filled with ice.

During sediment collection, the target coordinates of six sample locations were adjusted from their original locations. These locations were moved due to barges over the target location (Location 253), the location falling on a restricted shoreline (Location 287), or unacceptable recovery at the planned location (Locations 254, 258, 298, and 301). Additionally, 11 planned sampling locations (Locations 198, 240, 255, 257, 259, 271, 272, 274, 279, 280, and 299) were abandoned due to lack of sediment (i.e., no recovery) after several attempts. These revised sampling locations and abandoned locations were discussed with and verbally approved by USEPA oversight personnel in the field. Additional details can be found on Protocol Modification Form No. 5, provided in Appendix A.

In addition to the adjusted and abandoned locations discussed above, 12 coring locations were changed to grab sample locations during sediment collection activities. Locations 230, 232, 240, 241, 242, 291, 292, 293, 294, 295, 300, and 198 were planned to be sampled via vibracoring, however, these locations were in the navigation channel where anchoring is not allowed by the USCG due to safety considerations. Therefore, in an email dated December 5, 2016, the USEPA approved the collection of sediment from these locations using a standard size PONAR. These seven grab samples were collected in accordance with SOP No. 6 – Sediment Sample Collection (Tierra 2016), and were not composited with other locations since these locations were originally intended as discrete grab samples.

Field changes are summarized in Table 3 and in Protocol Modification Form No. 5, provided in Appendix A. Coordinates of the final sampling locations are provided in Table 4, and the final sediment sampling locations are shown on Figures 3 through 6. Surface Sediment Collection Forms are provided in Appendix E.

#### 2.3.4 Field Quality Assurance/Quality Control Program

Field QC samples were submitted to the laboratory. Two types of field QC samples were used: blanks (field and trip) and field duplicates. Performance evaluation (PE) samples were also submitted to the analytical laboratories to evaluate each laboratory's ability to accurately measure the concentration of constituents in sediment. Each is described below.

##### 2.3.4.1 Trip Blanks

Trip blanks were submitted for VOCs, mercury, and methylmercury analyses only. The trip blanks were obtained from the analytical laboratories and carried with the field sample bottles during shipment from the sediment processing area to the laboratories.

#### 2.3.4.2 *Field Duplicates*

Field duplicates were processed at a frequency of one field duplicate per 20 field samples per matrix and per analytical method. Field duplicates were prepared by transferring an aliquot of a given sediment homogenate into two separate sets of sample containers. The duplicate pair was then submitted “blind” to the laboratory. These blind samples were noted in a logbook and given a unique sample number that did not indicate to the laboratory that the sample was a QC check. Field duplicate information is provided in Table 7.

#### 2.3.4.3 *Performance Evaluation Samples*

PE samples were submitted to the analytical laboratories at a frequency of one per 40 samples or one per sample delivery group containing a USEPA split sample in accordance with Worksheet #14 of the Phase III QAPP (Tierra 2016). Six PE samples were submitted for analysis during the Phase III field investigation program.

### **2.4 Sample Transport and Storage**

Samples were transported and stored in accordance with the procedures outlined in SOP No. 6 – Sediment Sample Collection (Tierra 2016). During sediment collection activities, sediment was stored on the vessel in capped core liners or covered Teflon®-lined 5-gallon buckets stored vertically in large coolers filled with ice. To maintain the appropriate storage temperature, the ice in the coolers was replaced daily. At the end of each sampling day, the coolers containing the capped core liners and/or 5-gallon buckets were unloaded from the vessel and transported from the marina to the 80 Lister Avenue facility in Newark, New Jersey for storage in the walk-in refrigerator (maintained at 4 degrees Celsius) for subsequent processing.

### **2.5 Sediment Processing and Sample Collection**

Sediment was processed in 19 days during a 6-week period from October 25 through December 8, 2016 in accordance with SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis and SOP No. 6 – Sediment Sample Collection (Tierra 2016), and SOP 12 – Core Processing, as approved by USEPA via email on October 21, 2016. Sediment collected from each sampling location was, with one exception, processed the day following collection. Grab samples collected on November 29, 2016, representing one composite sample (NB03SED-CHMCOMP03), were processed the same day they were collected. Additional details are provided below.

#### 2.5.1 Procedures Used for Sample Processing

##### 2.5.1.1 *Sediment Cores*

Sediment cores were processed in accordance with SOP 12 – Core Processing, as approved by USEPA via email on October 21, 2016 and as documented in Protocol Modification Form No. 3, provided in Appendix A. With the core in the vertical position, the top cap was removed and any overlying water was drained by

drilling a hole with a decontaminated drill bit approximately half the distance between the sediment-water interface and the water surface. After the water drained, additional holes were drilled following the same pattern and the water allowed to drain until the final hole was drilled just above the sediment surface. Sediment was then collected from the top of the core for laboratory analysis of VOCs and TEPH purgeables using a decontaminated stainless steel spoon and laboratory-supplied Encore® samplers. The remaining sediment from the top 6 inches (0- to 6-inch interval) was removed from the core liner with a decontaminated stainless steel spoon and placed in a decontaminated stainless steel bowl. If more than one core was collected from a given location to provide extra volume needed to collect quality control samples (i.e., matrix spike/matrix spike duplicate [MS/MSD] or field duplicate samples), all sediment from the top 6 inches (0- to 6-inch interval) of each core was removed using a decontaminated stainless steel spoon and placed into the same decontaminated stainless steel bowl.

After the sediment was placed into the stainless steel bowl, one Core Lithology/Description Form and one Sample Processing Form was completed for each sampling location. A visual description of each sample was recorded on the Core Lithology/Description Form, and the chemical analyses to be conducted by the laboratory were recorded on the Sample Processing Form. Core Lithology/Description Forms are provided in Appendix F and Surface Sediment Sample Processing Forms are provided in Appendix G. In addition, photographs were taken of each sample. Photographs were taken of the sediment while it was in the core liner as well as before and after homogenization. Photographs of each sample are provided in Appendix H.

The sediment was then mixed until textural, color, and moisture homogeneity were achieved. Once homogenized, the appropriate amount of sediment for each analysis, as described in the Phase III QAPP (Tierra 2016), was placed in appropriately labeled sample containers. Once filled, each sample container was sealed and stored in the walk-in cooler for shipment/courier to the laboratory at the end of the sampling day. The sediment samples collected during Phase III field investigation activities are summarized in Table 5.

There were two deviations from the Phase III QAPP (Tierra 2016) during sample processing activities. These field modifications are documented in Protocol Modification Form No. 6, provided in Appendix A.

- The Phase III QAPP called for adjusting the core segmentation scheme based on the percent recovery and the length of the sediment in the core tube. However, after discussion with USEPA via teleconference on October 26, 2016, it was decided this adjustment was not necessary for the Phase III Sediment Investigation. Samples from cores 384, 385, 386, 387, 388, 391, 395, 399, 407, 408, and 409 were adjusted; the remainder were not.
- To prevent/minimize the loss of suspended sediment, the core dewatering was modified to allow a drill bit to be used to remove excess water from the core tube.

#### 2.5.1.2 Navigation Channel Composite Samples

During the first day of composite sample homogenization on November 15, 2016, an improved approach for homogenizing composite samples was agreed upon with USEPA's on-site representative. This improved approach is documented in Protocol Modification Form No. 7 in Appendix A and described below.

Prior to sample collection, the contents of each individual grab sample bucket was placed into its own decontaminated stainless steel bowl and homogenized. (As described in Section 2.3.3, VOCs and TEPH samples were collected on the sampling vessel immediately following sediment collection.) Then, aliquots of sediment from each individual sampling location making up each composite sample were placed together in a separate decontaminated stainless steel bowl and homogenized. The aliquots of sediment were collected using a 16-ounce laboratory-supplied sample jar(s) as described below:

- If the composite comprised two individual grab samples, three (3) 16-ounce jars from each individual grab sample were filled with zero headspace.
- If the composite comprised three or four individual grab samples, two (2) 16-ounce jars from each individual grab sample were filled with zero headspace.
- If the composite comprised five or more individual grab samples, one (1) 16-ounce jar from each individual grab sample were filled with zero headspace.

Once all aliquots were combined in a single stainless steel bowl, the sediment samples were mixed until textural, color, and moisture homogeneity was achieved. Once homogenized, the appropriate amount of homogenized sediment for each analysis, as described in the Phase III QAPP (Tierra 2016), was placed in appropriately labeled sample containers. Once filled, each sample container was sealed and stored in the walk-in cooler for shipment to the laboratory at the end of the sampling day. The composite sediment samples collected during Phase III field investigation activities are provided in Table 5.

During sample processing, one Composite Surface Sediment Sample Processing Form was completed for each sampling location. A visual description of each sample was recorded on the Composite Surface Sediment Sample Processing Form during sample collection, both prior to and after homogenization. Composite Surface Sediment Sample Processing Forms are provided in Appendix I. In addition, photographs were taken of each sample. Photographs were taken of the sediment from each individual location before mixing, and of the composite after homogenization. Photographs of each sample are provided in Appendix H.

As described in Section 2.3.2, several locations were abandoned during sediment collection due to insufficient recovery. As such, five of the 10 planned composite samples were comprised of less than the planned number of individual sample locations. Table 6 summarizes the number of planned versus actual individual locations that made up each composite sample. A list of the individual sample locations that comprise each composite sample is provided in Table 7.

**Table 6**  
**Planned Versus Actual Individual Sample Locations**  
**for Navigation Channel Composite Samples**

<b>Composite Sample Name</b>	<b>Planned Number of Individual Locations Included in Composite</b>	<b>Actual Number of Individual Locations Included in Composite</b>
NB03SED-CHMCOMP01	6	5
NB03SED-CHMCOMP02	8	5
NB03SED-CHMCOMP03	3	3
NB03SED-CHMCOMP04	7	7
NB03SED-CHMCOMP05	4	2
NB03SED-CHMCOMP06	3	2
NB03SED-CHMCOMP07	4	2
NB03SED-CHMCOMP08	4	4
NB03SED-CHMCOMP09	5	5
NB03SED-CHMCOMP10	2	2

#### 2.5.2 United States Environmental Protection Agency Split Samples

Thirty split samples were collected by USEPA for sediment chemical analysis. Arcadis personnel filled the USEPA-provided sample jars with sediment to at least the required minimum sample mass and provided the jars to USEPA oversight personnel for handling, preservation, and shipment to laboratories. USEPA split samples were stored in a separate on-site chest freezer, secured with a padlock, and under USEPA's chain of custody. Split sample details are presented in Table 8.

#### 2.5.3 Investigation-Derived Waste

Investigation-derived waste was managed in accordance with SOP No. 4 – Management and Disposal of Residuals (Tierra 2016). Drums were used to collect residual sediment, spent PPE, trash, and aqueous waste generated during sediment collection and processing activities. Residual sediment, spent PPE, and trash were containerized in DOT-approved 55-gallon drums and stored at the 80 Lister Avenue facility, where they will be profiled and disposed of in accordance with the Final Waste Characterization Quality Assurance Project Plan for the Diamond Alkali Superfund Site, Operable Unit 1/CERCLA Non-Time-Critical Removal Action – Lower Passaic River Study Area and Newark Bay Study Area, Revision 2 dated June 2013 (Tierra 2013). Aqueous waste was placed in drums for treatment at the on-site water treatment system, which is capable of treating aqueous, investigation-derived wastes that result from sediment processing and decontamination activities.

## 2.6 Sample Analysis Deviations from the Phase III QAPP

There were two deviations from the Phase III QAPP (Tierra 2016) regarding chemical analysis of samples. These field modifications are documented in Protocol Modification Form No. 1, Protocol Modification Form No. 2, Protocol Modification Form No. 8, and Protocol Modification Form No. 9, provided in Appendix A.

- Protocol Modification Form No. 1 – The Phase III QAPP lists measurement performance criteria for water (field blanks) and sediment matrices. The quality control “Laboratory Control Sample” states a percent recovery for all target analytes of 70-130 for field blanks and 70-120 for sediment. Eurofins Lancaster Laboratories has alternate acceptance criteria, imposing the stricter percent recoveries of 60-120 for field blanks and sediment. These alternate acceptance criteria were used during analysis of Phase III field blank and sediment samples.
- Protocol Modification Form No. 2 – The Phase III QAPP lists measurement performance criteria for water (field blanks) and sediment matrices. The quality control “Second Source Standard” states a frequency of “Prior to every 12-hour period following the daily calibration verification.” Vista Analytical performs confirmation of a second source standard with every initial calibration; therefore, the frequency of the Second Source Standard quality control sample was revised to “With every initial calibration.”
- Protocol Modification Form No. 8 – The Phase III QAPP specifies validation criteria for PCB Congener analysis of sediment samples as “EDS SOP: Congener PCB, Rev 3, 7/10.” This validation SOP for PCB Congeners has tighter acceptance criteria for PCB retention times that cause otherwise acceptable data (per EPA’s validation SOP) to be rejected; therefore, “EDS SOP: Congener PCB, Rev 3, 7/10” was replaced with USEPA Region II SOP for PCB Congeners, SOP HW-46, Revision 1 dated September 2008.
- Protocol Modification Form No. 9 – The Phase III QAPP lists measurement performance criteria for PCB Congener analysis of sediment samples. The quality control “Ongoing Precision and Recovery” (OPR) has a corrective action to re-extract and re-analyze if the quality control acceptance ranges are exceeded (if sufficient sample is available). Eurofins Lancaster Laboratories has proven that the instances of OPR exceedances are not systemic and other quality control parameters provide evidence of precision; therefore, Eurofins Lancaster Laboratories reported the data with isolated OPR recoveries out of compliance and the data were qualified in accordance with the data validation criteria.

## 2.7 Sample Handling, Preservation, and Shipment to Laboratories

Samples for chemical analysis were handled, preserved, and shipped to laboratories in accordance with SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis (Tierra 2016). Following placement of samples in jars, the jar lids were secured and sealed with clear tape; jar labels were affixed and separately sealed with clear tape. Sample jars were then placed in appropriately-sized bubble

wrap and sealed inside plastic zip-type bags. Sealed and wrapped jars were placed in padded coolers filled with ice. Trip blanks (where required) and temperature blanks were placed in coolers per SOP No. 5 – Containers, Preservation, Handling and Tracking of Samples for Analysis (Tierra 2016). Coolers were appropriately sealed with signed custody seals prior to shipment to, or pickup by, the analytical laboratories.

There was one deviation from the Phase III QAPP (Tierra 2016) during sample handling, preservation, and shipping activities. Sediment and field blank samples collected for pesticides analysis on Friday of each week were stored at the Lister Avenue facility, under secure chain-of-custody in the locked walk-in cooler, and were shipped to Vista Analytical on the following Monday to avoid shipment of samples to the laboratory for Saturday delivery. In previous sampling programs, samples shipped for Saturday delivery have, with higher frequency than weekday deliveries, been misplaced in the overnight shipping system and did not arrive at the laboratory until Monday, with the temperature exceeding the 4 degrees Celsius (+/-) temperature requirement. This modification to the QAPP is documented in Protocol Modification Form No. 4, provided in Appendix A.

## **2.8 Sample Identification and Tracking**

Samples were identified and tracked using the nomenclature, conventions, and procedures described in SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis and Section 4.3 of the Phase III QAPP (Tierra 2016). Prescribed custody procedures were followed, with shipping receipts acting as documentation of custody during sample shipment.

Upon receipt, laboratory personnel inspected samples for integrity, agreement with chain-of-custody forms, and evidence of tampering during shipment. Laboratory personnel also verified that the shipping container temperatures were within the acceptable range. Laboratory internal chain-of-custody procedures were followed, as outlined in the Phase III QAPP (Tierra 2016).

## **2.9 Management of Field Data**

Field documentation was completed in accordance with SOP No. 8 – Documenting Field Activities and SOP No. 9 – Data Management (Tierra 2016). Pertinent field data, including weather conditions, air temperature, field personnel, field equipment, field equipment calibration, health and safety documentation, utility clearance, sample collection, sample coordinates, and processing were recorded in daily logbooks and/or on field forms. Field forms are provided in Appendices C through G and I and daily logbook entries are provided in Appendix J.

## **2.10 Internal Field Audits**

Arcadis personnel performed internal field audits on sample processing activities on October 27, 2016 and on sediment collection activities on November 7, 2016 in accordance with the Phase III QAPP (Tierra 2016). The audits evaluated the tasks identified in the Phase III QAPP (Tierra 2016), including sediment collection; sample processing, transport, and storage; sample handling, preservation, and shipment; data collection

and management; and project documentation. Observations and audit findings were documented in field audit summary memoranda. Corrective actions were verified and documented by project personnel in the field audit summary memoranda (Arcadis 2016a, 2016b).

### 3. References

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USEPA. 1998. Sediment Quality of the NY/NJ Harbor System. EPA/902/R-98/001. U.S. Environmental Protection Agency, Regional Environmental Monitoring and Assessment Program (REMAP), Edison, New Jersey.

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## Tables

**Table 3**  
**Changes to Sampling Locations During Phase III Sampling Activities**

Location ID	Date Sampled	Sample Type	Field Change	Reason for Change	Target Sampling Location as per the Phase III QAPP Amendment		Actual Sample Location	
					Northing (NAD83)	Easting (NAD83)	Northing (NAD83)	Easting (NAD83)
198	12/6/2016	Grab	location abandoned	no recovery	662108	588724	NA	NA
231	11/17/2016	Vibracore	location moved	pilings prohibiting access to target location	658850	586986	658916	587174
234	12/5/2016	Vibracore	location moved	barge over target location	658025	588604	658053	588323
239	12/5/2016	Vibracore	location moved	barge over target location	659238	584884	659616	585227
240	12/5/2016	Grab	location abandoned	no recovery	658941	585454	NA	NA
243	12/6/2016	Vibracore	location moved	barge over target location	657759	587736	657745	587743
244	12/6/2016	Vibracore	location moved	pilings prohibiting access to target location	657496	588302	657743	588338
248	11/30/2016	Vibracore	location moved	barge over target location	659060	584067	659185	584068
249	11/30/2016	Vibracore	location moved	barge over target location	658777	584637	659071	584389
250	12/6/2016	Vibracore	location moved	barge over target location	658468	585219	659086	585926
251	12/6/2016	Vibracore	location moved	barge over target location	657837	586325	657795	586490
252	12/6/2016	Vibracore	location moved	barge over target location	657644	586886	657527	586991
253	11/16/2016	Grab	location moved	barge over target location	675605	586563	675466	586671
254	11/16/2016	Grab	location moved	unacceptable recovery at target location	674784	587385	674784	587403
255	11/16/2016	Grab	location abandoned	no recovery	674467	588459	NA	NA
257	11/16/2016	Grab	location abandoned	no recovery	673354	589432	NA	NA
258	11/16/2016	Grab	location moved	unacceptable recovery at target location	672679	590477	672747	590731
259	11/16/2016	Grab	location abandoned	no recovery	671860	590994	NA	NA
269	11/29/2016	Grab	location moved	PSEG utility line near target location	665483	588524	665467	588490
271	11/30/2016	Grab	location abandoned	no recovery	664115	590607	NA	NA
272	11/30/2016	Grab	location abandoned	no recovery	663247	590161	NA	NA
274	11/17/2016	Grab	location abandoned	no recovery	661276	588352	NA	NA
279	11/17/2016	Grab	location abandoned	no recovery	659299	589762	NA	NA
280	11/17/2016	Grab	location abandoned	no recovery	658877	590919	NA	NA
284	11/30/2016	Grab	location moved	Colonial utility line near target location	660525	580907	660245	581007
287	11/30/2016	Grab	location moved	restricted shoreline	658392	577043	658505	577688
298	11/14/2016	Grab	location moved	unacceptable recovery at target location	678264	591603	678031	591685
299	11/14/2016	Grab	location abandoned	no recovery	677794	592334	NA	NA
301	11/14/2016	Grab	location moved	unacceptable recovery at target location	676281	593287	676267	593319
326	11/3/2016	Vibracore	location moved	Transco and PSEG utility lines near target location	680615	597252	680677	597287
327	11/3/2016	Vibracore	location moved	Transco and PSEG utility lines near target location	679672	599234	679680	599213

Table 3 - Summary of Changes

**Table 3**  
**Changes to Sampling Locations During Phase III Sampling Activities**

Location ID	Date Sampled	Sample Type	Field Change	Reason for Change	Target Sampling Location as per the Phase III QAPP Amendment		Actual Sample Location	
					Northing (NAD83)	Easting (NAD83)	Northing (NAD83)	Easting (NAD83)
328	11/3/2016	Vibracore	location moved	Transco and PSEG utility lines near target location	679043	599812	679048	599834
329	11/3/2016	Vibracore	location moved	Transco and PSEG utility lines near target location	678773	600357	678766	600346
332	11/3/2016	Vibracore	location moved	Transco and PSEG utility lines near target location	678064	599964	678051	599988
333	11/2/2016	Vibracore	location moved	bridge pier at target location	679048	596511	679099	596553
365	11/9/2016	Vibracore	location moved	barge over target location	666246	592642	666176	592623
367	12/6/2016	Vibracore	location moved	Spectra/Texas Eastern and Tuscarora, Tidewater, and Tosco utility lines near target location	663856	591679	663858	591681
372	11/1/2016	Vibracore	location moved	target fell on land	685191	601245	685256	601218
380	11/3/2016	Vibracore	location moved	Transco and PSEG utility lines near target location	679805	598319	679955	598428

**Notes:**  
NA = not applicable  
NAD83 = North American Datum of 1983, New Jersey State Plane in feet  
PSEG = Public Service Enterprise Group  
USEPA = United States Environmental Protection Agency

**Table 4**  
**Phase III Sampling Locations**

Location ID	Date Sediment Collected <sup>1</sup>	Target Northing (NAD83)	Target Easting (NAD83)	Actual Northing (NAD83)	Actual Easting (NAD83)	Subunit Number	Notes
<b>Vibracore Locations</b>							
179	11/9/2016	665483	587411	665483	587413	1	
180	11/9/2016	664943	587857	664944	587861	1	
181	11/9/2016	664646	588427	664645	588425	1	
182	11/9/2016	664347	588992	664347	588990	1	
183	11/9/2016	664946	586443	664940	586444	1	
184	11/9/2016	665047	586861	665045	586859	1	
185	11/10/2016	664372	587559	664373	587562	1	
186	11/10/2016	664075	588130	664074	588133	1	
187	11/10/2016	663775	588777	663778	588779	1	
188	12/7/2016	663481	589266	663485	589267	1	
189	11/10/2016	664394	586122	664398	586121	1	
190	11/10/2016	664099	586691	664101	586694	1	
191	11/10/2016	663802	587262	663806	587258	1	
192	12/7/2016	663207	588403	663201	588403	1	
193	12/7/2016	662914	588972	662912	588970	1	
194	11/10/2016	663529	586394	663527	586392	1	
195	11/10/2016	663232	586965	663229	586965	1	
196	12/6/2016	662934	587535	662936	587537	1	
197	12/6/2016	662637	588106	662639	588103	1	
199	11/10/2016	663460	584948	663461	584944	1	
200	11/10/2016	663373	585713	663375	585718	1	
201	11/10/2016	662958	586097	662953	586099	1	
202	12/6/2016	662661	586667	662664	586669	1	
203	12/6/2016	662364	587238	662369	587240	1	
204	12/7/2016	662066	587808	662067	587805	1	
205	11/14/2016	661853	588266	661860	588266	1	
206	11/10/2016	662982	584659	662986	584659	1	
207	11/14/2016	662685	585229	662686	585230	1	
208	12/5/2016	662388	585800	662390	585802	1	
209	11/16/2016	662091	586370	662089	586373	1	
210	12/6/2016	661793	586941	661797	586939	1	
211	11/14/2016	661575	587420	661572	587418	1	
212	12/5/2016	662533	583573	662534	583574	1	
213	11/14/2016	662412	584361	662413	584366	1	
214	12/5/2016	662115	584932	662110	584932	1	
215	11/16/2016	661817	585502	661816	585507	1	
216	11/16/2016	661923	585956	661917	585960	1	
217	11/16/2016	661323	586652	661324	586654	1	
218	12/5/2016	661953	583522	661955	583525	1	
219	12/5/2016	661842	584064	661842	584062	1	
220	11/16/2016	661544	584635	661545	584642	1	
221	11/16/2016	661310	585198	661312	585199	1	
222	12/5/2016	661834	582698	661835	582700	1	

Table 4 - Phase III Sampling Locations

**Table 4**  
**Phase III Sampling Locations**

Location ID	Date Sediment Collected <sup>1</sup>	Target Northing (NAD83)	Target Easting (NAD83)	Actual Northing (NAD83)	Actual Easting (NAD83)	Subunit Number	Notes
223	12/5/2016	661568	583196	661570	583193	1	
224	11/16/2016	661305	583761	661311	583765	1	
225	11/16/2016	661165	584348	661165	584345	1	
226	11/17/2016	658938	587773	658934	587775	1	
227	11/17/2016	658116	589523	658120	589525	1	
228	12/5/2016	661528	581776	661526	581778	1	
229	12/5/2016	661149	582911	661147	582910	1	
231	11/17/2016	658850	586986	658916	587174	1	
233	11/17/2016	658322	588033	658321	588035	1	
234	12/5/2016	658025	588604	658053	588323	1	
235	12/5/2016	661111	581453	661115	581455	1	
236	11/30/2016	660021	583165	660024	583161	1	
237	11/30/2016	660004	583753	660005	583755	1	
238	11/30/2016	659536	584313	659537	584317	1	
239	12/5/2016	659238	584884	659616	585227	1	
243	12/6/2016	657759	587736	657745	587743	1	
244	12/6/2016	657496	588302	657743	588338	1	
245	12/5/2016	660932	580582	660934	580580	1	
246	12/6/2016	659881	581683	659881	581677	1	
247	11/30/2016	659431	583122	659430	583126	1	
248	11/30/2016	659060	584067	659185	584068	1	
249	11/30/2016	658777	584637	659071	584389	1	
250	12/6/2016	658468	585219	659086	585926	1	
251	12/6/2016	657837	586325	657795	586490	1	
252	12/6/2016	657644	586886	657527	586991	1	
289	12/1/2016	686885	601907	686887	601905	3	
290	12/1/2016	685907	601142	685910	601147	3	
307	10/27/2016	682915	600175	682911	600178	4	
308	10/27/2016	682671	600807	682665	600804	4	
309	10/27/2016	682655	599164	682658	599162	4	
310	10/27/2016	682343	599816	682344	599812	4	
311	10/27/2016	682012	600476	682013	600485	4	
312	10/27/2016	681670	601111	681667	601113	4	
313	10/27/2016	682032	598885	682028	598881	4	
314	11/1/2016	681683	599485	681679	599478	4	
315	11/1/2016	681352	600145	681349	600146	4	
316	11/1/2016	680690	601461	680690	601466	4	
317	11/1/2016	681181	599071	681176	599070	4	
318	11/1/2016	680693	599814	680691	599811	4	
319	11/1/2016	680362	600474	680361	600470	4	
320	11/1/2016	680031	601133	680029	601135	4	
321	11/1/2016	681069	597297	681075	597298	4	
322	11/1/2016	680373	598876	680378	598880	4	
323	11/1/2016	680033	599483	680029	599477	4	

Table 4 - Phase III Sampling Locations

**Table 4**  
**Phase III Sampling Locations**

Location ID	Date Sediment Collected <sup>1</sup>	Target Northing (NAD83)	Target Easting (NAD83)	Actual Northing (NAD83)	Actual Easting (NAD83)	Subunit Number	Notes
324	11/1/2016	679702	600143	679705	600141	4	
325	11/1/2016	679398	600457	679403	600458	4	
326	11/3/2016	680615	597252	680677	597287	4	
327	11/3/2016	679672	599234	679680	599213	4	
328	11/3/2016	679043	599812	679048	599034	4	
329	11/3/2016	678773	600357	678766	600346	4	
330	11/2/2016	679505	596731	679502	596729	4	
331	11/3/2016	678383	599481	678376	599483	4	
332	11/3/2016	678064	599964	678051	599988	4	
333	11/2/2016	679048	596511	679099	596553	4	
334	11/2/2016	678369	596206	678368	596209	4	
335	11/2/2016	676963	595258	676962	595256	4	
336	11/2/2016	676435	595138	676436	595138	4	
337	11/2/2016	675773	594807	675775	594806	4	
338	11/2/2016	675048	593265	675050	593266	5	
339	11/2/2016	674084	593746	674084	593750	5	
340	11/2/2016	673421	595505	673422	595507	5	
341	11/3/2016	673090	596269	673089	596272	5	
342	11/7/2016	672475	597376	672476	597379	5	
343	11/7/2016	672418	597849	672412	597846	5	
344	11/2/2016	673893	593022	673896	593019	5	
345	11/2/2016	673291	593542	673292	593544	5	
346	11/7/2016	672637	595222	672632	595223	5	
347	11/7/2016	672334	595974	672337	595976	5	
348	11/7/2016	672016	596773	672017	596770	5	
349	11/2/2016	672805	592457	672809	592459	5	
350	11/2/2016	672584	593401	672581	593398	5	
351	11/7/2016	671829	594925	671828	594923	5	
352	11/7/2016	671804	595488	671800	595486	5	
353	11/7/2016	671216	596456	671219	596454	5	
354	11/2/2016	671843	592966	671841	592969	5	
355	11/7/2016	671022	594622	671025	594626	5	
356	11/7/2016	670734	595338	670734	595335	5	
357	11/7/2016	669935	595021	669934	595024	5	
358	11/7/2016	669414	593994	669416	593994	5	
359	11/9/2016	669460	594432	669459	594436	5	
360	11/9/2016	668619	593657	668619	593646	5	
361	11/9/2016	668335	594385	668334	594387	5	
362	11/9/2016	667828	593318	667833	593317	5	
363	11/9/2016	667535	594068	667538	594070	5	
364	11/9/2016	667101	593681	667095	593676	5	
365	11/9/2016	666246	592642	666176	592623	5	
366	11/9/2016	665454	592315	665458	592316	5	
367	12/6/2016	663711	591261	663858	591681	5	

Table 4 - Phase III Sampling Locations

**Table 4**  
**Phase III Sampling Locations**

Location ID	Date Sediment Collected <sup>1</sup>	Target Northing (NAD83)	Target Easting (NAD83)	Actual Northing (NAD83)	Actual Easting (NAD83)	Subunit Number	Notes
368	11/9/2016	663075	591330	663076	591333	5	
369	12/6/2016	659620	590903	659630	590893	5	
370	10/26/2016	686523	600760	686523	600762	6	
371	10/26/2016	686084	599913	686085	599917	6	
372	11/1/2016	685191	601245	685256	601218	6	
373	11/1/2016	685480	599545	685478	599551	6	
374	11/1/2016	684868	600815	684867	600814	6	
375	10/26/2016	684398	599931	684396	599928	6	
376	10/27/2016	684152	600492	684148	600438	6	
377	10/27/2016	683809	599535	683807	599531	6	
378	10/27/2016	683471	600093	683471	600089	6	
379	10/26/2016	683266	599184	683266	599183	6	
380	11/3/2016	679805	598319	679955	598428	6	
381	11/3/2016	679142	598038	679158	598031	6	
382	11/3/2016	678815	598275	678819	598276	6	
383	10/26/2016	678450	597690	678449	597690	6	
384	10/24/2016	678210	598243	678205	598245	6	One core collected from this location had a length of less than 6 inches (5.6 inches).
385	10/24/2016	677800	598796	677798	598799	6	One core collected from this location had a length of less than 6 inches (5.0 inches).
386	10/24/2016	677830	597327	677834	597327	6	One core collected from this location had a length of less than 6 inches (5.0 inches).
387	10/24/2016	677547	597920	677544	597925	6	Two cores collected from this location had a length of less than 6 inches (5.8 and 5.9 inches).
388	10/24/2016	677224	598583	677220	598581	6	One core collected from this location had a length of less than 6 inches (4.4 inches).
389	10/26/2016	677198	599380	677192	599384	6	
390	11/2/2016	677176	596992	677175	596988	6	Location 390 was initially sampled on October 24, 2016 and resampled on November 2, 2016 due to poor recovery obtained on October 24.
391	10/24/2016	676883	597597	676876	597598	6	One core collected from this location had a length of less than 6 inches (5.6 inches).
392	10/26/2016	676560	598260	676563	598258	6	
393	10/26/2016	676232	598909	676233	598906	6	
394	10/26/2016	675907	599515	675907	599518	6	

Table 4 - Phase III Sampling Locations

**Table 4**  
**Phase III Sampling Locations**

Location ID	Date Sediment Collected <sup>1</sup>	Target Northing (NAD83)	Target Easting (NAD83)	Actual Northing (NAD83)	Actual Easting (NAD83)	Subunit Number	Notes
395	10/24/2016	676516	596661	676521	596671	6	One core collected from this location had a length of less than 6 inches (5.6 inches).
396	10/25/2016	676373	597682	676375	597682	6	
397	10/25/2016	675897	597937	675899	597939	6	
398	10/26/2016	675574	598600	675575	598600	6	
399	10/24/2016	675857	596330	675856	596325	6	
400	10/25/2016	675557	596951	675570	596957	6	
401	10/25/2016	674910	598277	674908	598279	6	
402	10/26/2016	674625	598832	674625	598828	6	
403	10/26/2016	674870	596599	674868	596594	6	
404	10/25/2016	674570	597291	674568	597293	6	
405	10/25/2016	674247	597954	674251	597955	6	
406	10/25/2016	674525	595726	674526	595798	6	
407	10/25/2016	674230	596304	674234	596304	6	
408	10/25/2016	673907	596968	673909	596968	6	One core collected from this location had a length of less than 6 inches (5.1 inches).
409	10/25/2016	673584	597631	673584	597628	6	One core collected from this location had a length of less than 6 inches (5.7 inches).
<b>PONAR Locations</b>							
198	12/6/2016	662108	588724	NA	NA	1	Location abandoned, no recovery. Location was changed from a planned core to a grab sample.
230	12/5/2016	660021	584611	660022	584609	1	Location was changed from a planned core to a grab sample.
232	12/5/2016	658503	587289	658522	587263	1	Location was changed from a planned core to a grab sample.
240	12/5/2016	658941	585454	NA	NA	1	Location abandoned, no recovery. Location was changed from a planned core to a grab sample.
241	12/5/2016	658635	586014	658637	586005	1	Location was changed from a planned core to a grab sample.
242	12/5/2016	658527	586408	658522	586413	1	Location was changed from a planned core to a grab sample.
253	11/16/2016	675605	586563	675466	586671	2	
254	11/16/2016	674784	587385	674784	587403	2	
255	11/16/2016	674467	588459	NA	NA	2	Location abandoned, no recovery
256	11/14/2016	673407	591623	673405	591620	2	
257	11/16/2016	673354	589432	NA	NA	2	Location abandoned, no recovery
258	11/16/2016	672679	590477	672747	590731	2	

Table 4 - Phase III Sampling Locations

**Table 4**  
**Phase III Sampling Locations**

Location ID	Date Sediment Collected <sup>1</sup>	Target Northing (NAD83)	Target Easting (NAD83)	Actual Northing (NAD83)	Actual Easting (NAD83)	Subunit Number	Notes
259	11/16/2016	671860	590994	NA	NA	2	Location abandoned, no recovery
260	11/16/2016	671376	592550	671372	592563	2	
261	12/1/2016	671110	593714	671112	593724	2	
262	11/16/2016	670529	592304	670511	592300	2	
263	12/1/2016	669982	593238	669982	593238	2	
264	12/1/2016	668859	592733	668859	592713	2	
265	12/1/2016	667328	592082	667328	592082	2	
266	11/30/2016	666611	591709	666581	591709	2	
267	11/30/2016	665488	591197	665481	591220	2	
268	11/29/2016	666322	587163	666316	587215	2	
269	11/29/2016	665517	588558	665467	588490	2	
270	11/29/2016	665134	589477	665126	589475	2	
271	11/30/2016	664115	590607	NA	NA	2	Location abandoned, no recovery
272	11/30/2016	663247	590161	NA	NA	2	Location abandoned, no recovery
273	11/17/2016	661725	589312	661727	589312	2	
274	11/17/2016	661276	588352	NA	NA	2	Location abandoned, no recovery
275	11/17/2016	660969	589159	660960	589129	2	
276	11/30/2016	660690	586417	660676	586431	2	
277	11/17/2016	660322	587567	660340	587555	2	
278	11/17/2016	659848	588685	659844	588689	2	
279	11/17/2016	659299	589762	NA	NA	2	Location abandoned, no recovery
280	11/17/2016	658877	590919	NA	NA	2	Location abandoned, no recovery
281	11/30/2016	660682	582577	660682	582594	2	
282	11/30/2016	660644	583663	660650	583660	2	
283	11/30/2016	660545	584830	660545	584830	2	
284	11/30/2016	660525	580907	660245	581007	2	
285	11/30/2016	659889	579770	659898	579749	2	
286	11/30/2016	659134	578493	659146	578489	2	
287	11/30/2016	658392	577043	658505	577688	2	
288	11/30/2016	657256	576565	657259	576568	2	
291	12/7/2016	684715	599413	684676	599426	3	Location was changed from a planned core to a grab sample.
292	12/7/2016	684053	598799	684056	598834	3	Location was changed from a planned core to a grab sample.
293	12/6/2016	682465	598017	682462	598021	3	Location was changed from a planned core to a grab sample.
294	12/6/2016	679172	597355	679168	597351	3	Location was changed from a planned core to a grab sample.
295	12/6/2016	678524	597028	678520	597041	3	Location was changed from a planned core to a grab sample.
296	11/14/2016	679809	588283	679811	588286	3	
297	11/14/2016	679046	590013	679043	590011	3	
298	11/14/2016	678264	591603	678031	591685	3	
299	11/14/2016	677794	592334	NA	NA	3	Location abandoned, no recovery

Table 4 - Phase III Sampling Locations

**Table 4**  
**Phase III Sampling Locations**

Location ID	Date Sediment Collected <sup>1</sup>	Target Northing (NAD83)	Target Easting (NAD83)	Actual Northing (NAD83)	Actual Easting (NAD83)	Subunit Number	Notes
300	12/6/2016	675699	595456	675707	595453	3	Location was changed from a planned core to a grab sample.
301	11/14/2016	676281	593287	676267	593319	3	
302	11/14/2016	675380	594084	675379	594079	3	
303	12/1/2016	674935	595180	674949	595179	3	
304	11/14/2016	674968	592413	673405	591620	3	
305	12/1/2016	673866	594678	673860	594674	3	
306	12/1/2016	672570	594279	672568	594279	3	

**Notes:**

<sup>1</sup>Sample processing was completed the day after sediment collection. The sample date on sample bottles and chain of custody forms is the processing date.

NA = not applicable

NAD83 = North American Datum of 1983, New Jersey State Plane in feet

**Table 5**  
**Sampling Detail**

Sample ID	Subunit Number	Date Sediment Collected <sup>1</sup>	Date Samples Processed <sup>1</sup>	Sample Type	Notes
<b>Discrete Samples</b>					
179	1	11/9/2016	11/10/2016	Vibracore	
180	1	11/9/2016	11/10/2016	Vibracore	
181	1	11/9/2016	11/10/2016	Vibracore	
182	1	11/9/2016	11/10/2016	Vibracore	Collected MS/MSD
183	1	11/9/2016	11/10/2016	Vibracore	
184	1	11/9/2016	11/10/2016	Vibracore	
185	1	11/10/2016	11/11/2016	Vibracore	
186	1	11/10/2016	11/11/2016	Vibracore	
187	1	11/10/2016	11/11/2016	Vibracore	
188	1	12/7/2016	12/8/2016	Vibracore	Collected field duplicate NB03SEDDUP-17
189	1	11/10/2016	11/11/2016	Vibracore	
190	1	11/10/2016	11/11/2016	Vibracore	
191	1	11/10/2016	11/11/2016	Vibracore	Collected field duplicate NB03SEDDUP-13
192	1	12/7/2016	12/8/2016	Vibracore	
193	1	12/7/2016	12/8/2016	Vibracore	
194	1	11/10/2016	11/11/2016	Vibracore	Collected MS/MSD
195	1	11/10/2016	11/11/2016	Vibracore	
196	1	12/6/2016	12/7/2016	Vibracore	
197	1	12/6/2016	12/7/2016	Vibracore	
199	1	11/10/2016	11/11/2016	Vibracore	
200	1	11/10/2016	11/11/2016	Vibracore	
201	1	11/10/2016	11/11/2016	Vibracore	
202	1	12/6/2016	12/7/2016	Vibracore	
203	1	12/6/2016	12/7/2016	Vibracore	
204	1	12/7/2016	12/8/2016	Vibracore	
205	1	11/14/2016	11/15/2016	Vibracore	
206	1	11/10/2016	11/11/2016	Vibracore	
207	1	11/14/2016	11/15/2016	Vibracore	
208	1	12/5/2016	12/6/2016	Vibracore	
209	1	11/16/2016	11/17/2016	Vibracore	
210	1	12/6/2016	12/7/2016	Vibracore	
211	1	11/14/2016	11/15/2016	Vibracore	
212	1	12/5/2016	12/6/2016	Vibracore	
213	1	11/14/2016	11/15/2016	Vibracore	
214	1	12/5/2016	12/6/2016	Vibracore	
215	1	11/16/2016	11/17/2016	Vibracore	
216	1	11/16/2016	11/17/2016	Vibracore	
217	1	11/16/2016	11/17/2016	Vibracore	
218	1	12/5/2016	12/6/2016	Vibracore	
219	1	12/5/2016	12/6/2016	Vibracore	
220	1	11/16/2016	11/17/2016	Vibracore	
221	1	11/16/2016	11/17/2016	Vibracore	
222	1	12/5/2016	12/6/2016	Vibracore	
223	1	12/5/2016	12/6/2016	Vibracore	
224	1	11/16/2016	11/17/2016	Vibracore	Collected MS/MSD
225	1	11/16/2016	11/17/2016	Vibracore	Collected field duplicate NB03SEDDUP-14
226	1	11/17/2016	11/18/2016	Vibracore	
227	1	11/17/2016	11/18/2016	Vibracore	

**Table 5**  
**Sampling Detail**

Sample ID	Subunit Number	Date Sediment Collected <sup>1</sup>	Date Samples Processed <sup>1</sup>	Sample Type	Notes
228	1	12/5/2016	12/6/2016	Vibracore	Collected MS/MSD
229	1	12/5/2016	12/6/2016	Vibracore	
230	1	12/5/2016	12/6/2016	PONAR	
231	1	11/17/2016	11/18/2016	Vibracore	
232	1	12/5/2016	12/6/2016	PONAR	
233	1	11/17/2016	11/18/2016	Vibracore	
234	1	12/5/2016	12/6/2016	Vibracore	Collected field duplicate NB03SEDDUP-15
235	1	12/5/2016	12/6/2016	Vibracore	
236	1	11/30/2016	12/1/2016	Vibracore	
237	1	11/30/2016	12/1/2016	Vibracore	
238	1	11/30/2016	12/1/2016	Vibracore	Collected MS/MSD
239	1	12/5/2016	12/6/2016	Vibracore	
241	1	12/5/2016	12/6/2016	PONAR	
242	1	12/5/2016	12/6/2016	PONAR	
243	1	12/6/2016	12/7/2016	Vibracore	
244	1	12/6/2016	12/7/2016	Vibracore	
245	1	12/5/2016	12/6/2016	Vibracore	
246	1	12/6/2016	12/7/2016	Vibracore	Collected field duplicate NB03SEDDUP-16
247	1	11/30/2016	12/1/2016	Vibracore	
248	1	11/30/2016	12/1/2016	Vibracore	
249	1	11/30/2016	12/1/2016	Vibracore	
250	1	12/6/2016	12/7/2016	Vibracore	
251	1	12/6/2016	12/7/2016	Vibracore	Collected MS/MSD
252	1	12/6/2016	12/7/2016	Vibracore	
289	3	12/1/2016	12/2/2016	Vibracore	
290	3	12/1/2016	12/2/2016	Vibracore	
291	3	12/7/2016	12/8/2016	PONAR	
292	3	12/7/2016	12/8/2016	PONAR	
293	3	12/6/2016	12/7/2016	PONAR	
294	3	12/6/2016	12/7/2016	PONAR	
295	3	12/6/2016	12/7/2016	PONAR	
300	3	12/6/2016	12/7/2016	PONAR	
307	4	10/27/2016	10/28/2016	Vibracore	
308	4	10/27/2016	10/28/2016	Vibracore	Collected field duplicate NB03SEDDUP-09
309	4	10/27/2016	10/28/2016	Vibracore	
310	4	10/27/2016	10/28/2016	Vibracore	
311	4	10/27/2016	10/28/2016	Vibracore	
312	4	10/27/2016	10/28/2016	Vibracore	
313	4	10/27/2016	10/28/2016	Vibracore	
314	4	11/1/2016	11/2/2016	Vibracore	
315	4	11/1/2016	11/2/2016	Vibracore	
316	4	11/1/2016	11/2/2016	Vibracore	
317	4	11/1/2016	11/2/2016	Vibracore	Collected MS/MSD
318	4	11/1/2016	11/2/2016	Vibracore	
319	4	11/1/2016	11/2/2016	Vibracore	
320	4	11/1/2016	11/2/2016	Vibracore	
321	4	11/1/2016	11/2/2016	Vibracore	
322	4	11/1/2016	11/2/2016	Vibracore	
323	4	11/1/2016	11/2/2016	Vibracore	

**Table 5  
Sampling Detail**

Sample ID	Subunit Number	Date Sediment Collected <sup>1</sup>	Date Samples Processed <sup>1</sup>	Sample Type	Notes
324	4	11/1/2016	11/2/2016	Vibracore	
325	4	11/1/2016	11/2/2016	Vibracore	
326	4	11/3/2016	11/4/2016	Vibracore	Collected MS/MSD
327	4	11/3/2016	11/4/2016	Vibracore	Collected field duplicate NB03SEDDUP-11
328	4	11/3/2016	11/4/2016	Vibracore	
329	4	11/3/2016	11/4/2016	Vibracore	
330	4	11/2/2016	11/3/2016	Vibracore	
331	4	11/3/2016	11/4/2016	Vibracore	
332	4	11/3/2016	11/4/2016	Vibracore	
333	4	11/2/2016	11/3/2016	Vibracore	
334	4	11/2/2016	11/3/2016	Vibracore	
335	4	11/2/2016	11/3/2016	Vibracore	
336	4	11/2/2016	11/3/2016	Vibracore	
337	4	11/2/2016	11/3/2016	Vibracore	
338	5	11/2/2016	11/3/2016	Vibracore	
339	5	11/2/2016	11/3/2016	Vibracore	Collected MS/MSD
340	5	11/2/2016	11/3/2016	Vibracore	
341	5	11/3/2016	11/4/2016	Vibracore	
342	5	11/7/2016	11/8/2016	Vibracore	
343	5	11/7/2016	11/8/2016	Vibracore	
344	5	11/2/2016	11/3/2016	Vibracore	
345	5	11/2/2016	11/3/2016	Vibracore	
346	5	11/7/2016	11/8/2016	Vibracore	
347	5	11/7/2016	11/8/2016	Vibracore	
348	5	11/7/2016	11/8/2016	Vibracore	
349	5	11/2/2016	11/3/2016	Vibracore	Collected field duplicate NB03SEDDUP-10
350	5	11/2/2016	11/3/2016	Vibracore	
351	5	11/7/2016	11/8/2016	Vibracore	
352	5	11/7/2016	11/8/2016	Vibracore	
353	5	11/7/2016	11/8/2016	Vibracore	
354	5	11/2/2016	11/3/2016	Vibracore	
355	5	11/7/2016	11/8/2016	Vibracore	
356	5	11/7/2016	11/8/2016	Vibracore	
357	5	11/7/2016	11/8/2016	Vibracore	
358	5	11/7/2016	11/8/2016	Vibracore	
359	5	11/9/2016	11/10/2016	Vibracore	
360	5	11/9/2016	11/10/2016	Vibracore	
361	5	11/9/2016	11/10/2016	Vibracore	
362	5	11/9/2016	11/10/2016	Vibracore	
363	5	11/9/2016	11/10/2016	Vibracore	Collected field duplicate NB03SEDDUP-12
364	5	11/9/2016	11/10/2016	Vibracore	
365	5	11/9/2016	11/10/2016	Vibracore	
366	5	11/9/2016	11/10/2016	Vibracore	
367	5	12/6/2016	12/7/2016	Vibracore	
368	5	11/9/2016	11/10/2016	Vibracore	
369	5	12/6/2016	12/7/2016	Vibracore	
370	6	10/26/2016	10/27/2016	Vibracore	
371	6	10/26/2016	10/27/2016	Vibracore	
372	6	11/1/2016	11/2/2016	Vibracore	

**Table 5  
Sampling Detail**

Sample ID	Subunit Number	Date Sediment Collected <sup>1</sup>	Date Samples Processed <sup>1</sup>	Sample Type	Notes
373	6	11/1/2016	11/2/2016	Vibracore	
374	6	11/1/2016	11/2/2016	Vibracore	
375	6	10/26/2016	10/27/2016	Vibracore	
376	6	10/27/2016	10/28/2016	Vibracore	
377	6	10/27/2016	10/28/2016	Vibracore	Collected MS/MSD
378	6	10/27/2016	10/28/2016	Vibracore	
379	6	10/26/2016	10/27/2016	Vibracore	
380	6	11/3/2016	11/4/2016	Vibracore	
381	6	11/3/2016	11/4/2016	Vibracore	
382	6	11/3/2016	11/4/2016	Vibracore	
383	6	10/26/2016	10/27/2016	Vibracore	
384	6	10/24/2016	10/25/2016	Vibracore	
385	6	10/24/2016	10/25/2016	Vibracore	Collected field duplicate NB03SEDDUP-07
386	6	10/24/2016	10/25/2016	Vibracore	
387	6	10/24/2016	10/25/2016	Vibracore	
388	6	10/24/2016	10/25/2016	Vibracore	
389	6	10/26/2016	10/27/2016	Vibracore	
390	6	11/2/2016	11/3/2016	Vibracore	
391	6	10/24/2016	10/25/2016	Vibracore	
392	6	10/26/2016	10/27/2016	Vibracore	Collected MS/MSD
393	6	10/26/2016	10/27/2016	Vibracore	
394	6	10/26/2016	10/27/2016	Vibracore	
395	6	10/24/2016	10/25/2016	Vibracore	
396	6	10/25/2016	10/26/2016	Vibracore	
397	6	10/25/2016	10/26/2016	Vibracore	
398	6	10/26/2016	10/27/2016	Vibracore	
399	6	10/24/2016	10/25/2016	Vibracore	
400	6	10/25/2016	10/26/2016	Vibracore	
401	6	10/25/2016	10/26/2016	Vibracore	
402	6	10/26/2016	10/27/2016	Vibracore	
403	6	10/26/2016	10/27/2016	Vibracore	Collected field duplicate NB03SEDDUP-08
404	6	10/25/2016	10/26/2016	Vibracore	
405	6	10/25/2016	10/26/2016	Vibracore	
406	6	10/25/2016	10/26/2016	Vibracore	
407	6	10/25/2016	10/26/2016	Vibracore	
408	6	10/25/2016	10/26/2016	Vibracore	
409	6	10/25/2016	10/26/2016	Vibracore	
<b>Composite Samples</b>					
296	3	11/14/2016	11/15/2016	PONAR	NB03SED-CHMCOMP01
297	3	11/14/2016	11/15/2016	PONAR	
298	3	11/14/2016	11/15/2016	PONAR	
301	3	11/14/2016	11/15/2016	PONAR	
302	3	11/14/2016	11/15/2016	PONAR	

**Table 5  
Sampling Detail**

Sample ID	Subunit Number	Date Sediment Collected <sup>1</sup>	Date Samples Processed <sup>1</sup>	Sample Type	Notes
253	2	11/16/2016	11/17/2016	PONAR	NB03SED-CHMCOMP02
254	2	11/16/2016	11/17/2016	PONAR	
258	2	11/16/2016	11/17/2016	PONAR	
260	2	11/16/2016	11/17/2016	PONAR	
262	2	11/16/2016	11/17/2016	PONAR	
268	2	11/29/2016	11/29/2016	PONAR	NB03SED-CHMCOMP03
269	2	11/29/2016	11/29/2016	PONAR	
270	2	11/29/2016	11/29/2016	PONAR	
303	3	12/1/2016	12/2/2016	PONAR	NB03SED-CHMCOMP04
305	3	12/1/2016	12/2/2016	PONAR	
306	3	12/1/2016	12/2/2016	PONAR	
261	2	12/1/2016	12/2/2016	PONAR	
263	2	12/1/2016	12/2/2016	PONAR	
264	2	12/1/2016	12/2/2016	PONAR	
265	2	12/1/2016	12/2/2016	PONAR	NB03SED-CHMCOMP05
267	2	11/30/2016	12/1/2016	PONAR	
266	2	11/30/2016	12/1/2016	PONAR	NB03SED-CHMCOMP06
273	2	11/17/2016	11/18/2016	PONAR	
275	2	11/17/2016	11/18/2016	PONAR	NB03SED-CHMCOMP07
277	2	11/17/2016	11/18/2016	PONAR	
278	2	11/17/2016	11/18/2016	PONAR	NB03SED-CHMCOMP08
281	2	11/30/2016	12/1/2016	PONAR	
282	2	11/30/2016	12/1/2016	PONAR	
283	2	11/30/2016	12/1/2016	PONAR	
276	2	11/30/2016	12/1/2016	PONAR	NB03SED-CHMCOMP09
288	2	11/30/2016	12/1/2016	PONAR	
287	2	11/30/2016	12/1/2016	PONAR	
286	2	11/30/2016	12/1/2016	PONAR	
285	2	11/30/2016	12/1/2016	PONAR	
284	2	11/30/2016	12/1/2016	PONAR	NB03SED-CHMCOMP10
256	2	11/14/2016	11/15/2016	PONAR	
304	3	11/14/2016	11/15/2016	PONAR	

**Notes:**

<sup>1</sup>Sample processing was completed the day after sediment collection with the exception of composite sample NB03SED-CHMCOMP03, which was processed on the same day it was collected. The sample date on sample bottles and chain of custody forms is the processing date.

MS/MSD = matrix spike/matrix spike duplicate

**Table 7**  
**Navigation Channel Composite Samples**

Geographic Area	Subunit	Location ID	Sample Name for Chemistry Analysis
Port Newark Channel	3	296	NB03SED-CHMCOMP01
		297	
		298	
		299	
		301	
		302	
Elizabeth Channel	2	253	NB03SED-CHMCOMP02
		254	
		255	
		257	
		258	
		259	
		260	
		262	
South Elizabeth Channel	2	268	NB03SED-CHMCOMP03
		269	
		270	
Main Channel #1 (Elizabeth Channel to Shooters Island)	2/3	261	NB03SED-CHMCOMP04
		263	
		264	
		265	
		303	
		306	
Main Channel #2 (Elizabeth Channel to Shooters Island)	2	266	NB03SED-CHMCOMP05
		267	
		271	
		272	
Main Channel #3 (Elizabeth Channel to Shooters Island)	2	273	NB03SED-CHMCOMP06
		274	
		275	
Main Channel #4 (Kill van Kull to Arthur Kill)	2	277	NB03SED-CHMCOMP07
		278	
		279	
		280	
Main Channel #5 (Kill van Kull to Arthur Kill)	2	281	NB03SED-CHMCOMP08
		282	
		283	
		276	
Main Channel #6 (Kill van Kull to Arthur Kill)	2	284	NB03SED-CHMCOMP09
		285	
		286	
		287	
		288	
Port Newark Pierhead Channel	2/3	256	NB03SED-CHMCOMP10
		304	

**Note:**

Shading indicates that the sampling location was abandoned due to lack of recovery; therefore, sediment from the shaded location was not included in the composite sample.

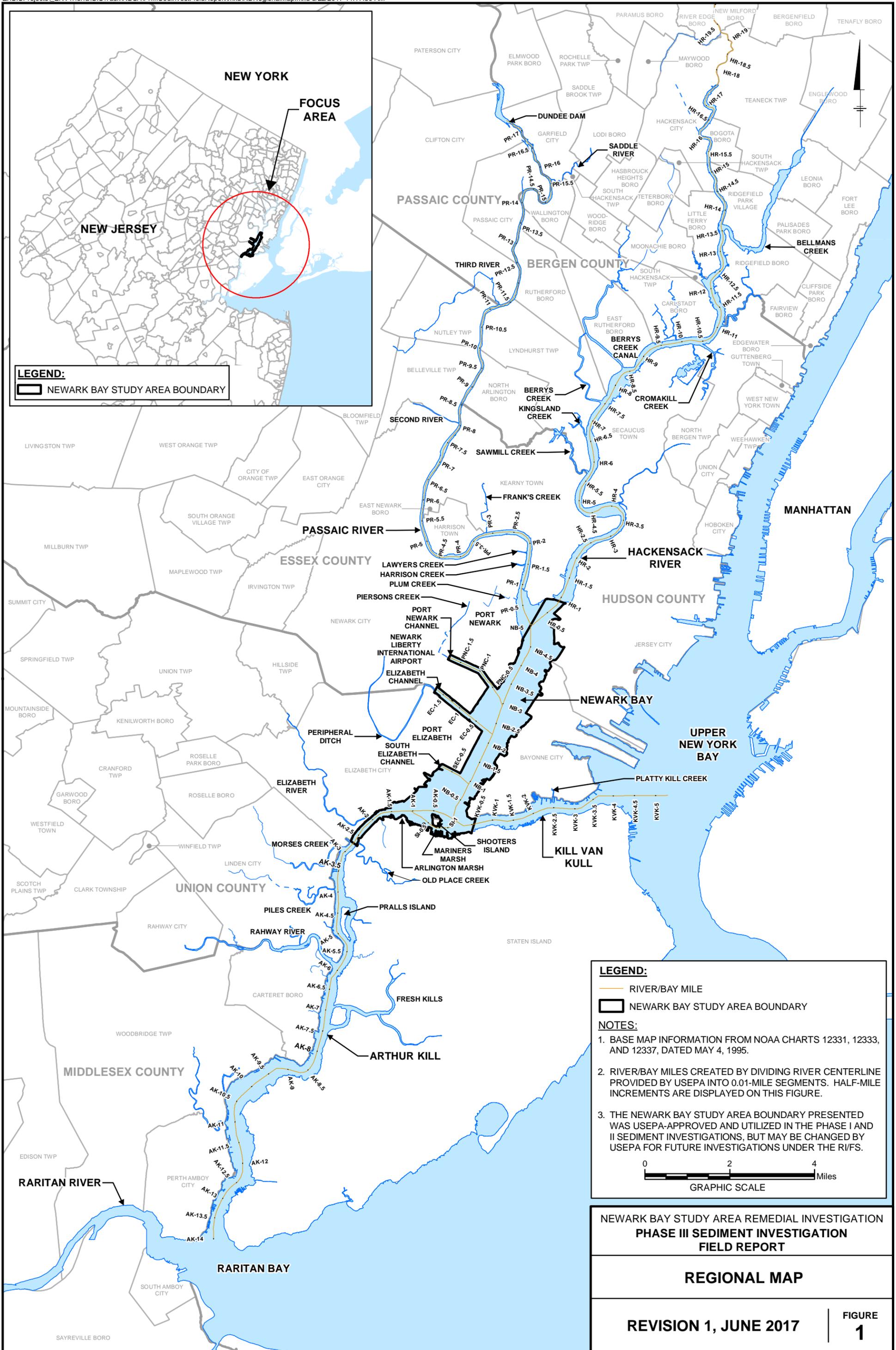
**Table 8**  
**USEPA Split Samples**

Location ID	Subunit Number	Sample Type	Date Samples Processed	Tierra Sample ID	USEPA Split Sample ID
<b>Discrete Samples</b>					
184	1	Vibracore	11/10/2016	NB03SED-CHM184	NB03SED-CHM184-LB
195	1	Vibracore	11/11/2016	NB03SED-CHM195	NB03SED-CHM195-LB
209	1	Vibracore	11/17/2016	NB03SED-CHM209	NB03SED-CHM209-LB
224	1	Vibracore	11/17/2016	NB03SED-CHM224	NB03SED-CHM224-LB
233	1	Vibracore	11/18/2016	NB03SED-CHM233	NB03SED-CHM233-LB
238	1	Vibracore	12/1/2016	NB03SED-CHM238	NB03SED-CHM238-LB
290	3	Vibracore	12/2/2016	NB03SED-CHM290	NB03SED-CHM290-LB
293	3	PONAR	12/7/2016	NB03SED-CHM293	NB03SED-CHM293-LB
295	3	PONAR	12/7/2016	NB03SED-CHM295	NB03SED-CHM295-LB
300	3	PONAR	12/7/2016	NB03SED-CHM300	NB03SED-CHM300-LB
315	4	Vibracore	11/2/2016	NB03SED-CHM315	NB03SED-CHM315-LB
321	4	Vibracore	11/2/2016	NB03SED-CHM321	NB03SED-CHM321-LB
325	4	Vibracore	11/2/2016	NB03SED-CHM325	NB03SED-CHM325-LB
326	4	Vibracore	11/4/2016	NB03SED-CHM326	NB03SED-CHM326-LB
329	4	Vibracore	11/4/2016	NB03SED-CHM329	NB03SED-CHM329-LB
339	5	Vibracore	11/3/2016	NB03SED-CHM339	NB03SED-CHM339-LB
352	5	Vibracore	11/8/2016	NB03SED-CHM352	NB03SED-CHM352-LB
358	5	Vibracore	11/8/2016	NB03SED-CHM358	NB03SED-CHM358-LB
364	5	Vibracore	11/10/2016	NB03SED-CHM364	NB03SED-CHM364-LB
368	5	Vibracore	11/10/2016	NB03SED-CHM368	NB03SED-CHM368-LB
371	6	Vibracore	10/27/2016	NB03SED-CHM371	NB03SED-CHM371-LB
377	6	Vibracore	10/28/2016	NB03SED-CHM377	NB03SED-CHM377-LB
382	6	Vibracore	11/4/2016	NB03SED-CHM382	NB03SED-CHM382-LB
393	6	Vibracore	10/27/2016	NB03SED-CHM393	NB03SED-CHM393-LB
394	6	Vibracore	10/27/2016	NB03SED-CHM394	NB03SED-CHM394-LB
407	6	Vibracore	10/26/2016	NB03SED-CHM407	NB03SED-CHM407-LB
<b>Composite Samples</b>					
NB03SED-CHMCOMP01	3	PONAR	11/15/2016	NB03SED-CHMCOMP01	NB03SED-CHMCOMP01-LB
NB03SED-CHMCOMP05	2	PONAR	12/1/2016	NB03SED-CHMCOMP05	NB03SED-CHMCOMP05-LB
NB03SED-CHMCOMP07	2	PONAR	11/18/2016	NB03SED-CHMCOMP07	NB03SED-CHMCOMP07-LB
NB03SED-CHMCOMP10	2	PONAR	11/15/2016	NB03SED-CHMCOMP10	NB03SED-CHMCOMP10-LB

**Notes:**

USEPA = United States Environmental Protection Agency

## Figures

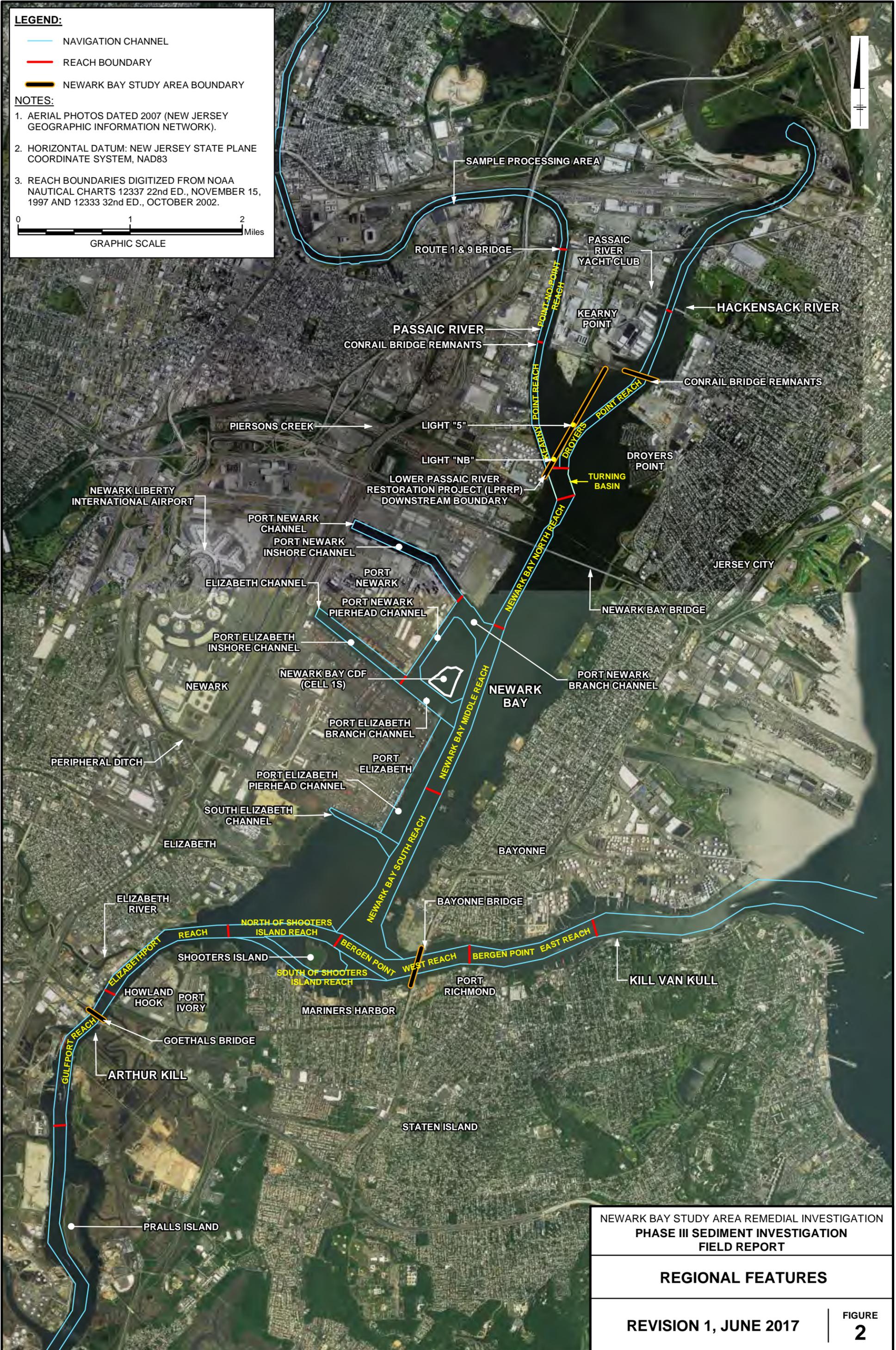


**LEGEND:**

- NAVIGATION CHANNEL
- REACH BOUNDARY
- NEWARK BAY STUDY AREA BOUNDARY

**NOTES:**

1. AERIAL PHOTOS DATED 2007 (NEW JERSEY GEOGRAPHIC INFORMATION NETWORK).
2. HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD83
3. REACH BOUNDARIES DIGITIZED FROM NOAA NAUTICAL CHARTS 12337 22nd ED., NOVEMBER 15, 1997 AND 12333 32nd ED., OCTOBER 2002.

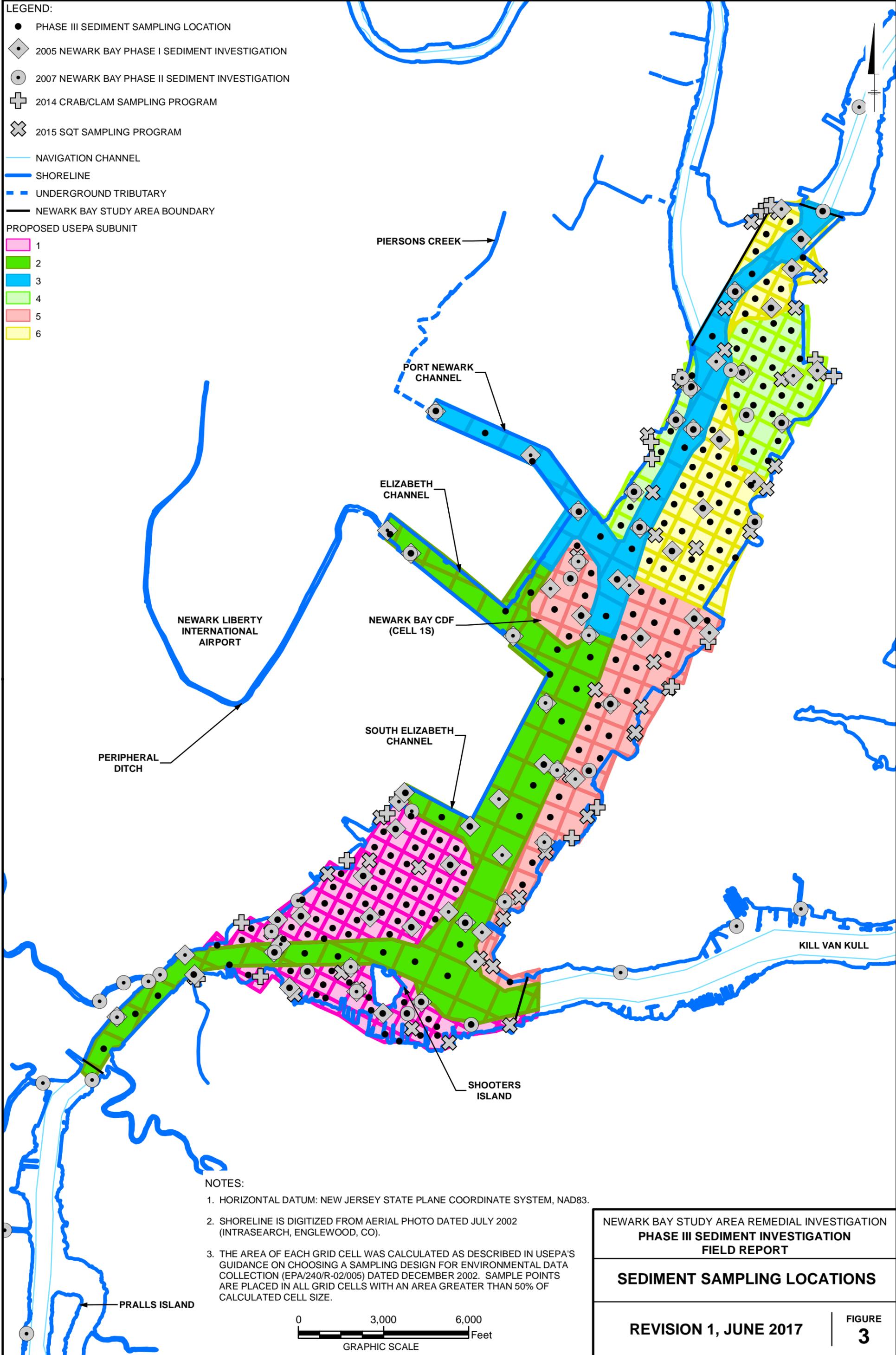


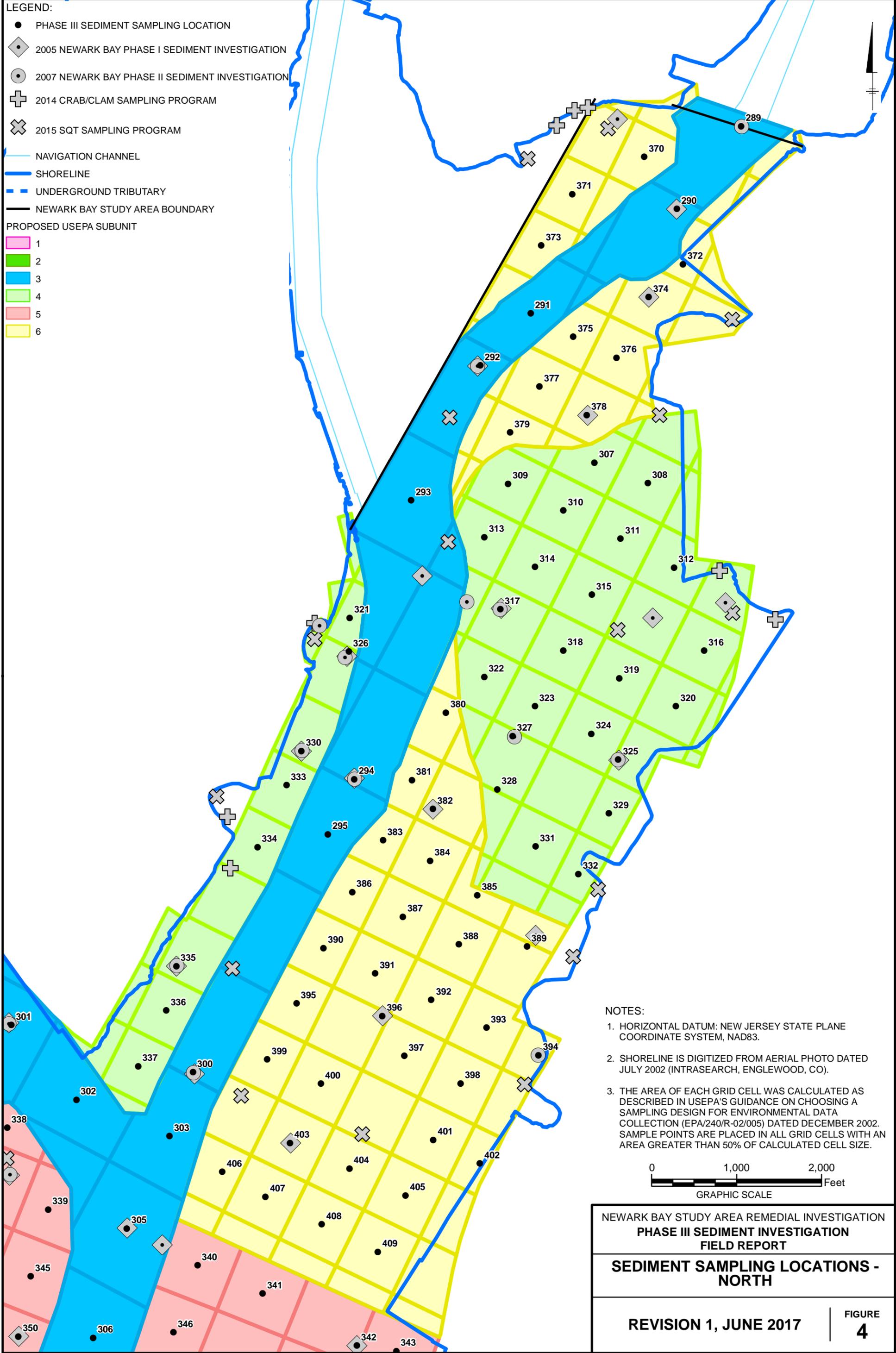
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION  
 PHASE III SEDIMENT INVESTIGATION  
 FIELD REPORT

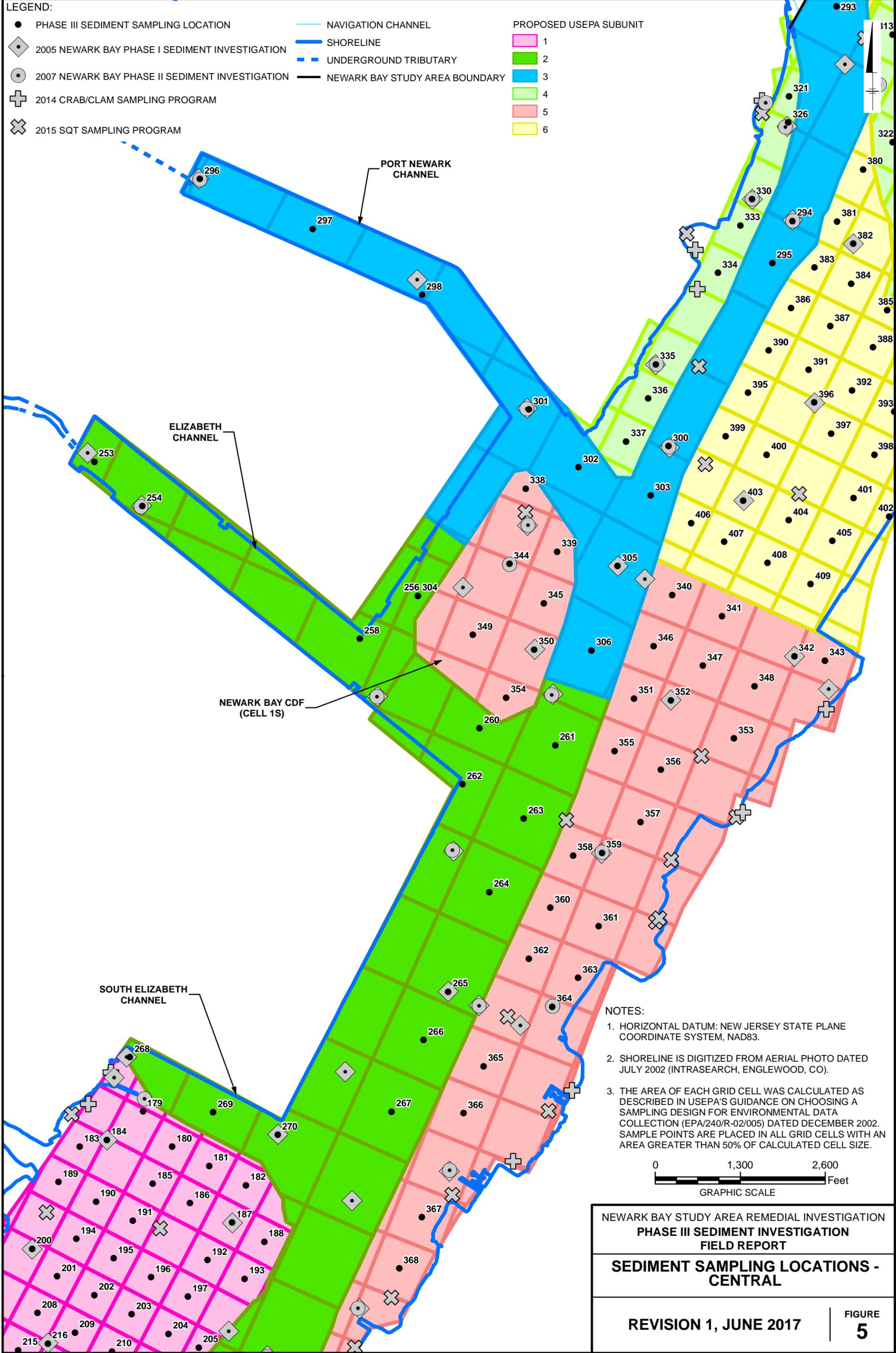
**REGIONAL FEATURES**

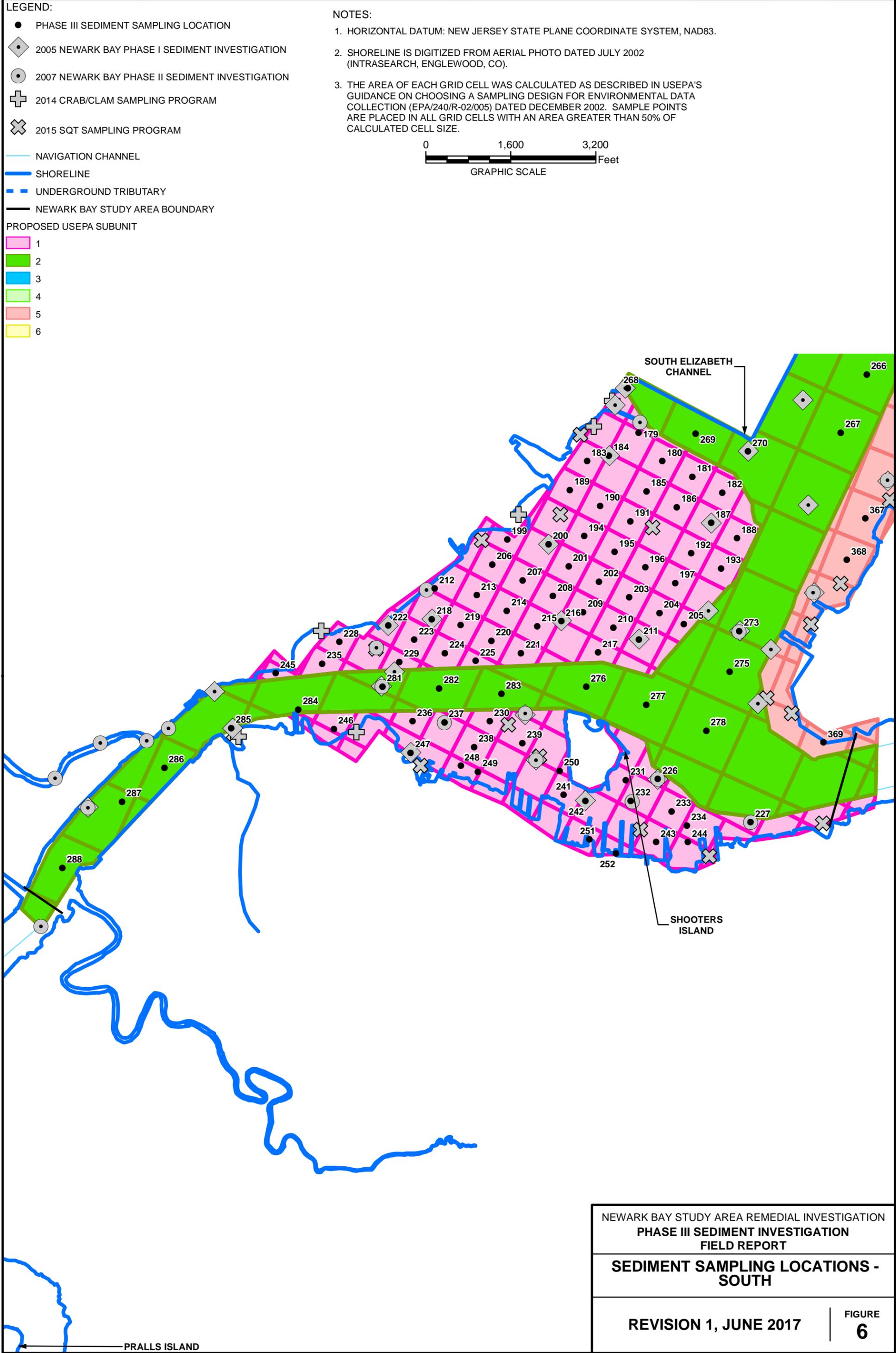
REVISION 1, JUNE 2017

FIGURE  
**2**









## **Appendix A**

**Protocol Modification Form No. 1: TEPH LCS Recovery**

Project Name and Number: Newark Bay

Material to be Sampled: Field Blanks and Sediment

Measurement Parameter: TEPH – extractables/alkanes (Analytical Method/SOP: L-16; Eurofins SOP 1-P-QM-WI-9013038)

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):  
Worksheets #12-1 and #12-2 list measurement performance criteria for water (field blanks) and sediment matrices, respectively. The QC Sample “Laboratory Control Sample” (LCS) states a % recovery for all target analytes of 70-130 for field blanks and 70-120 for sediment. The same recoveries are listed in Worksheets #28-2a and 28-2b, respectively.

Reason for Change in Field Procedure or Analysis Variation:  
Eurofins Lancaster Laboratories has alternate acceptance criteria in their SOP. Imposing the stricter LCS % recoveries resulted in re-extraction and re-analysis during the SQT program that led to difficulty meeting turn-around time requirements.

Variation from Field or Analytical Procedure:  
The measurement performance criteria for LCS % recoveries will be revised to 60-120 for field blanks and sediment.

Special Equipment, Materials or Personnel Required:  
No additional special equipment, materials or personnel are required as a result of this change.

Initiator’s Name: Brian Mikucki, Tierra Solutions Date: 10/5/16

Project Manager: Clifford Firstenberg, Tierra Solutions Date: 10/5/16

QA Manager: Angela Gatchie, Field & Technical Services Date: 10/5/16

USEPA Authority: Eugenia Naranjo Date: 10/13/16

**Protocol Modification Form No. 2: Pesticides Second Source Standard**

Project Name and Number: Newark Bay

Material to be Sampled: Sediment and Field Blanks

Measurement Parameter: Pesticides (Analytical Method/SOP: L-11; USEPA 1699)

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):  
Worksheets #28-2a and #28-2b list measurement performance criteria for water (field blanks) and sediment, respectively. The QC Sample "Second Source Standard" states a frequency of "Prior to every 12-hour period following the daily calibration verification."

Reason for Change in Field Procedure or Analysis Variation:  
Vista Analytical performs confirmation of a second source standard with every initial calibration. The second source standard is not reviewed as part of the data validation SOP, therefore changing the frequency will not affect the data validation of Pesticides.

Variation from Field or Analytical Procedure:  
The frequency of the Second Source Standard QC Sample will be revised to "With every initial calibration."

Special Equipment, Materials or Personnel Required:  
No additional special equipment, materials or personnel are required as a result of this change.

Initiator's Name: Brian Mikucki, Tierra Solutions Date: 10/5/16

Project Manager: Clifford Firstenberg, Tierra Solutions Date: 10/5/16

QA Manager: Angela Gatchie, Field & Technical Services Date: 10/5/16

USEPA Authority: Eugenia Naranjo Date: 10/13/16

**NOTE: THE SOPS IN THIS PMF HAVE  
BEEN SUPERSEDED BY PMF #6**

Title: NBSA Phase III Sediment Investigation  
Quality Assurance Project Plan Amendment  
Revision Number: 2. Revision Date: September 2016  
Protocol Modification Form

### Protocol Modification Form No. 3: Sediment Coring and Processing

Project Name and Number: Newark Bay

Material to be Sampled: Sediment

Measurement Parameter: Sediment Coring and Processing – Field Standard Operating  
Procedures (SOP)

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):  
Sediment coring and processing were to be performed using SOP No. 10 – Sediment Sample  
Collection Using a Box Core.

Reason for Change in Field Procedure or Analysis Variation:  
The box corer failed to penetrate properly (i.e., perpendicular to the sediment bed) and sufficiently  
(minimum 4.5 inches) after multiple attempts.

Variation from Field or Analytical Procedure:  
Sediment coring will be performed using the attached SOP No. 11 – Sediment Collection Using  
Vibracoring Device. Core processing will be performed using the attached SOP No. 12 – Core  
Processing. Both SOPs were revised from the 2007 Newark Bay Phase II Remedial Investigation  
Work Plan.

Special Equipment, Materials or Personnel Required:  
A vibracore device and 4-inch Lexan core tubes (instead of 5-inch required for the box core method)  
will be required to perform the sediment coring.

Initiator's Name: Clifford Firstenberg, Tierra Solutions Date: 10/17/16

Project Manager: Clifford Firstenberg, Tierra Solutions Date: 10/17/16

QA Manager: Angela Gatchie, Field & Technical Services Date: 10/18/16

USEPA Authority: Eugenia Naranjo Date: 11/14/16

## Protocol Modification Form No. 4: Pesticides Sample Shipping

Project Name and Number: Newark Bay

Material to be Sampled: Sediment and Field Blanks

Measurement Parameter: Pesticides

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):

SOP No. 5: Containers, Preservation, Handling, and Tracking of Samples for Analysis, Section 2.4.1 states "11. Transport the shipping container directly to the laboratory, the laboratory courier, or to the overnight carrier for overnight delivery. Chemical samples will be shipped by close of the same day the sample was collected."

Reason for Change in Field Procedure or Analysis Variation:

In previous sampling programs there have been issues with samples shipped for Saturday delivery not arriving at the laboratory on Saturday and subsequently arriving on a later day out of temperature.

Variation from Field or Analytical Procedure:

Sediment and field blank samples collected for Pesticides analysis on Friday of each week will be stored at the Lister Avenue warehouse, under secure chain-of-custody in the walk-in cooler, and will be shipped to Vista Analytical on the following Monday to avoid shipment of samples to the laboratory for Saturday delivery. The samples will arrive within the required time to extract. Vista has been notified of the change and finds it acceptable.

Special Equipment, Materials or Personnel Required:

No additional special equipment, materials or personnel are required as a result of this change.

Initiator's Name: Clifford Firstenberg, Tierra Solutions Date: 10/26/16

Project Manager: Clifford Firstenberg, Tierra Solutions Date: 10/26/16

QA Manager: Angela Gatchie, Field & Technical Services Date: 10/27/16

USEPA Authority: \_\_\_\_\_ Date: \_\_\_\_\_

**Protocol Modification Form No. 5: Location Adjustments**

Project Name and Number: Newark Bay

Material to be Sampled: Sediment

Measurement Parameter: Sediment sampling location adjustments

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):  
Table 3 lists the coordinates and Figures 2, 4, 6, and 8 of the Phase III QAPP Amendment (Tierra 2016) show the proposed sample locations

Reason for Change in Field Procedure or Analysis Variation:  
PSE&G and Spectra/Texas Eastern requested a 50-foot buffer from their utility lines. Locations 269, and 332 are 30 ft and 5 ft, respectively, from a PSE&G utility line. Location 367 was 50 ft from the Spectra/Texas Eastern utility line. Location 372 was determined to be on land. Other locations were adjusted in the field due to obstructions or poor recovery, or abandoned.

Variation from Field or Analytical Procedure:  
The attached table documents locations that were adjusted, and the reason for the adjustment, as well as locations that were abandoned.

Special Equipment, Materials or Personnel Required:  
No additional special equipment, materials or personnel are required as a result of this change.

Initiator's Name: Clifford Firstenberg, Tierra Solutions Date: 12/13/16

Project Manager: Clifford Firstenberg, Tierra Solutions Date: 12/13/16

QA Manager: Angela Gatchie, Field & Technical Services Date: \_\_\_\_\_

USEPA Authority: \_\_\_\_\_ Date: \_\_\_\_\_

**Protocol Modification Form No. 5: Location Adjustments (continued)**

Location ID	Date Sampled	Sample Type	Field Change	Reason for Change	Planned Location		Actual Location	
					Northing	Easting	Northing	Easting
198	12/6/2016	Grab	location abandoned	no recovery	662108	588724	NA	NA
240	12/5/2016	Grab	location abandoned	no recovery	658941	585454	NA	NA
255	11/16/2016	Grab	location abandoned	no recovery	674467	588459	NA	NA
257	11/16/2016	Grab	location abandoned	no recovery	673354	589432	NA	NA
259	11/16/2016	Grab	location abandoned	no recovery	671860	590994	NA	NA
271	11/30/2016	Grab	location abandoned	no recovery	664115	590607	NA	NA
272	11/30/2016	Grab	location abandoned	no recovery	663247	590161	NA	NA
274	11/17/2016	Grab	location abandoned	no recovery	661276	588352	NA	NA
279	11/17/2016	Grab	location abandoned	no recovery	659299	589762	NA	NA
280	11/17/2016	Grab	location abandoned	no recovery	658877	590919	NA	NA
299	11/14/2016	Grab	location abandoned	no recovery	677794	592334	NA	NA
231	11/17/2016	Vibracore	location moved	pilings prohibiting access to target location	658850	586986	658916	587174
234	12/5/2016	Vibracore	location moved	barge over target location	658025	588604	658053	588323
239	12/5/2016	Vibracore	location moved	barge over target location	659238	584884	659616	585227
243	12/6/2016	Vibracore	location moved	barge over target location	657759	587736	657745	587743
244	12/6/2016	Vibracore	location moved	pilings prohibiting access to target location	657496	588302	657743	588338
248	11/30/2016	Vibracore	location moved	barge over target location	659060	584067	659185	584068
249	11/30/2016	Vibracore	location moved	barge over target location	658777	584637	659071	584389
250	12/6/2016	Vibracore	location moved	barge over target location	658468	585219	659086	585926
251	12/6/2016	Vibracore	location moved	barge over target location	657837	586325	657795	586490
252	12/6/2016	Vibracore	location moved	barge over target location	657644	586886	657527	586991
253	11/16/2016	Grab	location moved	barge over target location	675605	586563	675466	586671
254	11/16/2016	Grab	location moved	unacceptable recovery at target location	674784	587385	674784	587403
258	11/16/2016	Grab	location moved	unacceptable recovery at target location	672679	590477	672747	590731
269	11/29/2016	Grab	location moved	PSEG utility line near target location	665483	588524	665467	588490
284	11/30/2016	Grab	location moved	utility line near target location	660525	580907	660245	581007

Location ID	Date Sampled	Sample Type	Field Change	Reason for Change	Planned Location		Actual Location	
					Northing	Easting	Northing	Easting
287	11/30/2016	Grab	location moved	restricted shoreline	658392	577043	658505	577688
298	11/14/2016	Grab	location moved	unacceptable recovery at target location	678264	591603	678031	591685
301	11/14/2016	Grab	location moved	unacceptable recovery at target location	676281	593287	676267	593319
326	11/3/2016	Vibracore	location moved	utility line near target location	680615	597252	680677	597287
327	11/3/2016	Vibracore	location moved	utility line near target location	679672	599234	679680	599213
328	11/3/2016	Vibracore	location moved	utility line near target location	679043	599812	679048	599834
329	11/3/2016	Vibracore	location moved	utility line near target location	678773	600357	678766	600346
332	11/3/2016	Vibracore	location moved	utility line near target location	678064	599964	678051	599988
333	11/2/2016	Vibracore	location moved	bridge pier at target location	679048	596511	679099	596553
365	11/9/2016	Vibracore	location moved	barge over target location	666246	592642	666176	592623
367	12/6/2016	Vibracore	location moved	Spectra/Texas Eastern utility line near target location	663856	591679	663858	591681
372	11/1/2016	Vibracore	location moved	target fell on land	685191	601245	685256	601218
380	11/3/2016	Vibracore	location moved	utility line near target location	679805	598319	679955	598428

## Protocol Modification Form No. 6: Cease Recovery Adjustment

Project Name and Number: Newark Bay

Material to be Sampled: Sediment

Measurement Parameter: Sediment Coring and Processing – Field Standard Operating Procedures (SOPs) – Penetration and Recovery

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):

SOP No. 11 – Sediment Collection Using Vibracoring Device, Sections 4.2.3 and 4.2.4, Core Collection Form, and Individual Core Collection Form; SOP No. 12 – Core Processing, Section 4.2.2, Steps 6 and 7, Section 4.2.4.2, and Sample Processing Form

Reason for Change in Field Procedure or Analysis Variation:

After discussion with USEPA via teleconference on October 26, 2016, it was decided that adjusting the core segmentation scheme based on the percent recovery and the length of the sediment in the core tube will not be done during the Phase III SI. To prevent/minimize the loss of suspended sediment, the core dewatering was modified to allow a drill bit to be used to remove excess water from the core tube. Section 4.2.4.2 (Field Blanks) in SOP No. 12 was modified to be consistent with the frequency in the approved QAPP.

Variation from Field or Analytical Procedure:

Step 21 in Section 4.2.3 of SOP No. 11 was modified to use a drill bit to remove excess water from the core tube.

Steps 6 & 7 in Section 4.2.2 of SOP No. 12 – Core Processing will not be performed. Additionally, the “Recovery (ft) During Core Processing” and “Recovery (%) During Core Processing” fields will not be completed on the Sample Processing Form. Instead, “NA” will be entered for both fields for all cores. One core will be collected at each location that retains at least 9 inches of sediment; additional cores will be required for splits and MS/MSD. The collected cores will need to meet the following two criteria: (1) maximum penetration will be the length of the core liner minus 3 inches; and (2) minimum recovery of 9 inches. The revised SOPs are attached.

Special Equipment, Materials or Personnel Required:

No special equipment, materials or personnel required.

Initiator’s Name: Clifford Firstenberg, Tierra Solutions Date: 10/26/16

Project Manager: Clifford Firstenberg, Tierra Solutions Date: 10/26/16

QA Manager: Angela Gatchie, Field & Technical Services Date: 10/31/16

USEPA Authority: \_\_\_\_\_ Date: \_\_\_\_\_

**STANDARD OPERATING PROCEDURE NO. 11**

**SEDIMENT COLLECTION  
USING VIBRACORING DEVICE**

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### 3.0 PURPOSE AND SCOPE

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The purpose of this document is to define the standard operating procedure (SOP) for collecting cores using a vibracoring device as part of the Newark Bay Study Area Phase III Quality Assurance Project Plan Amendment (Phase III QAPP).

This SOP describes the equipment, field procedures, materials, and documentation procedures necessary to collect cores. Specific information regarding coring can be found in the Phase III QAPP.

This SOP may change, depending upon field conditions, equipment limitations, or limitations imposed by the procedure. Substantive modification to this SOP shall be approved in advance by the Facility Coordinator (FC) and the United States Environmental Protection Agency (USEPA) Remedial Project Manager. The ultimate procedure employed will be documented in the Newark Bay RI Report.

Other SOPs will be utilized in conjunction with this SOP, including:

- SOP No. 1 – Locating Sample Points Using GPS;
- SOP No. 2 – Positioning;
- SOP No. 3 – Decontamination;
- SOP No. 4 – Management and Disposal of Residuals;
- SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis;
- SOP No. 8 – Documenting Field Activities; and
- SOP No. 12 – Core Processing.

## 4.0 PROCEDURES

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Cores may be collected using a vibracoring device. Following collection, cores will be transported to the sample processing area. Core processing procedures are described in SOP No. 12 – Core Processing.

### 4.1 EQUIPMENT LIST

The following equipment list contains materials which may be needed in carrying out the procedures outlined in this SOP. Not all equipment listed below may be necessary for a specific activity. Additional equipment may be required, pending field conditions.

- personal protective equipment (PPE) and other safety equipment, as required by Phase II RIWP HASCP [Rev. 1] (Tierra, 2007);
- navigation charts and Phase III Sediment Sampling Program Proposed Locations figure;
- sampling vessel adequate for Newark Bay conditions;
- project Quality Assurance Project Plan;
- marine VHF radio;
- positioning equipment;
- vibracore device;
- deployment equipment (e.g., A-frames, winches, winch cable marked in 1 foot increments, generator);
- sounding pole;
- decontaminated Lexan core tubes;
- decontaminated stainless steel core catcher;
- core caps;
- hacksaw;
- decontaminated hacksaw blades;
- decontaminated drill bits;
- drill;
- Daily Activity Log, Core Collection Form, and Individual Core Collection Form;
- core storage racks or cooler to hold cores vertical and cold during temporary storage on-board coring vessel;
- assorted nautical equipment (e.g., anchors, lines, personal flotation devices [PFDs]);
- logbooks and associated field forms;
- permanent marker or grease pencil;
- fathometer with a resolution of 0.1 foot;
- tape measure;
- submersible pump and hose;
- duct tape;
- camera; and
- decontamination equipment/supplies.

### 4.2 SAMPLING PROCEDURES

This section gives the step-by-step procedures for collecting cores using a vibracore. Observations made during sediment core collection should be recorded in the Daily Activity Log, Core Collection Form, and Individual Core Collection Form, and a logbook (SOP No. 8 – Documenting Field Activities).

#### 4.2.1 DECONTAMINATION OF EQUIPMENT

Decontamination of the Lexan core tubes and stainless steel core catchers will be performed prior to vessel departure in accordance with procedures outlined in SOP No. 13 – Decontamination. The decontamination activities will occur on shore and will be conducted with enough time before vessel departure to allow for the decontamination activities to be completed (including drying of decontaminated equipment). Additional decontamination equipment and expendable supplies will be carried aboard the coring vessel in the event additional decontamination activities are needed.

#### 4.2.2 LOCATING CORING POSITION

1. The coring schedule for the day will be established prior to vessel departure, and sufficient equipment to complete the work will be on board the sampling vessel. The coring crew will be informed prior to departure of the coring locations and the number of cores required at each location. ~~Two cores~~One core (nominal 4-inch diameter) will be collected at each location. ~~Based upon the core diameter, sample interval, moisture content, and 75 percent core recovery, two cores are sufficient to meet the mass requirements of the analytical program. If the core recovery is greater than 90 percent, one core rather than two cores may be collected.~~ Additional cores may be needed at identified locations to collect sufficient sediment mass for field duplicates and MS/MSD samples.
2. The vibracoring vessel will move to a coring location in accordance with SOP No. ~~2-1~~ – Locating Sample Points Using GPS, and SOP No. 2 – Positioning.

#### 4.2.3 COLLECTION OF CORES

1. Complete Daily Activity Log and Core Collection Form.
2. Don PPE as required by Phase II RIWP HASCP [Rev. 1] (Tierra, 2007).
3. Activate the submersible pump in preparation for cleaning the vibracore and coring tube, upon retrieval.
4. At each coring location, one attempt will be made at coring without the use of a core catcher.
  - ~~a. If the sufficient~~ sediment is retained in the core tube, ~~(i.e., at least 9 inches)~~, then proceed with collecting a second or third core at that location, ~~if without a core catcher, as~~ needed based on the requirements described in Step 1 of Section 4.2.2, ~~without a core catcher.~~
  - b. If the sediment cannot be retained in the core tube, the vibracore operator will evaluate whether to try a second attempt without a core catcher, based on vibracoring conditions.
    - i. If, based on the vibracore operator's professional opinion, a second attempt without a core catcher may be successful, collect a second core without a core catcher.

4-ii. If, based on the vibracore operator's professional opinion, a second attempt without a core catcher will not be successful, attach a core catcher to the bottom of the core tube and collect a core.

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5. Slowly winch the vibracore into its deployment orientation.
6. Obtain water depth (to nearest 0.1 foot) from the sounding pole or fathometer and record on Individual Core Collection Form.
7. Slowly lower the vibracore into the water using the winch or other deployment equipment.
8. Slowly lower the vibracore through the water column to the sediment surface using the water depth reading.
9. Record the "zero" mark on the winch cable.
10. Lower the vibracore into the sediment until initial refusal. If the target depth (9 inches) has been reached, proceed to Step 11; if not, start the vibracore motor. Record the start time on the Individual Core Collection Form. Slowly penetrate the sediment to the target penetration depth of ~~4 feet~~9 inches, or refusal.
11. Lower vibracore approximately 1 foot more to obtain a "plug" at the bottom of the core (i.e., to minimize prevent loss of sediment from core). Maximum penetration will be the length of the core liner (2 feet [24 inches]) minus a safety factor of 3 inches, which equals a total maximum penetration of 21 inches (1.75 feet). Record the end time on the Individual Core Collection Form.
12. On completion of the required penetration, or upon vibracore refusal, turn the motor off. Record the vibracore penetration depth on the Individual Core Collection Form.
13. Record the final core location coordinates on the Core Collection and Individual Core Collection Forms.
14. Slowly raise the vibracore, while maintaining the core in a vertical position as field conditions allow.
15. Bring vibracore to sampling vessel deck while maintaining the core in a vertical position. Remove core catcher (if necessary), replace with cap, and secure cap with duct tape.
16. Clean the vibracore barrel and coring assembly by hosing down the equipment with Newark Bay water as described in SOP No. ~~4~~3 – Decontamination.
17. Remove the core tube from the vibracore, keeping the core tube in an upright position, as field conditions allow.
18. Return the vibracore device to its onboard, deck storage location.
19. Clean the core tube by hosing it down with Newark Bay water. Care should be taken not to direct water into the open end of the core tube.
20. Evaluate whether core penetration and recovery are acceptable using the procedures outlined in Sections 4.2.4 and 4.2.5, respectively; Section 4.2.4. If penetration is acceptable but recovery is not, re-attempt core at the location consistent with Section 4.2.4. [Note: When clay is

encountered prior to achieving the target depth, procedures used to determine acceptable core penetration will no longer be applicable. For example, if a clay plug is encountered during the first attempt, no additional attempts shall be made. In cases where coring personnel believe that clay was encountered prior to achieving the target depth, but a clay plug was not recovered in the core, up to 3 attempts may be made at that location to obtain a clay plug.]

21. Keeping the core tube upright, as field conditions allow, use a hacksaw with a decontaminated blade or drill with a decontaminated drill bit to make a cut/hole in the core tube just above approximately half way between the sediment-water interface and the water surface to allow excess water to seep from the core tube. Continue to make holes in the core tube, lowering approximately half the distance each time until reaching the sediment/water interface. (The overriding objective is to prevent/minimize the loss of suspended sediment.) When the overlying water has been removed from above the sediment/water interface, cut off excess top of the core tube using a hacksaw with a decontaminated blade.
22. Cap the top of the tube, secure the top and bottom caps with duct tape, and draw an arrow toward the top cap. Draw an arrow on the coring tube with permanent marker and label "top" to indicate the top of the core. Label the core with the location ID, date, and time, and record this information on the Individual Core Collection Form.
23. Measure the recovered length of the sediment in the core tube (to the nearest 0.1 foot to the extent possible) and record it on the Individual Core Collection Form. The distance between the top of the sediment in the coring tube and the bottom of the coring tube corresponds to the recovered length. Apparent gaps should be noted on the Individual Core Collection Form and the length and location(s) of the gap(s) should be noted. The total gap length will be subtracted from the total recovery length.
24. Store the core vertically in a core storage rack or cooler (capable of keeping cores cold) while on the vessel until it can be transported to the sample processing area.

#### 4.2.4 PROCEDURES FOR DETERMINING ACCEPTABLE CORE PENETRATION AND RECOVERY

1. ~~Calculate penetration percentage using the following equation:~~

$$\text{Penetration (\%)} = \frac{\text{actual penetration (feet)}}{\text{target penetration (feet)}} \times 100$$

~~Actual penetration is the depth advanced into the sediment not including the depth advanced to form a plug.~~

1. Penetration must be greater than 9 inches and less than the length of the core liner (2 feet [24 inches]) minus a safety factor of 3 inches, which equals a total maximum penetration of 21 inches (1.75 feet) (i.e., the core liner must not "over-penetrate" the sediment).
2. Record length of core liner and penetration percentage on the Individual Core Collection Form.
3. Measure length of recovered sediment and record on Individual Core Collection Form. Minimum recovery is 9 inches (to accommodate 6-inch segment for sample processing).

~~If penetration is  $\geq 75\%$ , then penetration is acceptable. Proceed to Section 4.2.5, Procedures, retain the core for Determining Acceptable Core Recovery.~~

~~3.4. processing. If penetration is  $< 75\%$ , then unacceptable. (a) retain core and (b) record reason on the Individual Core Collection Form if due to refusal. Record additional penetration notes at the Notes section of the Individual Core Collection Form. Move to a new coring position in accordance with SOP No. 1 – Locating Sample Points Using GPS and SOP No. 2 – Positioning. Upon three unsuccessful attempts to obtain  $> 75\%$  acceptable penetration, contact Lead Consultant Project Manager to determine if additional cores should be attempted. Proceed to Section 4.2.5, Procedures for Determining Acceptable Core Recovery.~~

#### ~~4.2.5 PROCEDURES FOR DETERMINING ACCEPTABLE CORE RECOVERY~~

~~1. Calculate recovery percentage by the following equation:~~

$$\text{Recovery}(\%) = \frac{\text{recovery}(\text{feet}) - \text{gaps}(\text{feet})}{\text{actual penetration}(\text{feet})} \times 100$$

~~2. Record recovery percentage on the Individual Core Collection Form.~~

~~If recovery is  $\geq 75\%$ , then recovery is acceptable. Continue processing core, then move to a new core location in accordance with~~

~~3. 4.2.5 SOP No. 2 – Positioning. Proceed to Step 2 of Section 4.2.3 for collection of second core. If the recovery  $< 75\%$ , proceed to Step 4.~~

~~4. If recovery is  $< 75\%$ , then (a) retain core and (b) move to a new coring position in accordance with SOP No. 2 – Positioning. Upon three unsuccessful attempts to obtain  $> 75\%$  recovery, contact PM to determine if additional cores should be attempted.~~

~~5. Upon collection of acceptable core(s), proceed to Section 4.2.6 of this SOP, Management of Cores.~~

#### ~~4.2.6 MANAGEMENT OF CORES~~

- ~~1. Containerize excess sediment on the vessel. The field crew will make reasonable attempts to containerize "gross" sediment material produced from coring. Sediment residuals generated from rinsing operations will not be included in such containerization. Dispose of solid material (e.g., core tube, caps, sediment) in accordance with SOP No. 4 – Management and Disposal of Residuals.~~
- ~~2. Verify that the water depth and positioning data have been recorded on the Individual Core Collection Form.~~
- ~~3. Prior to transit to the next coring location or return to the marina, decontaminate the coring equipment and sampling vessel decking as described in SOP No. 13 – Decontamination.~~
- ~~4. Proceed to next core location specified for that day and repeat above procedures.~~

5. Completed Core Collection and Individual Core Collection Forms will be provided to the Sample Processing Area personnel when relinquishing cores for processing.

## 5.0 QUALITY ASSURANCE

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Completing the Daily Activity Log, Core Collection Form, and the Individual Core Collection Form provided in this SOP, will document that the process is being followed and that pertinent information is being collected and recorded in accordance with the procedures outlined in this SOP. Entries in the forms will be double-checked by the samplers to verify the information is correct. Completed forms will be reviewed periodically by the FC and/or Project Quality Assurance Officer or their designees to verify that the requirements are being met.

## 6.0 DOCUMENTATION

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Field notes will be kept during coring activities in accordance with SOP No. 8 – Documenting Field Activities. In addition to information contained in the Daily Activity Log, Core Collection Form, and Individual Core Collection Form, the times of equipment decontamination will be recorded in a logbook.

## 7.0 REFERENCES

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Tierra. 2007. Newark Bay Study Area Remedial Investigation Work Plan [Rev. 1]. Volume 2 Health and Safety/Contingency Plan. September.

**DAILY ACTIVITY LOG**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 1 of 2)

I.	Date: _____ (1)		
II.	Vessel Name: _____ (2)		
III.	Personnel (Name/Affiliation/Role): _____ (3)		
	_____		
	_____		
IV.	Equipment on Board:		
	Name/Type	Model No.	Serial No.
	(4)	(5)	(6)
	Coring Device:		
	DGPS:		
	Fathometer:		
	Other:		
	Other:		
V.	Weather Forecast Checked?: Yes No (7)		
	Describe Weather:		
VI.	Time of High Tide? (8)		
	Time of Low Tide?		

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**DAILY ACTIVITY LOG**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 2 of 2)

VII.	Date: _____ (1)	
VIII.	Health and Safety Briefing Topic: _____ (9)	
	_____	
	_____	
	_____	
IX.	Notification:	
	Agency	Contact
	(10)	(11)
	Vessel Tracking Service	(12)
	_____	_____
X.	Time of Departure from Marina: _____ (13) _____ (24-hour)	
XI.	Time of Return to Marina: _____ (14) _____ (24-hour)	
XII.	Name of Person Responsible for Log: _____ (15)	

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**DAILY ACTIVITY LOG KEY**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 1 of 1)

**DESCRIPTION OF ITEMS:**

- (1) Date of activity (e.g., 1/1/2010).
- (2) Name of vessel performing activity.
- (3) Personnel on vessel, including name, affiliation, and role on the vessel.
- (4) Name or type of equipment (e.g., for DGPS, enter Trimble); if specific equipment type not listed, enter under "Other."
- (5) Model number of equipment (e.g., for DGPS, enter 7400).
- (6) Serial number of equipment (if available).
- (7) Weather forecast checked via marine radio, Newark Liberty International Airport, etc.
- (8) Time of High and Low Tide for the day checked via NOAA/National Ocean Service's website.
- (9) Significant topic(s) discussed at daily health and safety briefing.
- (10) Name of Agency(ies) notified of daily activities.
- (11) Agency(ies) contact name(s).
- (12) Time that Agency(ies) was(were) contacted (24-hour format).
- (13) Time of departure from the marina at the beginning of the day (24-hour format).
- (14) Time of return to the marina at the end of the day (24-hour format).
- (15) Name of person entering information into this form.



**CORE COLLECTION FORM KEY**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
**(Sheet 1 of 1)**

**DESCRIPTION OF ITEMS:**

- (1) Date of coring (e.g., 1/1/2010).
- (2) Start time of activities at location (24-hour format).
- (3) End time of activities at location in (24-hour format).
- (4) Location ID.
- (5) Water depth and time water depth was measured.
- (6) Physical description of core location.
- (7) Wind speed and direction at time of core collection (e.g., 10-15 mph from NW).
- (8) Air temperature at time of core collection (e.g., 68°F).
- (9) Precipitation at time of core collection (e.g., light rain).
- (10) Cloud cover at time of core collection (e.g., partly cloudy).
- (11) RiverBay state at time of core collection (e.g., 0-1 foot waves).
- (12) Confirm sufficient ice is within core storage container.
- (13) Summary of cores collected at location.
- (14) Core ID; refer to SOP No. 7 Table 3 in the Phase III QAPP Amendment for core identification code.
- (15) Final Northing coordinate of core collection location in feet.
- (16) Final Easting coordinate of core collection location in feet.
- (17) Name of person entering information into this form.

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**INDIVIDUAL CORE COLLECTION FORM**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: _____ (1)
II.	Core ID: _____ (2) Water _____ Depth _____ and _____ precise _____ time _____ measured _____ _____ (3)
III.	Sediment Collection Method (circle one): (34) - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ (45) - Easting (ft): _____ (56) Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ (67) - Easting (ft): _____ (78) Confirm initial core location coordinates are within 5 feet of target coordinates (89) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ (910) - Easting (ft): _____ (1011) Confirm final core location coordinates are within 50 feet of target coordinates (112)

**INDIVIDUAL CORE COLLECTION FORM**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: _____ (1)
VI.	Core ID: _____ (2)
VII.	Water Depth at Time of Coring (ft): _____ (1213) Precise Time When Water Depth Was Measured _____ (14)
VIII.	Start Time of Coring (24-hour): _____ (1315) End Time of Coring (24-hour): _____ (1416)
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): _____ (17)</li> <li>- Target Penetration (ft): _____ (15in): _____ (18)</li> <li>- Actual Penetration (ft): _____ (16in): _____ (19)</li> <li>- Acceptable Penetration Achieved (Y or N): _____ (17) _____)*: _____ (20)</li> </ul> Refusal? (circle one): Yes No(1821) Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: _____ (1922)  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: _____ (1)
XII.	Core ID: _____ (2)
XIII.	Recovery: <ul style="list-style-type: none"> <li>- Recovery (ft): _____ (20in): _____ (23)</li> <li>- Recovery (%): _____ (21) Acceptable (Y or N): _____ (24)</li> </ul> <div style="text-align: center;"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math> </div> <p><del>_____ Gaps Identified</del></p> <p style="text-align: center;">_____ (22)</p> <hr/> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, (ft) ≥ 9 inches, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, (ft) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 3-11)</u></p>
XIV.	Final Disposition of Core (circle one): _____ (23/25) <ul style="list-style-type: none"> <li>- Retained for Processing</li> <li>- Rejected</li> </ul> If rejected, reason for rejection: _____ (24/26) <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM  
 SEDIMENT AND GEOTECHNICAL INVESTIGATION  
 (Sheet 4 of 4)**

XV.	Date: _____ (1)
XVI.	Core ID: _____ (2)
XVII.	Notes (see logbook for additional information): <u>(2527)</u> _____ _____ _____
XVIII.	Name of Person Responsible for Log: _____ (2628)

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Relinquished By (2729) Company (2830) Date (2931) Time (3032)  
 Accepted By (3133) Company (3234) Date (3335) Time (3436)

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM KEY**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 1 of 2)

**DESCRIPTION OF ITEMS:**

- (1) Date of coring (e.g., 1/1/2010).
- ~~(2)~~ Core ID (see ~~SOP No. 7—Containers, Preservation, Handling, Table 3 of the Phase III QAPP Amendment~~).
- ~~(2)~~~~(3)~~ ~~Water depth and Tracking of Samples for Analysis~~; time water depth was measured.
- ~~(3)~~~~(4)~~ Sediment collection method used (e.g., vibracoring).
- ~~(4)~~~~(5)~~ Target Northing coordinate in feet.
- ~~(5)~~~~(6)~~ Target Easting coordinate in feet.
- ~~(6)~~~~(7)~~ Final Position Northing coordinate in feet.
- ~~(7)~~~~(8)~~ Final Position Easting coordinate in feet.
- ~~(8)~~~~(9)~~ Confirm the initial position location is within 5 feet of the target location.
- ~~(9)~~~~(10)~~ Final Northing coordinate of core collection location in feet. This location may be different than (5) due to the adjustment of vessel position for multiple core attempts at the same location.
- ~~(40)~~~~(11)~~ Final Easting coordinate of core collection location in feet. This location may be different than (6) due to the adjustment of vessel position for multiple core attempts at the same location.
- ~~(11)~~~~(12)~~ Confirm the final core collection location is within 50 feet of the target location.
- ~~(12)~~~~(13)~~ Water depth at core collection location in feet.
- ~~(14)~~ ~~Time water depth was taken (24-hour format)~~.
- ~~(13)~~~~(15)~~ Time core collection with vibracoring device is started (24-hour format).
- ~~(14)~~~~(16)~~ Time core collection with vibracoring device is finished ~~in~~ (24-hour format).
- ~~(17)~~ ~~Length of the core liner used during coring activities in inches~~.
- ~~(15)~~~~(18)~~ Target penetration in ~~feet~~~~inches~~ with vibracoring device.
- ~~(16)~~~~(19)~~ Actual penetration of core into sediment. Actual penetration is the depth advanced into the sediment not including the depth advanced to form a sediment “plug.”
- Actual penetration (~~ft~~~~in~~) = Penetration (~~ft~~~~in~~) – “plug” (~~ft~~~~in~~)

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**INDIVIDUAL CORE COLLECTION FORM KEY**  
**SEDIMENT AND GEOTECHNICAL INVESTIGATION**  
(Sheet 2 of 2)

~~(17)~~(20) Acceptable Penetration Achieved (Y or N).

~~(18)~~(21) Depth of refusal, if target penetration not achieved.

~~(19)~~(22) PID reading in the breathing zone upon screening core.

~~(20)~~(23) Recovery (~~#in~~) = sediment length in core. To identify gaps, visually inspect the core for signs of separation of the sediments within the core, smears on the polybutyrate L exan core tube walls or a water layer within the sediments. Measure the distance between the top and bottom of these interfaces to obtain the length(s) of the gap(s).

~~(21)~~ Recovery (%) = sediment length in core per actual penetration.

~~(22)~~ Record any gaps identified. Record approximate location (feet below the sediment surface) and the size of the gap (feet). For example, "0.1 foot gap observed at 1.5 feet below sediment surface."

~~(24)~~ Acceptable recovery achieved (Y or N).

~~(23)~~(25) Final disposition of core (e.g., retained for processing or rejected).

~~(24)~~(26) Provide explanation for rejecting core (e.g., recovery < ~~75%~~ 9 inches).

~~(25)~~(27) Provide notes pertinent to core collection (e.g., aborted core collection due to weather); additional details may be provided in logbook.

~~(26)~~(28) Name of person entering information into this form.

~~(27)~~(29) Name of personnel relinquishing core.

~~(28)~~(30) Company affiliation of personnel relinquishing core.

~~(29)~~(31) Date core is relinquished.

~~(30)~~(32) Time core is relinquished (24-hour format).

~~(31)~~(33) Name of personnel accepting core.

~~(32)~~(34) Company affiliation of personnel accepting core.

~~(33)~~(35) Date core is accepted.

~~(34)~~(36) Time core is accepted (24-hour format).

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**STANDARD OPERATING PROCEDURE NO. 12**  
**CORE PROCESSING**

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### ATTACHMENTS

CORE LITHOLOGY/DESCRIPTION FORM  
SAMPLE PROCESSING FORM

### 3.0 PURPOSE AND SCOPE

---

The purpose of this document is to define the standard operating procedure (SOP) for processing of the cores collected as part of the Newark Bay Study Area Phase III Quality Assurance Project Plan Amendment (Phase III QAPP). Core processing includes observational and photologging of cores, and the collection of samples for grain size and chemical analyses. Core processing will be conducted to meet the sample collection and analysis objectives defined in the Phase III QAPP.

This SOP may change depending upon field conditions at Newark Bay or limitations imposed by the procedure. Substantive modification to this SOP shall be approved in advance by the Facility Coordinator (FC) and the United States Environmental Protection Agency (USEPA) Remedial Project Manager. The ultimate procedure employed will be documented in the Newark Bay RI Report.

Other SOPs will be utilized in conjunction with this SOP, including:

- SOP No. 3 – Decontamination;
- SOP No. 4 – Management and Disposal of Residuals;
- SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis;
- SOP No. 8 – Documenting Field Activities; and
- SOP No. 11 – Sediment Collection Using Vibracoring Device.

## 4.0 PROCEDURES

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Cores will be processed in accordance with the procedures outlined below.

### 4.1 EQUIPMENT LIST

The following equipment list contains materials which may be needed in carrying out the procedures contained in this SOP. Not all equipment listed below may be necessary for a specific activity. Additional equipment may be required, pending field conditions.

- personal protective equipment (PPE) and other safety equipment, as required by Phase II RIWP HASCP [Rev. 1] (Tierra, 2007);
- sample processing table;
- project Quality Assurance Project Plan;
- logbook and associated Core Lithology/Description Forms and Sample Processing Forms;
- ruler or measuring tape;
- table of target sample location coordinates;
- sampling equipment: stainless steel spoons, spatulas and bowls;
- sample bottles for chemical analyses;
- refrigerator, at 4°C;
- digital camera with flash;
- EnCore samplers and T-handle or equivalent;
- ~~turkey baster~~ drill and drill bits;
- Unified Soil Classification System (USCS) Charts;
- photoionization detector (PID) (with calibration kit);
- core storage rack or cooler to hold cores vertical and keep cold prior to either processing or placement in a refrigerator;
- grease pencil;
- appropriate waste disposal equipment; and
- scales to weigh sediment cores and samples.

## 4.2 PROCEDURE

The core processing procedure presented in this SOP is a multi-step process. Cores will be logged and photographed, and samples will be collected and submitted for chemical analyses.

### 4.2.1 DECONTAMINATION OF EQUIPMENT

Decontamination of equipment prior to contact with sediment will be performed in a designated decontamination area. The decontamination will be performed in accordance with procedures outlined in SOP No. ~~4~~3 – Decontamination. Equipment decontamination will be conducted sufficiently ahead of the processing activities to allow for the implementation of proper procedures (including drying of decontaminated equipment).

### 4.2.2 PRELIMINARY ACTIVITIES PRIOR TO PROCESSING

These steps will be undertaken prior to core processing.

1. Acquire the necessary sampling equipment (e.g., decontaminated stainless steel processing equipment), containers, and label the sample containers with the appropriate sample labels.
2. Upon delivery of the core to the processing laboratory, a hard copy of the forms initiated for each core during coring operations, the Daily Activity Log, the Core Collection Form, and the Individual Core Collection Form, will be provided to the Sample Processing Area personnel (SOP No. 8 – ~~Field Documenta~~ation ~~ationing~~ Field Activities). The Individual Core Collection Form will be signed by the coring personnel and the Sample Processing Area personnel. The Individual Core Collection Form will serve as the chain of custody document from the field to the Sample Processing Area.
3. Cores will be maintained in a vertical position in a core storage rack or cooler (capable of keeping cores cold) while in transit to the Sample Processing Area. At the Sample Processing Area, cores will be stored vertically and kept cold (in either the refrigerator, cooler, or core storage rack) prior to processing. The Sample Processing Area will be within a secure (i.e., locked) location, allowing for limited access.
4. Transcribe the pertinent field information from the Individual Core Collection Form to the Core Description Form.
5. Dry the surface of the core tube with clean paper towels and measure the length of sediment in the core tube.
- ~~6. Adjust the core segmentation scheme by calculating the percent recovery from the actual penetration and the length of sediment in the core tube. All segment lengths will be modified by this same percentage. For example, a core with 80% percent recovery would result in a planned 1-foot segment being modified to a 0.8-foot segment.~~
- ~~7. Following the segment adjustment described in Step 6, measure the length of sediment in each section of core, and compare to the length of sediment in each section as recorded during core collection. To account for differences in sediment length (if any) due to settling in individual sections of the core, further adjust the core segmentation scheme for each section of core by the percent difference in the length of sediment measured after core collection and prior to core processing.~~

86. Keeping the core upright, use a decontaminated drill bit to make a hole in the core tube approximately 2 inches above half way between the sediment-water interface and the water surface to allow excess water to seep from the core tube. Continue to make holes in the core tube, lowering approximately half the distance 1 inch each time until reaching the sediment/water interface. (The over-riding objective is to prevent/minimize the loss of suspended sediment.) When all excess water has been drained from above the sediment/water interface, if necessary, cut off excess core tube proceed with processing.

#### 4.2.3 CORE PROCESSING

The procedures involve keeping the core in a vertical position and then carefully removing the sediments into a stainless steel bowl for processing or directly into the EnCore samplers (or equivalent) for VOC and TEPH-purgeables analysis. Note that a primary and secondary core up to 3 cores (to provide additional sediment for the 0-6" segment) may be collected at each location to provide additional sediment for collection of field duplicate and/or MS/MSD samples from the 0-6" interval.

1. With the primary core in the vertical position, mark the outside of the core tube with a grease pencil with the appropriate sample interval (0-6"), beginning at the sediment-water interface.
2. For VOC and TEPH-purgeables analysis, place sediment from the primary core into an EnCore sampler (or equivalent) until the sampler is full. Sediment for VOC and TEPH-purgeables analysis will be collected with three EnCore samples (or equivalent). Collect a sample for moisture content (for use in VOC analysis) from the same location as the VOC samples were collected. Collect the moisture content sample using a stainless steel utensil, and place in the appropriate sample container.
3. Remove all remaining sediment from the 0-6" interval in a ladling fashion using a stainless steel spoon without disturbing sediment in deeper segments. Place this sediment in a stainless steel bowl.
4. Remove all sediment from the 0-6" interval of the secondary and tertiary cores, as applicable needed for field duplicate and/or MS/MSD samples, in a ladling fashion using a stainless steel spoon without disturbing sediment in deeper segments. Place this sediment in the stainless steel bowl used in Step 3.
5. Visually describe the sediments in the stainless steel bowl. Using the USCS record the description of the sediment type in the appropriate section of the Core Lithology/Description Form. Provide a description of approximate grain size (silt, clay, fine sand, medium sand, coarse sand, and gravel), the presence of observable biota or organic matter, odor, and color. Note any unusual observations in the appropriate column. Identify changes in lithology (such as soil type or grain-size) within the core. If changes in lithography are observed, then the approximate length of various layers will be noted. Changes in lithology will be separated with a line on the Core Lithology/Description Form.
6. Photograph the sediment in the stainless steel bowl. If foreign objects are present or unusual characteristics are noted, photograph the object or unusual characteristic. Make sure an adequate amount of light is available to photograph the sediment and include a photograph ID label and a ruler in the photograph.
7. Record a description of each photograph in a logbook. Descriptions will include photo number, date, time (24-hour format), core number, depth interval shown in picture, and photographer's name. Unusual observations will also be recorded.

8. Thoroughly mix (homogenize) the sediment in the center of the stainless steel bowl until color and texture differences are no longer detected. Collect samples for chemical analysis. Identify mass of sediment and compare to minimum analyte sample mass requirements listed in Worksheet 19-2 of the Phase III QAPP.
9. Fill pre-labeled sample jars for remaining chemical analyses in accordance with SOP No. ~~9-5~~ – Containers, Preservation, Handling, and Tracking of Samples for Analysis. Confirm that the sample identification has been recorded in the Sample Processing Form.
10. If determined necessary by the Sample Processing Area personnel, the individual sample bottles may be weighed to ensure appropriate sample volume for lab analysis, as presented by Worksheet 19-2 of the Phase III QAPP.
11. Remaining sediment and core tube lengths will be disposed of in accordance with SOP No. 4 – Management and Disposal of Residuals.

#### **4.2.4 COLLECTION OF QUALITY ASSURANCE SAMPLES**

##### **4.2.4.1 FIELD QUALITY CONTROL (QC) SAMPLES**

QC samples will be collected during core sample processing. QC samples will be labeled, maintained, and transported in accordance with SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis. QC samples will include field blanks and field duplicate samples. The QC samples will be collected at the frequency specified in Table 6 of the Phase III QAPP.

##### **4.2.4.2 FIELD BLANKS**

~~For the core processing, one field blank will be collected and submitted for testing each day a decontamination event is carried out (not to exceed one per day).~~ The procedures for the collection of field blanks are described in SOP No. 3 – Decontamination. The parameters that are being analyzed in the field samples are listed in Table 7 of the Phase III QAPP. The field blank sample is labeled, maintained, and transported in accordance with SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.

##### **4.2.4.3 TRIP BLANKS**

Trip blanks are sealed containers of analyte-free water provided by the analytical laboratory and carried with the field sample bottles during the sampling event. When the sampling event has ended, the trip blanks are labeled and returned to the laboratory along with representative field samples. Trip blanks will be processed for VOCs, mercury, and methylmercury (only) at a frequency of one for each cooler shipped from field to laboratory which contains VOC, mercury, and methylmercury field samples.

##### **4.2.4.4 FIELD DUPLICATE SAMPLES**

Field duplicate samples will be collected following the same procedures as the collection of samples for

chemical analyses. One field duplicate sample will be collected for every 20 field samples (per matrix and per method). The duplicate samples will be labeled, maintained, and transported in accordance with SOP No. 5 – Containers, Preservation, Handling, and Tracking of Samples for Analysis.

#### 4.2.4.5 ~~L~~ABORATORY QUALITY CONTROL SAMPLES

Matrix spike/matrix spike duplicates (MS/MSD) are required as laboratory QC tests for organic analyses. Matrix spike/duplicates (MS/DUP) are required as laboratory QC tests for metals and cyanide analyses. Within each Sample Delivery Group (SDG), one MS/MSD (for organic analysis) and one MS/DUP (for inorganic analysis) must be collected for each analytical group submitted. It is not necessary that the MS/MSD or MS/DUP be derived from the same sample. Therefore, field personnel will designate a sediment sample from each SDG to be used for these analyses for each analytical method. Minimum sample analysis mass requirements, as well as additional ~~Laboratory~~laboratory QC sample mass requirements, are provided in Worksheet 19-2 of the Phase III QAPP.

## 5.0 QUALITY ASSURANCE

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Completing the Core Lithology/Description Form and Sample Processing Form provided in this SOP, will document that the process is being followed and pertinent information is being collected and recorded in accordance with the procedures outlined in this SOP. Entries in the forms and logbook will be double-checked by the samplers to verify the information is correct. Completed forms will be reviewed periodically by the FC and/or Project Quality Assurance Officer or their designees to verify that the requirements are being met.

## 6.0 DOCUMENTATION

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Field notes will be kept during core processing activities in accordance with SOP No. 8 – Documenting Field Activities. The core weights and sample weights (if collected) will be recorded in the logbook. In addition, the following core photologging information should also be included in the logbook (at a minimum):

- Photograph number;
- Time of photograph;
- Core number;
- Depth interval shown in the picture;
- Photographer's name; and
- Unusual observations.

## 7.0 REFERENCES

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Tierra. 2007. Newark Bay Study Area Remedial Investigation Work Plan [Rev. 1]. Volume 2 Health and Safety/Contingency Plan. September.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: _____ (1) _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____ (2) _____
III.	Core ID: _____ (3) _____ (from Individual Core Collection Form)
IV.	Physical Description: _____ (4) _____ (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): _____ (5) _____ (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): _____ (6) _____ (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: _____ (7) _____

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: \_\_\_\_\_ (1) Date of Core Processing: \_\_\_\_\_ (2)

Core ID: \_\_\_\_\_ (3)

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core) (8)	PID Screening (ppm) (9)	Description (10)	Engineer's/Geologist's Notes (11)
0.0			
-			
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

~~Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.~~

**CORE LITHOLOGY/DESCRIPTION FORM KEY**  
**PHASE III SEDIMENT INVESTIGATION**  
**(Sheet 1 of 1)**

**DESCRIPTION OF ITEMS:**

- (1) Date of core collection (taken from the Individual Core Collection Form).
- (2) Date of core processing (e.g., 1/1/2010).
- (3) Core ID (taken from the Individual Core Collection Form).
- (4) Physical description of core location.
- (5) Northing coordinate in feet of core collection location (taken from the Individual Core Collection Form).
- (6) Easting coordinate in feet of core collection location (taken from the Individual Core Collection Form).
- (7) Name of person entering information into this form.
- (8) Depth (feet below the sediment surface) of change in lithology and Unified Soil Classification System (USCS) description identified during logging.
- (9) PID reading in ppm for the breathing zone above the interval screened (e.g., 6 ppm).
- (10) Description of soil type using the USCS charts.
- (11) Provide notes pertinent to the sample description (e.g., 1" gap observed in this interval) for a given lithological interval.

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
**(Sheet 1 of 3)**

I.	Date of Core Collection: _____ (1) _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____ (2) _____
III.	Core ID: _____ (3) _____ (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u> (4)</p> <p>Coordinate Northing (ft, NAD 83): _____ (5) _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (6) _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (<del>ft</del><u>in</u>): _____ (7) _____ (from Individual Core Collection Form)</p> <p>Recovery (<del>ft</del><u>in</u>) During Core Collection: _____ (8) _____ (from Individual Core Collection Form)</p> <p>Recovery (<del>%</del><u>in</u>) <del>During Core Collection</del> <u>Acceptable (Y or N)*</u>: _____ (9) _____ (from Individual Core Collection Form)</p> <p><u>*Acceptable recovery ≥ 9 inches.</u></p> <p><del>Recovery (ft) During Core Processing:</del> _____ (10) _____</p> <p><del>Recovery (%) During Core Processing:</del> _____ (11) _____</p> <p style="text-align: center;">Recovery (ft) During Core Processing - Gaps (ft)</p> <p><del>Recovery (%) During Core Processing =</del> <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (1) _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____ (2) _____
III.	Core ID: _____ (3) _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u> _____ (<del>4</del>210)</p> <p>Coordinate Northing (ft, NAD 83): _____ (<del>4</del>311) _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (<del>4</del>412) _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (#in): _____ (<del>4</del>513) _____ (from Individual Core Collection Form)</p> <p>Recovery (#in) During Core Collection: _____ (<del>4</del>614) _____ (from Individual Core Collection Form)</p> <p><u>Recovery Acceptable (Y or N)*:</u> _____ (15) _____ (from Individual Core Collection Form)</p> <p><u>*Acceptable recovery is ≥ 9 inches.</u></p> <p><u>Tertiary Core (for MS/MSD):</u> _____ (16)</p> <p><u>Coordinate Northing (ft, NAD 83):</u> _____ (17) _____ (from Individual Core Collection Form)</p> <p><u>Coordinate Easting (ft, NAD 83):</u> _____ (18) _____ (from Individual Core Collection Form)</p> <p><u>Actual Penetration (#in):</u> _____ (19) _____ (from Individual Core Collection Form)</p> <p><u>Recovery (#in) During Core Collection:</u> _____ (20) _____ (from Individual Core Collection Form)</p> <p><u>Recovery Acceptable (Y or N)*:</u> _____ (21) _____ (from Individual Core Collection Form)</p> <p><u>*Acceptable recovery is ≥ 9 inches.</u></p> <p><u>Recovery (%) During Core Collection:</u> _____ (17) _____ (from Individual Core Collection Form)</p> <p><u>Recovery (ft) During Core Processing:</u> _____ (18) _____</p> <p><u>Recovery (%) During Core Processing:</u> _____ (19) _____</p> <p><u>Recovery (%) During Core Processing =</u> <math display="block">\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: _____ ( <del>2</del> 022)



**SAMPLE PROCESSING FORM KEY**  
**PHASE II SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

**DESCRIPTION OF ITEMS:**

- (1) Date of core collection (taken from the Individual Core Collection Form).
- (2) Date of core processing (e.g., 1/1/2006).
- (3) Core ID (e.g., NS02SED090B) (taken from the Individual Core Collection Form).
- (4) The ~~chemical analysis~~primary core is the core from which sediment is being taken for chemical analysis.
- (5) Northing coordinate in feet of core collection location (taken from Individual Core Collection Form).
- (6) Easting coordinate in feet of core collection location (taken from Individual Core Collection Form).
- (7) Actual penetration of core into sediment (taken from the Individual Core Collection Form).
- (8) Recovery (~~in ft~~) at time of core collection = sediment length in core at the time of core collection (taken from the Individual Core Collection Form).
- ~~(9) Acceptable R~~recovery (%) achieved at time of core collection (Y or N) = ~~sediment length at the time of core collection in core per actual penetration~~ (taken from the Individual Core Collection Form).
- ~~(9)~~(10) ~~The secondary core is the core from which sediment is being taken and homogenized with the primary core for field duplicate or MS/MSD sample analysis.~~
- ~~(10) Recovery (ft) at time of core processing = sediment length in core at the time of processing. Note: the length of sediment in the core and the recovery may be different than listed on the Individual Core Collection Form due to additional consolidation of sediments within the core between the time cored and time processed.~~
- ~~(11) Recovery (%) during core processing = sediment length at the time of processing per actual penetration.~~
- ~~(12) The radiochemical analysis core is the core from which sediment is being taken for radiochemical analysis.~~
- ~~(13)~~(11) Northing coordinate in feet of core collection location (taken from Individual Core Collection Form).
- ~~(14)~~(12) Easting coordinate in feet of core collection location (taken from Individual Core Collection Form).
- ~~(15)~~(13) Actual penetration of core into sediment (taken from the Individual Core Collection Form).

**SAMPLE PROCESSING FORM KEY**  
**PHASE II SEDIMENT INVESTIGATION**  
(Sheet 2 of 2)

- ~~(16)~~(14) Recovery (ft) at time of core collection = sediment length in core at the time of core collection (taken from the Individual Core Collection Form).
- ~~(15)~~ Acceptable recovery achieved at time of core collection (Y or N) (taken from the Individual Core Collection Form). ~~Recovery (%) at time of core collection = sediment length at the time of core collection in core per actual penetration (taken from the Individual Core Collection Form).~~
- ~~(16)~~ The ~~secondary~~tertiary core is the core from which sediment is being taken and homogenized with the primary and secondary core for field duplicate or MS/MSD sample analysis.
- ~~(17)~~ Northing coordinate in feet of core collection location (taken from Individual Core Collection Form).
- ~~(18)~~ Easting coordinate in feet of core collection location (taken from Individual Core Collection Form).
- ~~(19)~~ Actual penetration of core into sediment (taken from the Individual Core Collection Form).
- ~~(20)~~ Recovery (ft) at time of core collection = sediment length in core at the time of core collection (taken from the Individual Core Collection Form).
- ~~(17)~~(21) Acceptable recovery achieved at time of core collection (Y or N) (taken from the Individual Core Collection Form).
- ~~(18)~~ Recovery (ft) at time of core processing = sediment length in core at the time of processing.
- ~~(19)~~ Recovery (%) at time of core processing = sediment length at the time of processing per penetration.
- ~~(20)~~(22) Name of person entering information into this form.
- ~~(21)~~(23) Sample ID (e.g., NS02SED090B-02); refer to SOP No. 95, Section 42.2.1, for sample identification code.
- ~~(22)~~(24) Time sample was removed from core (24-hour format).
- ~~(23)~~(25) Sample interval = ~~target-measured~~ sample interval depths ~~during sample processing~~ multiplied by ~~Recovery (%) at time of core processing~~. For example, if target sample interval is 0.5–1.5 feet and the ~~Recovery (%) at time of core processing~~ is 80%, then the sample interval would be 0.4–1.2 feet.
- ~~(24)~~(26) Check the boxes for which analyses the sample is being submitted.
- ~~(25)~~(27) Provide any pertinent comments regarding the sediment sample submitted for analyses (e.g., not enough sample volume; therefore, TEPH and TOC not requested for analysis).

## Protocol Modification Form No. 7: Composite Sample Processing

Project Name and Number: Newark Bay

Material to be Sampled: Sediment

Measurement Parameter: Sediment Processing – Composite Sample Processing Form and composite homogenization procedures

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):

SOP No. 6 – Sediment Sample Collection, Surface Sediment Sample Processing Form

Reason for Change in Field Procedure or Analysis Variation:

A. During the external field audit, a mock trial of composite sample processing was performed. During this trial it was determined that some changes to the sample processing form would be helpful to capture the required information. B. During the first day of composite sample homogenization on November 15, 2016, an improved approach for homogenizing composite samples was agreed upon with Louis Berger.

Variation from Field or Analytical Procedure:

A. The Surface Sediment Sample Processing Form in SOP No. 10 was used as the starting point for modification because it was closest to containing the information needed for processing composite grab samples. The revised form, Composite Surface Sediment Sample Processing Form, is attached and will be used in place of the Surface Sediment Sample Processing Form currently in SOP No. 6.

B. The following steps will be followed to homogenize composite samples: (1) Pull all individual samples (buckets) for a given composite from the cooler. (2) Remove lids from each bucket and empty the contents of each individual bucket into its own decontaminated stainless steel bowl by inverting the Teflon liner and emptying the contents. (3) Before mixing, photograph the contents of each stainless steel bowl and record the pre-mixing sediment description on the Composite Sample Processing Form. (4) Homogenize the contents of each individual stainless steel bowl. Note: the same spoon can be used for homogenizing the individual bowls for a given composite sample; however, the spoon should be rinsed with DI water between each individual sample. (5) Fill laboratory-supplied sample jar(s) as prescribed below with sediment from each individual bowl that makes up the composite and empty the contents of the sample jar into a decontaminated stainless steel bowl. (a) If the composite is made up of 2 individual grab samples, three (3) 16 oz. jars from each individual grab sample will be filled with zero headspace. (b) If the composite is made up of 3 or 4 individual grab samples, two (2) 16 oz. jars from each individual grab sample will be filled with zero headspace. (c) If the composite is made up of 5 or more individual grab samples, one (1) 16 oz. jar from each individual grab sample will be filled with zero headspace. (6) Homogenize the composite sediment in the stainless steel bowl. (7) Photograph contents of stainless steel bowl and record the post-mixing sediment description on the Composite Sample Processing Form. (8) Fill sample jars.

Special Equipment, Materials or Personnel Required:

No special equipment, materials or personnel required.

Initiator's Name: Clifford Firstenberg, Tierra Solutions Date: 11/01/06  
Project Manager: Clifford Firstenberg, Tierra Solutions Date: 11/01/16  
QA Manager: Angela Gatchie, Field & Technical Services Date: \_\_\_\_\_  
USEPA Authority: \_\_\_\_\_ Date: \_\_\_\_\_

### Composite Surface Sediment Sample Processing Form

Date: \_\_\_\_\_ Time Grab Samples Removed from Cooler: \_\_\_\_\_

Composite Sample ID: \_\_\_\_\_ Number of Grabs to Homogenize: \_\_\_\_\_

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment

**Mixer:**

Mixing Method Used (circle one):      Manual      Cement Mixer  
If Cement Mixer Used:      Time on: \_\_\_\_\_      Time off: \_\_\_\_\_  
Homogeneity Achieved? Y / N  
Post-Mixing Description of Sediment: \_\_\_\_\_  
\_\_\_\_\_

**Photograph (post- mixing):**

Number: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Person Responsible for Completing Form: \_\_\_\_\_

**Protocol Modification Form No. 8: PCB Congener Data Validation**

Project Name and Number: Newark Bay

Material to be Sampled: Sediment

Measurement Parameter: PCB Congeners (Analytical Method/SOP: L-2; USEPA Method 1668A)

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):  
Worksheet #36 specifies the validation criteria as EDS SOP: Congener PCB, Rev. 3, 7/10.

Reason for Change in Field Procedure or Analysis Variation:  
The SOP has tighter acceptance criteria for PCB retention times that cause otherwise acceptable data (per EPA's validation SOP) to be rejected.

Variation from Field or Analytical Procedure:  
EDS SOP: Congener PCB, Rev. 3, 7/10 will be replaced with USEPA Region II SOP for PCB Congeners, SOP HW-46, Revision 1, dated September 2008 "Standard Operating Procedures for EPA Method 1668."

Special Equipment, Materials or Personnel Required:  
No special equipment, materials or personnel required.

Initiator's Name: Carlie Thompson, Glenn Springs Holdings Date: \_\_\_\_\_

Project Manager: Carlie Thompson, Glenn Springs Holdings Date: \_\_\_\_\_

QA Manager: Angela Gatchie, Field & Technical Services Date: \_\_\_\_\_

USEPA Authority: Eugenia Naranjo, Remedial Project Manager Date: \_\_\_\_\_

**Protocol Modification Form No. 9: PCB Congener OPR Recoveries**

Project Name and Number: Newark Bay

Material to be Sampled: Sediment

Measurement Parameter: PCB Congeners (Analytical Method/SOP: L-2; USEPA Method 1668A)

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):  
Worksheet #28-2b lists measurement performance criteria for sediment. The QC Sample "Ongoing Precision and Recovery" (OPR) has a corrective action to re-extract and re-analyze if the QC acceptance ranges are exceeded (if sufficient sample is available).

Reason for Change in Field Procedure or Analysis Variation:  
Eurofins Lancaster Laboratories has proven that the instances of OPR exceedances are not systemic and other QC parameters provide evidence of precision.

Variation from Field or Analytical Procedure:  
Eurofins Lancaster Laboratories will report the data with isolated OPR recoveries out of compliance and the data will be qualified in accordance with the data validation criteria.

Special Equipment, Materials or Personnel Required:  
No special equipment, materials or personnel required.

Initiator's Name: Angela Gatchie, Field & Technical Services Date: \_\_\_\_\_

Project Manager: Carlie Thompson, Glenn Springs Holdings Date: \_\_\_\_\_

QA Manager: Angela Gatchie, Field & Technical Services Date: \_\_\_\_\_

USEPA Authority: Eugenia Naranjo, Remedial Project Manager Date: \_\_\_\_\_

## **Appendix B**

Field Blank NB3151FB represents rinsate from the Teflon liner.

The other three field blanks (NB3153FB, NB3156FB, and NB3158FB) represent rinsate from the core liners and core caps.

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638001  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7003 SDG#: NB370-03FB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>Metals</b>					
		<b>SW-846 6010C</b>	<b>mg/l</b>	<b>mg/l</b>	
07070	Titanium in Water	7440-32-6	N.D.	0.0013	1
		<b>SW-846 6020</b>	<b>mg/l</b>	<b>mg/l</b>	
06023	Aluminum	7429-90-5	N.D.	0.0231	1
06024	Antimony	7440-36-0	N.D.	0.00048	1
06025	Arsenic	7440-38-2	N.D.	0.00068	1
06026	Barium	7440-39-3	N.D.	0.00096	1
06027	Beryllium	7440-41-7	N.D.	0.00011	1
06028	Cadmium	7440-43-9	N.D.	0.00019	1
06029	Calcium	7440-70-2	0.188 B	0.0981	1
06031	Chromium	7440-47-3	N.D.	0.00059	1
06032	Cobalt	7440-48-4	N.D.	0.00020	1
06033	Copper	7440-50-8	N.D.	0.00052	1
06034	Iron	7439-89-6	N.D.	0.0337	1
06035	Lead	7439-92-1	N.D.	0.000090	1
06036	Magnesium	7439-95-4	N.D.	0.0117	1
06037	Manganese	7439-96-5	N.D.	0.00088	1
06039	Nickel	7440-02-0	N.D.	0.00085	1
06040	Potassium	7440-09-7	N.D.	0.0669	1
06041	Selenium	7782-49-2	N.D.	0.00044	1
06042	Silver	7440-22-4	N.D.	0.00012	1
06043	Sodium	7440-23-5	0.184 B	0.0468	1
06045	Thallium	7440-28-0	N.D.	0.00016	1
06048	Vanadium	7440-62-2	N.D.	0.00020	1
06049	Zinc	7440-66-6	N.D.	0.0035	1
<b>Wet Chemistry</b>					
		<b>SW-846 9012A</b>	<b>mg/l</b>	<b>mg/l</b>	
08255	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
		<b>SW-846 9060A</b>	<b>mg/l</b>	<b>mg/l</b>	
00354	Total Organic Carbon (Quad)	n.a.	N.D.	0.50	1
	The reported result is the average of the following trials:				
	0	mg/l			
	0	mg/l			
	0	mg/l			
	0	mg/l			

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638001  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7003 SDG#: NB370-03FB

### Sample Comments

State of New Jersey Lab Certification No. PA011  
The analysis for mercury and methyl mercury was subcontracted to another laboratory. See attached reports.

B (for Inorganic tests) = estimated value: The result is  $\geq$  the Method Detection Limit (MDL)  
and  $<$  the Limit of Quantitation (LOQ).  
Note: LOQ = PQL

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07070	Titanium in Water	SW-846 6010C	1	162980635004	10/26/2016 07:48	Joanne M Gates	1
06023	Aluminum	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06024	Antimony	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06025	Arsenic	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06026	Barium	SW-846 6020	1	163056050001D	11/03/2016 05:26	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06028	Cadmium	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06029	Calcium	SW-846 6020	1	162986050003B	10/30/2016 19:02	Tara L Snyder	1
06031	Chromium	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06032	Cobalt	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06033	Copper	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06034	Iron	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06035	Lead	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06036	Magnesium	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06037	Manganese	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06039	Nickel	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06040	Potassium	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06041	Selenium	SW-846 6020	1	162986050003B	10/30/2016 19:02	Tara L Snyder	1
06042	Silver	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06043	Sodium	SW-846 6020	1	163056050001A	11/03/2016 14:25	Patrick J Engle	1
06045	Thallium	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06048	Vanadium	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
06049	Zinc	SW-846 6020	1	162986050003A	10/30/2016 19:02	Tara L Snyder	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162980635004	10/24/2016 22:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	162986050003	10/24/2016 22:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	163056050001	10/31/2016 15:50	JoElla L Rice	1
08255	Total Cyanide (water)	SW-846 9012A	1	16297117101B	10/24/2016 10:57	Dein K Bernot	1
00354	Total Organic Carbon (Quad)	SW-846 9060A	1	16300667601A	10/26/2016 15:06	Drew M Gerhart	1
08256	Cyanide Water Distillation	SW-846 9012A	1	16297117101B	10/23/2016 14:30	Barbara A Washington	1

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>				
02898	1,2-Dichlorobenzene	95-50-1	N.D.	1.0	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	1.0	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	1.0	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D</b>	<b>ug/l</b>	<b>ug/l</b>	
14241	Acetophenone	98-86-2	N.D.	1.0	1
14241	Atrazine	1912-24-9	N.D.	5.1	1
14241	Benzaldehyde	100-52-7	N.D.	5.1	1
14241	Benzidine	92-87-5	N.D.	61	1
14241	Benzoic acid	65-85-0	N.D.	15	1
14241	1,1'-Biphenyl	92-52-4	N.D.	1.0	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	1.0	1
14241	Butylbenzylphthalate	85-68-7	N.D.	5.1	1
14241	Di-n-butylphthalate	84-74-2	N.D.	5.1	1
14241	Caprolactam	105-60-2	N.D.	15	1
14241	Carbazole	86-74-8	N.D.	1.0	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.0	1
14241	4-Chloroaniline	106-47-8	N.D.	4.1	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	1.0	1
14241	bis(2-Chloroethyl) ether	111-44-4	N.D.	1.0	1
14241	2-Chloronaphthalene	91-58-7	N.D.	1.0	1
14241	2-Chlorophenol	95-57-8	N.D.	1.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	1.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	1.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
14241	Dibenzofuran	132-64-9	N.D.	1.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	5.1	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.0	1
14241	Diethylphthalate	84-66-2	N.D.	5.1	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	1.0	1
14241	Dimethylphthalate	131-11-3	N.D.	5.1	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	15	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	31	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	5.1	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	1.0	1
14241	1,2-Diphenylhydrazine	122-66-7	N.D.	1.0	1
14241	bis(2-Ethylhexyl) phthalate	117-81-7	N.D.	5.1	1
14241	Hexachlorobutadiene	87-68-3	N.D.	1.0	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	15	1
14241	Hexachloroethane	67-72-1	N.D.	5.1	1
14241	Isophorone	78-59-1	N.D.	1.0	1
14241	2-Methylphenol	95-48-7	N.D.	1.0	1
14241	4-Methylphenol	106-44-5	N.D.	1.0	1

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/l	ug/l	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
14241	2-Nitroaniline	88-74-4	N.D.	1.0	1
14241	3-Nitroaniline	99-09-2	N.D.	1.0	1
14241	4-Nitroaniline	100-01-6	N.D.	1.0	1
14241	Nitrobenzene	98-95-3	N.D.	1.0	1
14241	2-Nitrophenol	88-75-5	N.D.	1.0	1
14241	4-Nitrophenol	100-02-7	N.D.	31	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	1.0	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	1.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
14241	Di-n-octylphthalate	117-84-0	N.D.	5.1	1
14241	Pentachlorophenol	87-86-5	N.D.	5.1	1
14241	Phenol	108-95-2	N.D.	1.0	1
14241	Pyridine	110-86-1	N.D.	5.1	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	1.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	1.0	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	1.0	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	1.0	1

The surrogate QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

GC/MS	Semivolatiles	SW-846 8270D SIM Modified	ug/l	ug/l	
10262	Acenaphthene	83-32-9	N.D.	0.05	1
10262	Acenaphthylene	208-96-8	0.03 J	0.05	1
10262	Anthracene	120-12-7	N.D.	0.05	1
10262	Benzo(a)anthracene	56-55-3	N.D.	0.05	1
10262	Benzo(a)pyrene	50-32-8	N.D.	0.05	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.	0.05	1
10262	Benzo(e)pyrene	192-97-2	N.D.	0.05	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.	0.05	1
10262	Benzo(k)fluoranthene	n.a.	N.D.	0.05	1
10262	C1-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C1-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C1-Fluorenes	n.a.	N.D.	0.05	1
10262	C1-Naphthalenes	n.a.	N.D.	0.05	1
10262	C1-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C2-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C2-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D SIM Modified</b>	<b>ug/l</b>	<b>ug/l</b>	
10262	C2-Fluorenes	n.a.	N.D.	0.05	1
10262	C2-Naphthalenes	n.a.	N.D.	0.05	1
10262	C2-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C3-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C3-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C3-Fluorenes	n.a.	N.D.	0.05	1
10262	C3-Naphthalenes	n.a.	N.D.	0.05	1
10262	C3-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C4-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C4-Naphthalenes	n.a.	N.D.	0.05	1
10262	C4-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	Chrysene	218-01-9	N.D.	0.05	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.	0.05	1
10262	Fluoranthene	206-44-0	N.D.	0.05	1
10262	Fluorene	86-73-7	N.D.	0.05	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.05	1
10262	1-Methylnaphthalene	90-12-0	N.D.	0.05	1
10262	2-Methylnaphthalene	91-57-6	N.D.	0.05	1
10262	Naphthalene	91-20-3	N.D.	0.05	1
10262	Perylene	198-55-0	N.D.	0.05	1
10262	Phenanthrene	85-01-8	N.D.	0.05	1
10262	Pyrene	129-00-0	N.D.	0.05	1
<b>GC Volatiles</b>	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01635	TPH-GRO water C6-C10	n.a.	N.D.	50	1
<b>Herbicides</b>	<b>SW-846 8151A</b>		<b>ug/l</b>	<b>ug/l</b>	
10407	2,4-D	94-75-7	N.D.	0.50	1
10407	2,4-DB	94-82-6	N.D.	0.99	1
10407	2,4,5-T	93-76-5	N.D.	0.050	1
10407	2,4,5-TP	93-72-1	N.D.	0.050	1
<b>Pesticides/PCBs</b>	<b>SW-846 8082</b>		<b>ug/l</b>	<b>ug/l</b>	
12013	PCB-1016	12674-11-2	N.D.	0.010	1
12013	PCB-1221	11104-28-2	N.D.	0.010	1
12013	PCB-1232	11141-16-5	N.D.	0.010	1
12013	PCB-1242	53469-21-9	N.D.	0.010	1
12013	PCB-1248	12672-29-6	N.D.	0.010	1
12013	PCB-1254	11097-69-1	N.D.	0.010	1
12013	PCB-1260	11096-82-5	N.D.	0.010	1
12013	PCB-1262	37324-23-5	N.D.	0.010	1
12013	PCB-1268	11100-14-4	N.D.	0.010	1
<b>GC Petroleum Hydrocarbons</b>	<b>SW-846 8015B modified</b>		<b>ug/l</b>	<b>ug/l</b>	
11554	n-Decane	124-18-5	N.D.	1.0	1
11554	n-Docosane	629-97-0	N.D.	1.0	1

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC Petroleum</b>		<b>SW-846 8015B modified</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons</b>					
11554	n-Dodecane	112-40-3	N.D.	1.0	1
11554	n-Dotriacontane	544-85-4	N.D.	1.0	1
11554	n-Eicosane	112-95-8	N.D.	1.0	1
11554	n-Heneicosane	629-94-7	N.D.	1.0	1
11554	n-Hentriacontane	630-04-6	N.D.	1.0	1
11554	n-Heptacosane	593-49-7	N.D.	1.0	1
11554	n-Heptadecane	629-78-7	N.D.	1.0	1
11554	n-Heptatriacontane	7194-84-5	N.D.	1.0	1
11554	n-Hexacosane	630-01-3	N.D.	1.0	1
11554	n-Hexadecane	544-76-3	N.D.	1.0	1
11554	n-Hexatriacontane	630-06-8	N.D.	1.0	1
11554	n-Nonacosane	630-03-5	N.D.	1.0	1
11554	n-Nonadecane	629-92-5	N.D.	1.0	1
11554	n-Nonane	111-84-2	N.D.	1.0	1
11554	n-Nonatriacontane	7194-86-7	N.D.	1.0	1
11554	n-Octacosane	630-02-4	N.D.	1.0	1
11554	n-Octadecane	593-45-3	N.D.	1.0	1
11554	n-Octatriacontane	7194-85-6	N.D.	1.0	1
11554	n-Pentacosane	629-99-2	N.D.	1.0	1
11554	n-Pentadecane	629-62-9	N.D.	1.0	1
11554	n-Pentatriacontane	630-07-9	N.D.	1.0	1
11554	Phytane	638-36-8	N.D.	1.0	1
11554	Pristane	1921-70-6	N.D.	1.0	1
11554	n-Tetracontane	4181-95-7	N.D.	1.0	1
11554	n-Tetracosane	646-31-1	N.D.	1.0	1
11554	n-Tetradecane	629-59-4	0.81 J	1.0	1
11554	n-Tetratriacontane	14167-59-0	N.D.	1.0	1
11554	Total TPH (C9-C40)	n.a.	N.D.	100	1
11554	n-Triacontane	638-68-6	N.D.	1.0	1
11554	n-Tricosane	638-67-5	N.D.	1.0	1
11554	n-Tridecane	629-50-5	N.D.	1.0	1
11554	n-Tritriacontane	630-05-7	N.D.	1.0	1
11554	n-Undecane	1120-21-4	N.D.	1.0	1

The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary.

Some individual alkane target analytes in the Laboratory Control Spikes are outside the project QC limits as noted on the QC summary. The recovery when calculated as total SHC is within the limits at 61% (LCS) and 79% (LCSD).

Target analytes were detected in the method blank associated with the sample as noted on the QC Summary.

Sufficient sample was not available to perform a second trial.

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Dioxins/Furans</b>		<b>EPA 1613B October 1994</b>	<b>pg/l</b>	<b>pg/l</b>	
10915	2378-TCDD	1746-01-6	N.D.	1.99	1
10915	12378-PeCDD	40321-76-4	0.220 JQ	9.95	1
10915	123478-HxCDD	39227-28-6	0.279 JQ	9.95	1
10915	123678-HxCDD	57653-85-7	0.289 JQ	9.95	1
10915	123789-HxCDD	19408-74-3	0.310 JQ	9.95	1
10915	1234678-HpCDD	35822-46-9	0.706 JBQ	9.95	1
10915	OCDD	3268-87-9	1.72 JBQ	19.9	1
10915	2378-TCDF	51207-31-9	N.D.	1.99	1
10915	12378-PeCDF	57117-41-6	0.484 JBQ	9.95	1
10915	23478-PeCDF	57117-31-4	0.285 JBQ	9.95	1
10915	123478-HxCDF	70648-26-9	0.187 JB	9.95	1
10915	123678-HxCDF	57117-44-9	0.356 JBQ	9.95	1
10915	123789-HxCDF	72918-21-9	0.820 JBQ	9.95	1
10915	234678-HxCDF	60851-34-5	0.384 JQ	9.95	1
10915	1234678-HpCDF	67562-39-4	0.502 JBQ	9.95	1
10915	1234789-HpCDF	55673-89-7	0.521 JB	9.95	1
10915	OCDF	39001-02-0	0.958 JQ	19.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	100	25 - 164
13C12-12378-PeCDD	102	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	90	24 - 169
13C12-12378-PeCDF	123	24 - 185
13C12-23478-PeCDF	101	21 - 178
13C12-123478-HxCDF	91	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	117	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	88	26 - 138
13C12-OCDF	82	17 - 157

**Dioxins/Furans Data Qualifiers:**

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Estimated Detection Limit and Minimum Reporting Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

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CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
F	Interference is present				
S	Saturation of detection signal				

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Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>	<b>PCB</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB1	2051-60-7	N.D.	19.7	1
13708	PCB10	33146-45-1	N.D.	49.2	1
13708	PCB103	60145-21-3	N.D.	49.2	1
13708	PCB104	56558-16-8	N.D.	49.2	1
13708	PCB105	32598-14-4	48.7 JB	49.2	1
13708	PCB106	70424-69-0	N.D.	49.2	1
13708	PCB107	70424-68-9	N.D.	49.2	1
13708	PCB108+124	n.a.	N.D.	98.4	1
13708	PCB11	2050-67-1	33.6 JB	98.4	1
13708	PCB110+115	n.a.	181 B	98.4	1
13708	PCB111	39635-32-0	N.D.	49.2	1
13708	PCB112	74472-36-9	N.D.	49.2	1
13708	PCB114	74472-37-0	N.D.	49.2	1
13708	PCB118	31508-00-6	N.D.	98.4	1
13708	PCB12+13	n.a.	N.D.	49.2	1
13708	PCB120	68194-12-7	N.D.	49.2	1
13708	PCB121	56558-18-0	N.D.	49.2	1
13708	PCB122	76842-07-4	N.D.	49.2	1
13708	PCB123	65510-44-3	N.D.	49.2	1
13708	PCB126	57465-28-8	N.D.	49.2	1
13708	PCB127	39635-33-1	N.D.	49.2	1
13708	PCB128+166	n.a.	29.6 J	98.4	1
13708	PCB129+138+163	n.a.	127 JB	197	1
13708	PCB130	52663-66-8	N.D.	49.2	1
13708	PCB131	61798-70-7	N.D.	49.2	1
13708	PCB132	38380-05-1	47.7 JB	49.2	1
13708	PCB133	35694-04-3	N.D.	49.2	1
13708	PCB134	52704-70-8	N.D.	98.4	1
13708	PCB135+151	n.a.	N.D.	98.4	1
13708	PCB136	38411-22-2	N.D.	49.2	1
13708	PCB137	35694-06-5	N.D.	49.2	1
13708	PCB139+140	n.a.	N.D.	98.4	1
13708	PCB14	34883-41-5	N.D.	19.7	1
13708	PCB141	52712-04-6	N.D.	49.2	1
13708	PCB142	41411-61-4	N.D.	49.2	1
13708	PCB143	68194-15-0	N.D.	98.4	1
13708	PCB144	68194-14-9	N.D.	49.2	1
13708	PCB145	74472-40-5	N.D.	49.2	1
13708	PCB146	51908-16-8	N.D.	49.2	1
13708	PCB147+149	n.a.	96.1 JB	98.4	1
13708	PCB148	74472-41-6	N.D.	49.2	1
13708	PCB15	2050-68-2	N.D.	49.2	1
13708	PCB150	68194-08-1	N.D.	49.2	1
13708	PCB152	68194-09-2	N.D.	49.2	1
13708	PCB153+168	n.a.	91.1 JB	98.4	1
13708	PCB154	60145-22-4	N.D.	98.4	1
13708	PCB155	33979-03-2	N.D.	49.2	1
13708	PCB156+157	n.a.	N.D.	98.4	1
13708	PCB158	74472-42-7	20.7 J	49.2	1

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>		<b>EPA 1668A PCB Congeners</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB159	39635-35-3	N.D.	49.2	1
13708	PCB16	38444-78-9	N.D.	19.7	1
13708	PCB160	41411-62-5	N.D.	197	1
13708	PCB161	74472-43-8	N.D.	49.2	1
13708	PCB162	39635-34-2	N.D.	49.2	1
13708	PCB164	74472-45-0	N.D.	49.2	1
13708	PCB165	74472-46-1	N.D.	49.2	1
13708	PCB167	52663-72-6	N.D.	49.2	1
13708	PCB169	32774-16-6	N.D.	49.2	1
13708	PCB17	37680-66-3	N.D.	19.7	1
13708	PCB170	35065-30-6	N.D.	49.2	1
13708	PCB171+173	n.a.	N.D.	98.4	1
13708	PCB172	52663-74-8	N.D.	49.2	1
13708	PCB174	38411-25-5	N.D.	49.2	1
13708	PCB175	40186-70-7	N.D.	49.2	1
13708	PCB176	52663-65-7	N.D.	49.2	1
13708	PCB177	52663-70-4	N.D.	49.2	1
13708	PCB178	52663-67-9	N.D.	49.2	1
13708	PCB179	52663-64-6	N.D.	49.2	1
13708	PCB18+30	n.a.	N.D.	49.2	1
13708	PCB180+193	n.a.	N.D.	98.4	1
13708	PCB181	74472-47-2	N.D.	49.2	1
13708	PCB182	60145-23-5	N.D.	49.2	1
13708	PCB183+185	n.a.	N.D.	98.4	1
13708	PCB184	74472-48-3	N.D.	49.2	1
13708	PCB186	74472-49-4	N.D.	49.2	1
13708	PCB187	52663-68-0	N.D.	49.2	1
13708	PCB188	74487-85-7	N.D.	49.2	1
13708	PCB189	39635-31-9	N.D.	49.2	1
13708	PCB19	38444-73-4	N.D.	19.7	1
13708	PCB190	41411-64-7	N.D.	49.2	1
13708	PCB191	74472-50-7	N.D.	49.2	1
13708	PCB192	74472-51-8	N.D.	49.2	1
13708	PCB194	35694-08-7	N.D.	49.2	1
13708	PCB195	52663-78-2	N.D.	49.2	1
13708	PCB196	42740-50-1	N.D.	49.2	1
13708	PCB197+200	n.a.	N.D.	98.4	1
13708	PCB198+199	n.a.	N.D.	98.4	1
13708	PCB2	2051-61-8	N.D.	19.7	1
13708	PCB20+28	n.a.	37.5 JB	49.2	1
13708	PCB201	40186-71-8	N.D.	49.2	1
13708	PCB202	2136-99-4	N.D.	98.4	1
13708	PCB203	52663-76-0	N.D.	49.2	1
13708	PCB204	74472-52-9	N.D.	49.2	1
13708	PCB205	74472-53-0	N.D.	49.2	1
13708	PCB206	40186-72-9	N.D.	49.2	1
13708	PCB207	52663-79-3	N.D.	49.2	1
13708	PCB208	52663-77-1	N.D.	49.2	1
13708	PCB209	2051-24-3	26.7 JB	49.2	1

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>		<b>pg/l</b>	<b>pg/l</b>	
13708	PCB21+33	n.a.	23.7	49.2	1
13708	PCB22	38444-85-8	14.7	19.7	1
13708	PCB23	55720-44-0	N.D.	19.7	1
13708	PCB24	55702-45-9	N.D.	19.7	1
13708	PCB25	55712-37-3	N.D.	19.7	1
13708	PCB26+29	n.a.	N.D.	49.2	1
13708	PCB27	38444-76-7	N.D.	19.7	1
13708	PCB3	2051-62-9	N.D.	49.2	1
13708	PCB31	16606-02-3	N.D.	49.2	1
13708	PCB32	38444-77-8	N.D.	19.7	1
13708	PCB34	37680-68-5	N.D.	19.7	1
13708	PCB35	37680-69-6	N.D.	19.7	1
13708	PCB36	38444-87-0	N.D.	19.7	1
13708	PCB37	38444-90-5	N.D.	19.7	1
13708	PCB38	53555-66-1	N.D.	19.7	1
13708	PCB39	38444-88-1	N.D.	19.7	1
13708	PCB4	13029-08-8	N.D.	49.2	1
13708	PCB40+71	n.a.	N.D.	98.4	1
13708	PCB41	52663-59-9	N.D.	98.4	1
13708	PCB42	36559-22-5	N.D.	49.2	1
13708	PCB43	70362-46-8	N.D.	49.2	1
13708	PCB44+47+65	n.a.	N.D.	98.4	1
13708	PCB45	70362-45-7	N.D.	49.2	1
13708	PCB46	41464-47-5	N.D.	19.7	1
13708	PCB48	70362-47-9	N.D.	49.2	1
13708	PCB49+69	n.a.	N.D.	98.4	1
13708	PCB5	16605-91-7	N.D.	19.7	1
13708	PCB50+53	n.a.	N.D.	98.4	1
13708	PCB51	68194-04-7	N.D.	49.2	1
13708	PCB52	35693-99-3	52.3	49.2	1
13708	PCB54	15968-05-5	N.D.	49.2	1
13708	PCB55	74338-24-2	N.D.	49.2	1
13708	PCB56	41464-43-1	16.8	49.2	1
13708	PCB57	70424-67-8	N.D.	49.2	1
13708	PCB58	41464-49-7	N.D.	49.2	1
13708	PCB59+62+75	n.a.	N.D.	98.4	1
13708	PCB6	25569-80-6	N.D.	19.7	1
13708	PCB60	33025-41-1	N.D.	49.2	1
13708	PCB61+70+74+76	n.a.	105	197	1
13708	PCB63	74472-34-7	N.D.	49.2	1
13708	PCB64	52663-58-8	19.2	49.2	1
13708	PCB66	32598-10-0	37.9	49.2	1
13708	PCB67	73575-53-8	N.D.	49.2	1
13708	PCB68	73575-52-7	N.D.	49.2	1
13708	PCB7	33284-50-3	N.D.	19.7	1
13708	PCB72	41464-42-0	N.D.	49.2	1
13708	PCB73	74338-23-1	N.D.	49.2	1
13708	PCB77	32598-13-3	N.D.	49.2	1
13708	PCB78	70362-49-1	N.D.	49.2	1

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>		<b>pg/l</b>	<b>pg/l</b>	
13708	PCB79	41464-48-6	N.D.	49.2	1
13708	PCB8	34883-43-7	N.D.	49.2	1
13708	PCB80	33284-52-5	N.D.	49.2	1
13708	PCB81	70362-50-4	N.D.	49.2	1
13708	PCB82	52663-62-4	N.D.	49.2	1
13708	PCB83	60145-20-2	N.D.	98.4	1
13708	PCB84	52663-60-2	36.8 B	19.7	1
13708	PCB85+116+117	n.a.	N.D.	98.4	1
13708	PCB86+87+97+109+119+125	n.a.	112 JB	197	1
13708	PCB88	55215-17-3	N.D.	49.2	1
13708	PCB89	73575-57-2	N.D.	49.2	1
13708	PCB9	34883-39-1	N.D.	19.7	1
13708	PCB90+101+113	n.a.	139 JB	197	1
13708	PCB91	68194-05-8	N.D.	49.2	1
13708	PCB92	52663-61-3	29.9 J	49.2	1
13708	PCB93+100	n.a.	N.D.	197	1
13708	PCB94	73575-55-0	N.D.	49.2	1
13708	PCB95	38379-99-6	96.8 JB	197	1
13708	PCB96	73575-54-9	N.D.	49.2	1
13708	PCB98+102	n.a.	N.D.	197	1
13708	PCB99	38380-01-7	N.D.	98.4	1

The summation PCBs reported cannot be resolved under the chromatographic conditions used for sample analysis. The concentration(s) reported is the combined total of the PCBs and would be the maximum possible concentration for any individual PCB of interest.

Labeled Compounds	%Rec	Windows
13C12-PCB1	36	15 - 150
13C12-PCB3	37	15 - 150
13C12-PCB4	43	25 - 150
13C12-PCB15	43	25 - 150
13C12-PCB19	42	25 - 150
13C12-PCB28	51	30 - 135
13C12-PCB37	58	25 - 150
13C12-PCB54	55	25 - 150
13C12-PCB77	65	25 - 150
13C12-PCB81	67	25 - 150
13C12-PCB104	59	25 - 150
13C12-PCB105	67	25 - 150
13C12-PCB111	67	30 - 135
13C12-PCB114	68	25 - 150
13C12-PCB118	66	25 - 150
13C12-PCB123	66	25 - 150
13C12-PCB126	65	25 - 150
13C12-PCB155	81	25 - 150
13C12-PCB167	76	25 - 150
13C12-PCB169	77	25 - 150

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Labeled Compounds</b>					
	<b>%Rec</b>	<b>Windows</b>			
	13C12-PCB178	74	30 - 135		
	13C12-PCB188	66	25 - 150		
	13C12-PCB189	77	25 - 150		
	13C12-PCB202	68	25 - 150		
	13C12-PCB205	72	25 - 150		
	13C12-PCB206	81	25 - 150		
	13C12-PCB208	73	25 - 150		
	13C12-PCB209	84	25 - 150		
	13C12-PCB156+157	79	25 - 150		
	13C12-PCB8	41	25 - 150		
	13C12-PCB32	44	25 - 150		
	13C12-PCB31	50	25 - 150		
	13C12-PCB47	53	25 - 150		
	13C12-PCB95	58	25 - 150		
	13C12-PCB70	59	25 - 150		
	13C12-PCB60	65	25 - 150		
	13C12-PCB85	61	25 - 150		
	13C12-PCB133	64	25 - 150		
	13C12-PCB141	68	25 - 150		
	13C12-PCB127	66	25 - 150		
	13C12-PCB128	66	25 - 150		
	13C12-PCB162	77	25 - 150		
	13C12-PCB180	66	25 - 150		

**Dioxins/Furans Data Qualifiers:**

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Method Detection Limit and Minimum Reporting Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present
- S* Saturation of detection signal

Sample Description: NB3151FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8638002  
LL Group # 1719662  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/12/2016 16:00

Tierra Solutions, Inc.

Submitted: 10/12/2016 20:25

Reported: 11/16/2016 16:55

N7004 SDG#: NB370-04FB

### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	VOCs 8260B	SW-846 8260B 25mL purge	1	G162993AA	10/25/2016 14:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G162993AA	10/25/2016 14:31	Jason M Long	1
14241	SVOAs 8270D MINI	SW-846 8270D	1	16291WAJ026	10/20/2016 02:40	William H Saadeh	1
10262	PAH, Alkyl PAH Water 8270D SIM	SW-846 8270D SIM Modified	1	16289WAH026	10/19/2016 10:07	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	16289WAH026	10/17/2016 09:00	David S Schrum	1
11010	8270D BNA Extraction	SW-846 3510C	1	16291WAJ026	10/18/2016 08:30	Jessica M Cook	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	16293C20A	10/19/2016 14:14	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	16293C20A	10/19/2016 14:14	Brett W Kenyon	1
10407	Herbicides in Water	SW-846 8151A	1	162930004A	10/25/2016 12:12	Richard A Shober	1
12013	PCBs in Water - Low Level	SW-846 8082	1	162930007A	10/20/2016 19:34	Jessica L Miller	1
12026	PCB Waters Ext. - Low Level	SW-846 3510C	1	162930007A	10/19/2016 23:55	Denise L Trimby	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	162930004A	10/19/2016 16:00	Ryan J Dowdy	1
11554	TEPH C9-C40 incl. Totals	SW-846 8015B modified	1	162930014A	10/27/2016 23:39	Heather E Williams	1
11596	Water Ext. for SHC	SW-846 3510C	1	162930014A	10/15/2016 23:50	Denise L Trimby	1
10915	Dioxins/Furans in Water - 1613	EPA 1613B October 1994	1	16287004	10/15/2016 00:49	Michael A Ziegler	1
13708	PCB Congeners 1668A Water	EPA 1668A PCB Congeners	1	16287006	10/14/2016 15:42	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	16287004	10/13/2016 14:25	Alex L Barton	1
13235	PCB Congeners in Water-SepF	EPA 1668A PCB Congeners	1	16287006	10/13/2016 14:25	Alex L Barton	1



Tierra Solutions, Inc  
2 Tower Center Boulevard, 10th Floor  
East Brunswick NJ, 08816

Project: Mercury  
Project Number: Newark Bay Phase III Sampling  
Project Manager: Carlie T. Thompson

Reported:  
12-Nov-16 11:26

**NB3151FB**  
**1610432-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-013 Methyl Hg Distillation for Water**

Methyl Mercury (as Mercury)	ND	0.028	0.055	ng/L	1.25	F611222	02-Nov-16	6K04003	03-Nov-16	EPA 1630/FGS-070	U
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**Sample Preparation: EPA 1631E BrCl Oxidation**

Mercury	ND	0.08	0.50	ng/L	1	F611211	14-Oct-16	6K03009	02-Nov-16	EPA 1631E	U
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Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Sample ID: NB3151FB**

**EPA Method 1699**

Client Data		Sample Data		Laboratory Data			
Name:	Tierra Solutions, Inc.	Matrix:	Water	Lab Sample:	1601298-02	Date Received:	13-Oct-2016 8:54
Project:	Newark Bay SQT Sampling Phase III	Sample Size:	0.975 L	QC Batch:	B6J0070	Date Extracted:	14-Oct-2016 8:21
Date Collected:	12-Oct-2016 16:00			Date Analyzed:	20-Oct-16 22:55	Column:	ZB-50

Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
Hexachlorobenzene	12.3			J, B	IS 13C6-Hexachlorobenzene	49.0	5 - 120	
alpha-BHC	3.83			J	IS 13C6-alpha-BHC	67.2	32 - 130	
Lindane (gamma-BHC)	5.74			J	IS 13C6-Lindane (gamma-BHC)	81.7	11 - 120	
beta-BHC	ND	1.99			IS 13C6-beta-BHC	81.4	32 - 130	
delta-BHC	ND	1.39			IS 13C6-delta-BHC	91.6	36 - 137	
Heptachlor	ND	1.16			IS 13C10-Heptachlor	32.2	5 - 120	
Aldrin	ND	4.12			IS 13C12-Aldrin	34.2	5 - 120	
Oxychlordane	ND	11.7			IS 13C10-Oxychlordane	40.7	23 - 135	
cis-Heptachlor Epoxide	ND	8.81			IS 13C10-cis-Heptachlor Epoxide	43.7	27 - 137	
trans-Heptachlor Epoxide	ND	22.9			IS 13C10-trans-Chlordane (gamma)	37.2	21 - 132	
trans-Chlordane (gamma)	ND	10.9			IS 13C10-trans-Nonachlor	40.0	14 - 136	
trans-Nonachlor	ND	10.5			IS 13C9-Endosulfan I (alpha)	42.2	15 - 148	
cis-Chlordane (alpha)	ND	9.88			IS 13C12-2,4'-DDE	53.6	47 - 160	
Endosulfan I (alpha)	ND	13.5			IS 13C12-4,4'-DDE	53.0	47 - 160	
2,4'-DDE	ND	2.66			IS 13C12-Dieldrin	83.5	40 - 151	
4,4'-DDE	6.99			J	IS 13C12-Endrin	59.3	35 - 155	
Dieldrin	ND		5.88		IS 13C10-cis-Nonachlor	85.2	36 - 139	
Endrin	ND	8.28			IS 13C9-Endosulfan II (beta)	74.9	5 - 122	
cis-Nonachlor	ND	5.99			IS 13C12-2,4'-DDD	116	5 - 199	
Endosulfan II (beta)	ND	10.7			IS 13C12-2,4'-DDT	119	5 - 199	
2,4'-DDD	ND	1.77			IS 13C12-4,4'-DDD	115	5 - 120	
2,4'-DDT	ND	2.91			IS 13C12-4,4'-DDT	116	5 - 120	
4,4'-DDD	ND		3.38		IS 13C9-Endosulfan Sulfate	53.4	15 - 148	
4,4'-DDT	9.82			J	IS 13C12-Methoxychlor	100	5 - 120	
Endosulfan Sulfate	ND	7.24			IS 13C10-Mirex	98.6	5 - 120	
4,4'-Methoxychlor	ND	2.04			IS 13C12-Endrin Aldehyde	65.5	15 - 148	
Mirex	ND	0.623			IS 13C12-Endrin Ketone	74.4	15 - 148	
Endrin Aldehyde	ND	5.34						
Endrin Ketone	ND	5.70						

DL - Sample specific estimated detection limit

LCL-UCL - Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8656999  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7101 SDG#: NB371-01FB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>Metals</b>					
		<b>SW-846 6010C</b>	<b>mg/l</b>	<b>mg/l</b>	
07070	Titanium in Water	7440-32-6	N.D.	0.0013	1
		<b>SW-846 6020</b>	<b>mg/l</b>	<b>mg/l</b>	
06023	Aluminum	7429-90-5	N.D.	0.0231	1
06024	Antimony	7440-36-0	N.D.	0.00048	1
06025	Arsenic	7440-38-2	N.D.	0.00068	1
06026	Barium	7440-39-3	N.D.	0.00096	1
06027	Beryllium	7440-41-7	N.D.	0.00011	1
06028	Cadmium	7440-43-9	N.D.	0.00019	1
06029	Calcium	7440-70-2	N.D.	0.0981	1
06031	Chromium	7440-47-3	N.D.	0.00059	1
06032	Cobalt	7440-48-4	N.D.	0.00020	1
06033	Copper	7440-50-8	N.D.	0.00052	1
06034	Iron	7439-89-6	N.D.	0.0337	1
06035	Lead	7439-92-1	N.D.	0.000090	1
06036	Magnesium	7439-95-4	N.D.	0.0117	1
06037	Manganese	7439-96-5	N.D.	0.00088	1
06039	Nickel	7440-02-0	N.D.	0.00085	1
06040	Potassium	7440-09-7	N.D.	0.0669	1
06041	Selenium	7782-49-2	N.D.	0.00044	1
06042	Silver	7440-22-4	N.D.	0.00012	1
06043	Sodium	7440-23-5	N.D.	0.0468	1
06045	Thallium	7440-28-0	N.D.	0.00016	1
06048	Vanadium	7440-62-2	N.D.	0.00020	1
06049	Zinc	7440-66-6	N.D.	0.0035	1
<b>Wet Chemistry</b>					
		<b>SW-846 9012A</b>	<b>mg/l</b>	<b>mg/l</b>	
08255	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
		<b>SW-846 9060A</b>	<b>mg/l</b>	<b>mg/l</b>	
00354	Total Organic Carbon (Quad)	n.a.	N.D.	0.50	1
	The reported result is the average of the following trials:				
	0	mg/l			
	0	mg/l			
	0	mg/l			
	0	mg/l			

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8656999  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7101 SDG#: NB371-01FB

### Sample Comments

State of New Jersey Lab Certification No. PA011  
The analysis for mercury and methyl mercury was subcontracted to another laboratory. See attached reports.

B (for Inorganic tests) = estimated value: The result is  $\geq$  the Method Detection Limit (MDL)  
and  $<$  the Limit of Quantitation (LOQ).  
Note: LOQ = PQL

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07070	Titanium in Water	SW-846 6010C	1	163090635008	11/08/2016 00:08	Matthew R Machtinger	1
06023	Aluminum	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06024	Antimony	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06025	Arsenic	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06026	Barium	SW-846 6020	1	163096050002D	11/09/2016 19:58	Patrick J Engle	1
06027	Beryllium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06028	Cadmium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06029	Calcium	SW-846 6020	1	163096050002B	11/09/2016 19:58	Patrick J Engle	1
06031	Chromium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06032	Cobalt	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06033	Copper	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06034	Iron	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06035	Lead	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06036	Magnesium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06037	Manganese	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06039	Nickel	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06040	Potassium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06041	Selenium	SW-846 6020	1	163096050002B	11/09/2016 19:58	Patrick J Engle	1
06042	Silver	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06043	Sodium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06045	Thallium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06048	Vanadium	SW-846 6020	1	163096050002A	11/09/2016 19:58	Patrick J Engle	1
06049	Zinc	SW-846 6020	1	163096050002A	11/10/2016 14:07	Patrick J Engle	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	163090635008	11/06/2016 07:49	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	163096050002	11/08/2016 12:51	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	16307117101B	11/02/2016 13:39	Dein K Bernot	1
00354	Total Organic Carbon (Quad)	SW-846 9060A	1	16300667601A	10/26/2016 21:05	Drew M Gerhart	1
08256	Cyanide Water Distillation	SW-846 9012A	1	16307117101B	11/02/2016 07:35	Nancy J Shoop	1

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>				
02898	1,2-Dichlorobenzene	95-50-1	N.D.	1.0	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	1.0	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D</b>	<b>ug/l</b>	<b>ug/l</b>	
14241	Acetophenone	98-86-2	N.D.	1.0	1
14241	Atrazine	1912-24-9	N.D.	5.2	1
14241	Benzaldehyde	100-52-7	N.D.	5.2	1
14241	Benziidine	92-87-5	N.D.	63	1
14241	Benzoic acid	65-85-0	N.D.	16	1
14241	1,1'-Biphenyl	92-52-4	N.D.	1.0	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	1.0	1
14241	Butylbenzylphthalate	85-68-7	N.D.	5.2	1
14241	Di-n-butylphthalate	84-74-2	N.D.	5.2	1
14241	Caprolactam	105-60-2	N.D.	16	1
14241	Carbazole	86-74-8	N.D.	1.0	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.0	1
14241	4-Chloroaniline	106-47-8	N.D.	4.2	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	1.0	1
14241	bis(2-Chloroethyl) ether	111-44-4	N.D.	1.0	1
14241	2-Chloronaphthalene	91-58-7	N.D.	1.0	1
14241	2-Chlorophenol	95-57-8	N.D.	1.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	1.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	1.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
14241	Dibenzofuran	132-64-9	N.D.	1.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	5.2	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.0	1
14241	Diethylphthalate	84-66-2	N.D.	5.2	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	1.0	1
14241	Dimethylphthalate	131-11-3	N.D.	5.2	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	16	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	31	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	5.2	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	1.0	1
14241	1,2-Diphenylhydrazine	122-66-7	N.D.	1.0	1
14241	bis(2-Ethylhexyl) phthalate	117-81-7	N.D.	5.2	1
14241	Hexachlorobutadiene	87-68-3	N.D.	1.0	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	16	1
14241	Hexachloroethane	67-72-1	N.D.	5.2	1
14241	Isophorone	78-59-1	N.D.	1.0	1
14241	2-Methylphenol	95-48-7	N.D.	1.0	1
14241	4-Methylphenol	106-44-5	N.D.	1.0	1

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D</b>	<b>ug/l</b>	<b>ug/l</b>	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
14241	2-Nitroaniline	88-74-4	N.D.	1.0	1
14241	3-Nitroaniline	99-09-2	N.D.	1.0	1
14241	4-Nitroaniline	100-01-6	N.D.	1.0	1
14241	Nitrobenzene	98-95-3	N.D.	1.0	1
14241	2-Nitrophenol	88-75-5	N.D.	1.0	1
14241	4-Nitrophenol	100-02-7	N.D.	31	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	1.0	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	1.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
14241	Di-n-octylphthalate	117-84-0	N.D.	5.2	1
14241	Pentachlorophenol	87-86-5	N.D.	5.2	1
14241	Phenol	108-95-2	N.D.	1.0	1
14241	Pyridine	110-86-1	N.D.	5.2	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	1.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	1.0	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	1.0	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	1.0	1
	The surrogate QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.				
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D SIM Modified</b>	<b>ug/l</b>	<b>ug/l</b>	
10262	Acenaphthene	83-32-9	N.D.	0.05	1
10262	Acenaphthylene	208-96-8	N.D.	0.05	1
10262	Anthracene	120-12-7	N.D.	0.05	1
10262	Benzo(a)anthracene	56-55-3	N.D.	0.05	1
10262	Benzo(a)pyrene	50-32-8	N.D.	0.05	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.	0.05	1
10262	Benzo(e)pyrene	192-97-2	N.D.	0.05	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.	0.05	1
10262	Benzo(k)fluoranthene	n.a.	N.D.	0.05	1
10262	C1-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C1-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C1-Fluorenes	n.a.	N.D.	0.05	1
10262	C1-Naphthalenes	n.a.	N.D.	0.05	1
10262	C1-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C2-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C2-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C2-Fluorenes	n.a.	N.D.	0.05	1
10262	C2-Naphthalenes	n.a.	N.D.	0.05	1
10262	C2-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C3-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C3-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C3-Fluorenes	n.a.	N.D.	0.05	1
10262	C3-Naphthalenes	n.a.	N.D.	0.05	1

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270D SIM Modified ug/l</b>					
10262	C3-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C4-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C4-Naphthalenes	n.a.	N.D.	0.05	1
10262	C4-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	Chrysene	218-01-9	N.D.	0.05	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.	0.05	1
10262	Fluoranthene	206-44-0	N.D.	0.05	1
10262	Fluorene	86-73-7	N.D.	0.05	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.05	1
10262	1-Methylnaphthalene	90-12-0	N.D.	0.05	1
10262	2-Methylnaphthalene	91-57-6	N.D.	0.05	1
10262	Naphthalene	91-20-3	N.D.	0.05	1
10262	Perylene	198-55-0	N.D.	0.05	1
10262	Phenanthrene	85-01-8	N.D.	0.05	1
10262	Pyrene	129-00-0	N.D.	0.05	1
<b>GC Volatiles SW-846 8015B ug/l</b>					
01635	TPH-GRO water C6-C10	n.a.	N.D.	50	1
<b>Herbicides SW-846 8151A ug/l</b>					
10407	2,4-D	94-75-7	N.D.	0.49	1
10407	2,4-DB	94-82-6	N.D.	0.98	1
10407	2,4,5-T	93-76-5	N.D.	0.049	1
10407	2,4,5-TP	93-72-1	N.D.	0.049	1
<b>Pesticides/PCBs SW-846 8082 ug/l</b>					
12013	PCB-1016	12674-11-2	N.D.	0.0096	1
12013	PCB-1221	11104-28-2	N.D.	0.0096	1
12013	PCB-1232	11141-16-5	N.D.	0.0096	1
12013	PCB-1242	53469-21-9	N.D.	0.0096	1
12013	PCB-1248	12672-29-6	N.D.	0.0096	1
12013	PCB-1254	11097-69-1	N.D.	0.0096	1
12013	PCB-1260	11096-82-5	N.D.	0.0096	1
12013	PCB-1262	37324-23-5	N.D.	0.0096	1
12013	PCB-1268	11100-14-4	N.D.	0.0096	1
<b>GC Petroleum Hydrocarbons SW-846 8015B modified ug/l</b>					
11554	n-Decane	124-18-5	N.D.	1.0	1
11554	n-Docosane	629-97-0	N.D.	1.0	1
11554	n-Dodecane	112-40-3	N.D.	1.0	1
11554	n-Dotriacontane	544-85-4	N.D.	1.0	1
11554	n-Eicosane	112-95-8	N.D.	1.0	1
11554	n-Heneicosane	629-94-7	N.D.	1.0	1
11554	n-Hentriacontane	630-04-6	N.D.	1.0	1
11554	n-Heptacosane	593-49-7	N.D.	1.0	1
11554	n-Heptadecane	629-78-7	N.D.	1.0	1

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
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Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC Petroleum</b>			<b>SW-846 8015B modified ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons</b>					
11554	n-Heptatriacontane	7194-84-5	N.D.	1.0	1
11554	n-Hexacosane	630-01-3	N.D.	1.0	1
11554	n-Hexadecane	544-76-3	N.D.	1.0	1
11554	n-Hexatriacontane	630-06-8	N.D.	1.0	1
11554	n-Nonacosane	630-03-5	N.D.	1.0	1
11554	n-Nonadecane	629-92-5	N.D.	1.0	1
11554	n-Nonane	111-84-2	N.D.	1.0	1
11554	n-Nonatriacontane	7194-86-7	N.D.	1.0	1
11554	n-Octacosane	630-02-4	N.D.	1.0	1
11554	n-Octadecane	593-45-3	N.D.	1.0	1
11554	n-Octatriacontane	7194-85-6	N.D.	1.0	1
11554	n-Pentacosane	629-99-2	N.D.	1.0	1
11554	n-Pentadecane	629-62-9	N.D.	1.0	1
11554	n-Pentatriacontane	630-07-9	N.D.	1.0	1
11554	Phytane	638-36-8	N.D.	1.0	1
11554	Pristane	1921-70-6	N.D.	1.0	1
11554	n-Tetracontane	4181-95-7	N.D.	1.0	1
11554	n-Tetracosane	646-31-1	N.D.	1.0	1
11554	n-Tetradecane	629-59-4	N.D.	1.0	1
11554	n-Tetratriacontane	14167-59-0	N.D.	1.0	1
11554	Total TPH (C9-C40)	n.a.	N.D.	100	1
11554	n-Triacontane	638-68-6	N.D.	1.0	1
11554	n-Tricosane	638-67-5	N.D.	1.0	1
11554	n-Tridecane	629-50-5	N.D.	1.0	1
11554	n-Tritriacontane	630-05-7	N.D.	1.0	1
11554	n-Undecane	1120-21-4	N.D.	1.0	1

Sample Description: NB3153FB Grab Water  
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Project Name: Newark Bay Phase III Sediment Sampling

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Tierra Solutions, Inc.

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N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Dioxins/Furans</b>		<b>EPA 1613B October 1994</b>	<b>pg/l</b>	<b>pg/l</b>	
10915	2378-TCDD	1746-01-6	0.159 JQ	2.06	1
10915	12378-PeCDD	40321-76-4	0.204 JBQ	10.3	1
10915	123478-HxCDD	39227-28-6	0.105 JBQ	10.3	1
10915	123678-HxCDD	57653-85-7	0.149 JB	10.3	1
10915	123789-HxCDD	19408-74-3	0.198 JB	10.3	1
10915	1234678-HpCDD	35822-46-9	0.553 JBQ	10.3	1
10915	OCDD	3268-87-9	1.36 JB	20.6	1
10915	2378-TCDF	51207-31-9	N.D.	2.06	1
10915	12378-PeCDF	57117-41-6	0.380 JBQ	10.3	1
10915	23478-PeCDF	57117-31-4	0.270 JBQ	10.3	1
10915	123478-HxCDF	70648-26-9	0.270 JB	10.3	1
10915	123678-HxCDF	57117-44-9	0.257 JBQ	10.3	1
10915	123789-HxCDF	72918-21-9	0.650 JB	10.3	1
10915	234678-HxCDF	60851-34-5	0.0693 JBQ	10.3	1
10915	1234678-HpCDF	67562-39-4	0.642 JB	10.3	1
10915	1234789-HpCDF	55673-89-7	0.269 JBQ	10.3	1
10915	OCDF	39001-02-0	1.12 JBQ	20.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	95	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	60	17 - 157

**Dioxins/Furans Data Qualifiers:**

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Estimated Detection Limit and Minimum Reporting Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration

Sample Description: NB3153FB Grab Water  
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LL Sample # WW 8657000  
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Project Name: Newark Bay Phase III Sediment Sampling

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N7102 SDG#: NB371-02FB

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CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
F	Interference is present				
S	Saturation of detection signal				

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Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

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LL Group # 1723943  
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N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>	<b>PCB</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB1	2051-60-7	N.D.	20.6	1
13708	PCB10	33146-45-1	N.D.	51.5	1
13708	PCB103	60145-21-3	N.D.	51.5	1
13708	PCB104	56558-16-8	N.D.	51.5	1
13708	PCB105	32598-14-4	N.D.	51.5	1
13708	PCB106	70424-69-0	N.D.	51.5	1
13708	PCB107	70424-68-9	N.D.	51.5	1
13708	PCB108+124	n.a.	N.D.	103	1
13708	PCB11	2050-67-1	38.0 JB	103	1
13708	PCB110+115	n.a.	N.D.	103	1
13708	PCB111	39635-32-0	N.D.	51.5	1
13708	PCB112	74472-36-9	N.D.	51.5	1
13708	PCB114	74472-37-0	N.D.	51.5	1
13708	PCB118	31508-00-6	N.D.	103	1
13708	PCB12+13	n.a.	N.D.	51.5	1
13708	PCB120	68194-12-7	N.D.	51.5	1
13708	PCB121	56558-18-0	N.D.	51.5	1
13708	PCB122	76842-07-4	N.D.	51.5	1
13708	PCB123	65510-44-3	N.D.	51.5	1
13708	PCB126	57465-28-8	N.D.	51.5	1
13708	PCB127	39635-33-1	N.D.	51.5	1
13708	PCB128+166	n.a.	N.D.	103	1
13708	PCB129+138+163	n.a.	N.D.	206	1
13708	PCB130	52663-66-8	N.D.	51.5	1
13708	PCB131	61798-70-7	N.D.	51.5	1
13708	PCB132	38380-05-1	N.D.	51.5	1
13708	PCB133	35694-04-3	N.D.	51.5	1
13708	PCB134	52704-70-8	N.D.	103	1
13708	PCB135+151	n.a.	N.D.	103	1
13708	PCB136	38411-22-2	N.D.	51.5	1
13708	PCB137	35694-06-5	N.D.	51.5	1
13708	PCB139+140	n.a.	N.D.	103	1
13708	PCB14	34883-41-5	N.D.	20.6	1
13708	PCB141	52712-04-6	N.D.	51.5	1
13708	PCB142	41411-61-4	N.D.	51.5	1
13708	PCB143	68194-15-0	N.D.	103	1
13708	PCB144	68194-14-9	N.D.	51.5	1
13708	PCB145	74472-40-5	N.D.	51.5	1
13708	PCB146	51908-16-8	N.D.	51.5	1
13708	PCB147+149	n.a.	N.D.	103	1
13708	PCB148	74472-41-6	N.D.	51.5	1
13708	PCB15	2050-68-2	N.D.	51.5	1
13708	PCB150	68194-08-1	N.D.	51.5	1
13708	PCB152	68194-09-2	N.D.	51.5	1
13708	PCB153+168	n.a.	N.D.	103	1
13708	PCB154	60145-22-4	N.D.	103	1
13708	PCB155	33979-03-2	N.D.	51.5	1
13708	PCB156+157	n.a.	N.D.	103	1
13708	PCB158	74472-42-7	N.D.	51.5	1

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>		<b>EPA 1668A PCB Congeners</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB159	39635-35-3	N.D.	51.5	1
13708	PCB16	38444-78-9	N.D.	20.6	1
13708	PCB160	41411-62-5	N.D.	206	1
13708	PCB161	74472-43-8	N.D.	51.5	1
13708	PCB162	39635-34-2	N.D.	51.5	1
13708	PCB164	74472-45-0	N.D.	51.5	1
13708	PCB165	74472-46-1	N.D.	51.5	1
13708	PCB167	52663-72-6	N.D.	51.5	1
13708	PCB169	32774-16-6	N.D.	51.5	1
13708	PCB17	37680-66-3	N.D.	20.6	1
13708	PCB170	35065-30-6	N.D.	51.5	1
13708	PCB171+173	n.a.	N.D.	103	1
13708	PCB172	52663-74-8	N.D.	51.5	1
13708	PCB174	38411-25-5	N.D.	51.5	1
13708	PCB175	40186-70-7	N.D.	51.5	1
13708	PCB176	52663-65-7	N.D.	51.5	1
13708	PCB177	52663-70-4	N.D.	51.5	1
13708	PCB178	52663-67-9	N.D.	51.5	1
13708	PCB179	52663-64-6	N.D.	51.5	1
13708	PCB18+30	n.a.	N.D.	51.5	1
13708	PCB180+193	n.a.	N.D.	103	1
13708	PCB181	74472-47-2	N.D.	51.5	1
13708	PCB182	60145-23-5	N.D.	51.5	1
13708	PCB183+185	n.a.	N.D.	103	1
13708	PCB184	74472-48-3	N.D.	51.5	1
13708	PCB186	74472-49-4	N.D.	51.5	1
13708	PCB187	52663-68-0	N.D.	51.5	1
13708	PCB188	74487-85-7	N.D.	51.5	1
13708	PCB189	39635-31-9	N.D.	51.5	1
13708	PCB19	38444-73-4	N.D.	20.6	1
13708	PCB190	41411-64-7	N.D.	51.5	1
13708	PCB191	74472-50-7	N.D.	51.5	1
13708	PCB192	74472-51-8	N.D.	51.5	1
13708	PCB194	35694-08-7	N.D.	51.5	1
13708	PCB195	52663-78-2	N.D.	51.5	1
13708	PCB196	42740-50-1	N.D.	51.5	1
13708	PCB197+200	n.a.	N.D.	103	1
13708	PCB198+199	n.a.	N.D.	103	1
13708	PCB2	2051-61-8	N.D.	20.6	1
13708	PCB20+28	n.a.	N.D.	51.5	1
13708	PCB201	40186-71-8	N.D.	51.5	1
13708	PCB202	2136-99-4	N.D.	103	1
13708	PCB203	52663-76-0	N.D.	51.5	1
13708	PCB204	74472-52-9	N.D.	51.5	1
13708	PCB205	74472-53-0	N.D.	51.5	1
13708	PCB206	40186-72-9	N.D.	51.5	1
13708	PCB207	52663-79-3	N.D.	51.5	1
13708	PCB208	52663-77-1	N.D.	51.5	1
13708	PCB209	2051-24-3	N.D.	51.5	1

Sample Description: NB3153FB Grab Water  
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LL Sample # WW 8657000  
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Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>	<b>PCB</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB21+33	n.a.	N.D.	51.5	1
13708	PCB22	38444-85-8	N.D.	20.6	1
13708	PCB23	55720-44-0	N.D.	20.6	1
13708	PCB24	55702-45-9	N.D.	20.6	1
13708	PCB25	55712-37-3	N.D.	20.6	1
13708	PCB26+29	n.a.	N.D.	51.5	1
13708	PCB27	38444-76-7	N.D.	20.6	1
13708	PCB3	2051-62-9	N.D.	51.5	1
13708	PCB31	16606-02-3	N.D.	51.5	1
13708	PCB32	38444-77-8	N.D.	20.6	1
13708	PCB34	37680-68-5	N.D.	20.6	1
13708	PCB35	37680-69-6	N.D.	20.6	1
13708	PCB36	38444-87-0	N.D.	20.6	1
13708	PCB37	38444-90-5	N.D.	20.6	1
13708	PCB38	53555-66-1	N.D.	20.6	1
13708	PCB39	38444-88-1	N.D.	20.6	1
13708	PCB4	13029-08-8	N.D.	51.5	1
13708	PCB40+71	n.a.	N.D.	103	1
13708	PCB41	52663-59-9	N.D.	103	1
13708	PCB42	36559-22-5	N.D.	51.5	1
13708	PCB43	70362-46-8	N.D.	51.5	1
13708	PCB44+47+65	n.a.	N.D.	103	1
13708	PCB45	70362-45-7	N.D.	51.5	1
13708	PCB46	41464-47-5	N.D.	20.6	1
13708	PCB48	70362-47-9	N.D.	51.5	1
13708	PCB49+69	n.a.	N.D.	103	1
13708	PCB5	16605-91-7	N.D.	20.6	1
13708	PCB50+53	n.a.	N.D.	103	1
13708	PCB51	68194-04-7	N.D.	51.5	1
13708	PCB52	35693-99-3	N.D.	51.5	1
13708	PCB54	15968-05-5	N.D.	51.5	1
13708	PCB55	74338-24-2	N.D.	51.5	1
13708	PCB56	41464-43-1	N.D.	51.5	1
13708	PCB57	70424-67-8	N.D.	51.5	1
13708	PCB58	41464-49-7	N.D.	51.5	1
13708	PCB59+62+75	n.a.	N.D.	103	1
13708	PCB6	25569-80-6	N.D.	20.6	1
13708	PCB60	33025-41-1	N.D.	51.5	1
13708	PCB61+70+74+76	n.a.	N.D.	206	1
13708	PCB63	74472-34-7	N.D.	51.5	1
13708	PCB64	52663-58-8	N.D.	51.5	1
13708	PCB66	32598-10-0	N.D.	51.5	1
13708	PCB67	73575-53-8	N.D.	51.5	1
13708	PCB68	73575-52-7	N.D.	51.5	1
13708	PCB7	33284-50-3	N.D.	20.6	1
13708	PCB72	41464-42-0	N.D.	51.5	1
13708	PCB73	74338-23-1	N.D.	51.5	1
13708	PCB77	32598-13-3	N.D.	51.5	1
13708	PCB78	70362-49-1	N.D.	51.5	1

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>		<b>pg/l</b>	<b>pg/l</b>	
13708	PCB79	41464-48-6	N.D.	51.5	1
13708	PCB8	34883-43-7	N.D.	51.5	1
13708	PCB80	33284-52-5	N.D.	51.5	1
13708	PCB81	70362-50-4	N.D.	51.5	1
13708	PCB82	52663-62-4	N.D.	51.5	1
13708	PCB83	60145-20-2	N.D.	103	1
13708	PCB84	52663-60-2	N.D.	20.6	1
13708	PCB85+116+117	n.a.	N.D.	103	1
13708	PCB86+87+97+109+119+125	n.a.	N.D.	206	1
13708	PCB88	55215-17-3	N.D.	51.5	1
13708	PCB89	73575-57-2	N.D.	51.5	1
13708	PCB9	34883-39-1	N.D.	20.6	1
13708	PCB90+101+113	n.a.	N.D.	206	1
13708	PCB91	68194-05-8	N.D.	51.5	1
13708	PCB92	52663-61-3	N.D.	51.5	1
13708	PCB93+100	n.a.	N.D.	206	1
13708	PCB94	73575-55-0	N.D.	51.5	1
13708	PCB95	38379-99-6	N.D.	206	1
13708	PCB96	73575-54-9	N.D.	51.5	1
13708	PCB98+102	n.a.	N.D.	206	1
13708	PCB99	38380-01-7	N.D.	103	1

The summation PCBs reported cannot be resolved under the chromatographic conditions used for sample analysis. The concentration(s) reported is the combined total of the PCBs and would be the maximum possible concentration for any individual PCB of interest.

Labeled Compounds	%Rec	Windows
13C12-PCB1	42	15 - 150
13C12-PCB3	47	15 - 150
13C12-PCB4	49	25 - 150
13C12-PCB15	63	25 - 150
13C12-PCB19	59	25 - 150
13C12-PCB28	78	30 - 135
13C12-PCB37	89	25 - 150
13C12-PCB54	72	25 - 150
13C12-PCB77	97	25 - 150
13C12-PCB81	99	25 - 150
13C12-PCB104	77	25 - 150
13C12-PCB105	89	25 - 150
13C12-PCB111	85	30 - 135
13C12-PCB114	85	25 - 150
13C12-PCB118	87	25 - 150
13C12-PCB123	87	25 - 150
13C12-PCB126	89	25 - 150
13C12-PCB155	100	25 - 150
13C12-PCB167	97	25 - 150
13C12-PCB169	104	25 - 150

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Labeled Compounds</b>					
	<b>%Rec</b>	<b>Windows</b>			
13C12-PCB178	99	30 - 135			
13C12-PCB188	85	25 - 150			
13C12-PCB189	99	25 - 150			
13C12-PCB202	80	25 - 150			
13C12-PCB205	98	25 - 150			
13C12-PCB206	102	25 - 150			
13C12-PCB208	93	25 - 150			
13C12-PCB209	114	25 - 150			
13C12-PCB156+157	102	25 - 150			
13C12-PCB8	56	25 - 150			
13C12-PCB32	64	25 - 150			
13C12-PCB31	73	25 - 150			
13C12-PCB47	75	25 - 150			
13C12-PCB95	78	25 - 150			
13C12-PCB70	87	25 - 150			
13C12-PCB60	97	25 - 150			
13C12-PCB85	86	25 - 150			
13C12-PCB133	84	25 - 150			
13C12-PCB141	88	25 - 150			
13C12-PCB127	86	25 - 150			
13C12-PCB128	88	25 - 150			
13C12-PCB162	97	25 - 150			
13C12-PCB180	83	25 - 150			

**Dioxins/Furans Data Qualifiers:**

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Method Detection Limit and Minimum Reporting Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present
- S* Saturation of detection signal

Sample Description: NB3153FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8657000  
LL Group # 1723943  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 10/21/2016 14:50

Tierra Solutions, Inc.

Submitted: 10/21/2016 19:39

Reported: 11/29/2016 10:30

N7102 SDG#: NB371-02FB

### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	VOCs 8260B	SW-846 8260B 25mL purge	1	I163062AA	11/01/2016 11:38	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I163062AA	11/01/2016 11:38	Kerri E Legerlotz	1
14241	SVOAs 8270D MINI	SW-846 8270D	1	16299WAL026	10/27/2016 13:28	Holly B Ziegler	1
10262	PAH, Alkyl PAH Water 8270D SIM	SW-846 8270D SIM Modified	1	16300WAD026	10/27/2016 09:02	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	16300WAD026	10/26/2016 17:15	Ryan J Dowdy	1
11010	8270D BNA Extraction	SW-846 3510C	1	16299WAL026	10/26/2016 08:30	Kayla A Yuditsky	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	16308B20A	11/03/2016 17:49	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	16308B20A	11/03/2016 17:49	Brett W Kenyon	1
10407	Herbicides in Water	SW-846 8151A	1	163010013A	11/01/2016 23:39	Richard A Shober	1
12013	PCBs in Water - Low Level	SW-846 8082	1	163010024A	11/01/2016 21:25	Jessica L Miller	1
12026	PCB Waters Ext. - Low Level	SW-846 3510C	1	163010024A	10/27/2016 23:56	Denise L Trimby	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	163010013A	10/27/2016 17:00	Ryan J Dowdy	1
11554	TEPH C9-C40 incl. Totals	SW-846 8015B modified	1	162990026A	10/27/2016 16:22	Heather E Williams	1
11596	Water Ext. for SHC	SW-846 3510C	1	162990026A	10/26/2016 08:00	David S Schrum	1
10915	Dioxins/Furans in Water - 1613	EPA 1613B October 1994	1	16299005	10/27/2016 00:26	Michael A Ziegler	1
13708	PCB Congeners 1668A Water	EPA 1668A PCB Congeners	1	16300005	10/27/2016 13:50	Michael A Ziegler	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	16299005	10/25/2016 14:25	Alex L Barton	1
13235	PCB Congeners in Water-SepF	EPA 1668A PCB Congeners	1	16300005	10/26/2016 12:30	Alex L Barton	1



Tierra Solutions, Inc 2 Tower Center Boulevard, 10th Floor East Brunswick NJ, 08816	Project: Mercury Project Number: NB371 Project Manager: Carlie T. Thompson	<b>Reported:</b> 28-Nov-16 12:57
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**NB3153FB**  
**1610740-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-013 Methyl Hg Distillation for Water**

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F611388	17-Nov-16	6K21024	18-Nov-16	EPA 1630/FGS-070	U
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**Sample Preparation: EPA 1631E BrCl Oxidation**

Mercury	ND	0.08	0.50	ng/L	1	F611356	25-Oct-16	6K16012	15-Nov-16	EPA 1631E	U
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Eurofins Frontier Global Sciences, Inc.

*The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Amy Goodall, Project Manager

**Sample ID: NB3153FB**

**EPA Method 1699**

Client Data		Sample Data		Laboratory Data			
Name:	Tierra Solutions, Inc.	Matrix:	Water	Lab Sample:	1601349-01	Date Received:	25-Oct-2016 9:00
Project:	Newark Bay Sampling Phase III	Sample Size:	0.938 L	QC Batch:	B6J0176	Date Extracted:	28-Oct-2016 8:13
Date Collected:	21-Oct-2016 14:50			Date Analyzed:	03-Nov-16 01:34 Column: ZB-50		

Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
Hexachlorobenzene	12.7			B	IS 13C6-Hexachlorobenzene	49.3	5 - 120	
alpha-BHC	34.3				IS 13C6-alpha-BHC	64.6	32 - 130	
Lindane (gamma-BHC)	ND	3.36			IS 13C6-Lindane (gamma-BHC)	72.8	11 - 120	
beta-BHC	8.65				IS 13C6-beta-BHC	86.2	32 - 130	
delta-BHC	ND	2.26			IS 13C6-delta-BHC	88.4	36 - 137	
Heptachlor	ND	1.11			IS 13C10-Heptachlor	73.6	5 - 120	
Aldrin	ND	1.32			IS 13C12-Aldrin	70.0	5 - 120	
Oxychlordane	ND	3.60			IS 13C10-Oxychlordane	83.1	23 - 135	
cis-Heptachlor Epoxide	ND	2.09			IS 13C10-cis-Heptachlor Epoxide	111	27 - 137	
trans-Heptachlor Epoxide	ND	5.30			IS 13C10-trans-Chlordane (gamma)	88.4	21 - 132	
trans-Chlordane (gamma)	ND	2.92			IS 13C10-trans-Nonachlor	94.8	14 - 136	
trans-Nonachlor	ND	2.91			IS 13C9-Endosulfan I (alpha)	100	15 - 148	
cis-Chlordane (alpha)	ND	2.80			IS 13C12-2,4'-DDE	97.1	47 - 160	
Endosulfan I (alpha)	ND	4.52			IS 13C12-4,4'-DDE	102	47 - 160	
2,4'-DDE	ND	2.84			IS 13C12-Dieldrin	93.5	40 - 151	
4,4'-DDE	17.7				IS 13C12-Endrin	109	35 - 155	
Dieldrin	12.3			B	IS 13C10-cis-Nonachlor	92.4	36 - 139	
Endrin	ND	2.53			IS 13C9-Endosulfan II (beta)	101	5 - 122	
cis-Nonachlor	ND	2.76			IS 13C12-2,4'-DDD	103	5 - 199	
Endosulfan II (beta)	ND	4.01			IS 13C12-2,4'-DDT	109	5 - 199	
2,4'-DDD	ND	3.30			IS 13C12-4,4'-DDD	105	5 - 120	
2,4'-DDT	ND	5.12			IS 13C12-4,4'-DDT	111	5 - 120	
4,4'-DDD	10.5				IS 13C9-Endosulfan Sulfate	98.5	15 - 148	
4,4'-DDT	34.4				IS 13C12-Methoxychlor	106	5 - 120	
Endosulfan Sulfate	ND	4.48			IS 13C10-Mirex	74.3	5 - 120	
4,4'-Methoxychlor	ND	2.73			IS 13C12-Endrin Aldehyde	74.1	15 - 148	
Mirex	ND	0.674			IS 13C12-Endrin Ketone	105	15 - 148	
Endrin Aldehyde	ND	3.55						
Endrin Ketone	ND	3.93						

DL - Sample specific estimated detection limit

LCL-UCL - Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample Description: NB3156FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8673113  
LL Group # 1727500  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/01/2016 10:00 by JH Tierra Solutions, Inc.

Submitted: 11/01/2016 20:53  
Reported: 12/09/2016 09:20

N7416 SDG#: NB374-16FB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>Metals</b>					
		<b>SW-846 6010C</b>	<b>mg/l</b>	<b>mg/l</b>	
07070	Titanium in Water	7440-32-6	N.D.	0.0013	1
		<b>SW-846 6020</b>	<b>mg/l</b>	<b>mg/l</b>	
06023	Aluminum	7429-90-5	N.D.	0.0231	1
06024	Antimony	7440-36-0	N.D.	0.00048	1
06025	Arsenic	7440-38-2	N.D.	0.00068	1
06026	Barium	7440-39-3	0.0013 B	0.00096	1
06027	Beryllium	7440-41-7	N.D.	0.00011	1
06028	Cadmium	7440-43-9	N.D.	0.00019	1
06029	Calcium	7440-70-2	N.D.	0.0981	1
06031	Chromium	7440-47-3	N.D.	0.00059	1
06032	Cobalt	7440-48-4	N.D.	0.00020	1
06033	Copper	7440-50-8	N.D.	0.00052	1
06034	Iron	7439-89-6	N.D.	0.0337	1
06035	Lead	7439-92-1	N.D.	0.000090	1
06036	Magnesium	7439-95-4	N.D.	0.0117	1
06037	Manganese	7439-96-5	N.D.	0.00088	1
06039	Nickel	7440-02-0	N.D.	0.00085	1
06040	Potassium	7440-09-7	N.D.	0.0669	1
06041	Selenium	7782-49-2	N.D.	0.00044	1
06042	Silver	7440-22-4	N.D.	0.00012	1
06043	Sodium	7440-23-5	0.0498 B	0.0468	1
06045	Thallium	7440-28-0	N.D.	0.00016	1
06048	Vanadium	7440-62-2	N.D.	0.00020	1
06049	Zinc	7440-66-6	N.D.	0.0035	1
<b>Wet Chemistry</b>					
		<b>SW-846 9012A</b>	<b>mg/l</b>	<b>mg/l</b>	
08255	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
		<b>SW-846 9060A</b>	<b>mg/l</b>	<b>mg/l</b>	
00354	Total Organic Carbon (Quad)	n.a.	N.D.	0.50	1
	The reported result is the average of the following trials:				
	0	mg/l			
	0	mg/l			
	0	mg/l			
	0	mg/l			

Sample Description: NB3156FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8673113  
LL Group # 1727500  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/01/2016 10:00 by JH Tierra Solutions, Inc.

Submitted: 11/01/2016 20:53  
Reported: 12/09/2016 09:20

N7416 SDG#: NB374-16FB

### Sample Comments

State of New Jersey Lab Certification No. PA011  
The analysis for mercury and methyl mercury was subcontracted to another laboratory. See attached reports.

B (for Inorganic tests) = estimated value: The result is  $\geq$  the Method Detection Limit (MDL)  
and  $<$  the Limit of Quantitation (LOQ).  
Note: LOQ = PQL

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07070	Titanium in Water	SW-846 6010C	1	163090635008	11/08/2016 00:18	Matthew R Machtinger	1
06023	Aluminum	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06024	Antimony	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06025	Arsenic	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06026	Barium	SW-846 6020	1	163096050002D	11/09/2016 20:07	Patrick J Engle	1
06027	Beryllium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06028	Cadmium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06029	Calcium	SW-846 6020	1	163096050002B	11/09/2016 20:07	Patrick J Engle	1
06031	Chromium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06032	Cobalt	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06033	Copper	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06034	Iron	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06035	Lead	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06036	Magnesium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06037	Manganese	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06039	Nickel	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06040	Potassium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06041	Selenium	SW-846 6020	1	163096050002B	11/09/2016 20:07	Patrick J Engle	1
06042	Silver	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06043	Sodium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06045	Thallium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06048	Vanadium	SW-846 6020	1	163096050002A	11/09/2016 20:07	Patrick J Engle	1
06049	Zinc	SW-846 6020	1	163096050002A	11/10/2016 14:12	Patrick J Engle	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	163090635008	11/06/2016 07:49	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	163096050002	11/08/2016 12:51	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	16314117102A	11/10/2016 11:26	Dein K Bernot	1
00354	Total Organic Carbon (Quad)	SW-846 9060A	1	16308667604A	11/03/2016 15:57	Drew M Gerhart	1
08256	Cyanide Water Distillation	SW-846 9012A	1	16314117102A	11/09/2016 20:00	Barbara A Washington	1

Sample Description: NB3156FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8673114  
LL Group # 1727500  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/01/2016 10:00 by JH Tierra Solutions, Inc.

Submitted: 11/01/2016 20:53

Reported: 12/09/2016 09:20

N7417 SDG#: NB374-17FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>				
02898	1,2-Dichlorobenzene	95-50-1	N.D.	1.0	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	1.0	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	1.0	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D</b>	<b>ug/l</b>	<b>ug/l</b>	
14241	Acetophenone	98-86-2	N.D.	1.0	1
14241	Atrazine	1912-24-9	N.D.	5.0	1
14241	Benzaldehyde	100-52-7	N.D.	5.0	1
14241	Benzidine	92-87-5	N.D.	60	1
14241	Benzoic acid	65-85-0	N.D.	15	1
14241	1,1'-Biphenyl	92-52-4	N.D.	1.0	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	1.0	1
14241	Butylbenzylphthalate	85-68-7	N.D.	5.0	1
14241	Di-n-butylphthalate	84-74-2	N.D.	5.0	1
14241	Caprolactam	105-60-2	N.D.	15	1
14241	Carbazole	86-74-8	N.D.	1.0	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1.0	1
14241	4-Chloroaniline	106-47-8	N.D.	4.0	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	1.0	1
14241	bis(2-Chloroethyl) ether	111-44-4	N.D.	1.0	1
14241	2-Chloronaphthalene	91-58-7	N.D.	1.0	1
14241	2-Chlorophenol	95-57-8	N.D.	1.0	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	1.0	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	1.0	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
14241	Dibenzofuran	132-64-9	N.D.	1.0	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	5.0	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1.0	1
14241	Diethylphthalate	84-66-2	N.D.	5.0	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	1.0	1
14241	Dimethylphthalate	131-11-3	N.D.	5.0	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	15	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	30	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	5.0	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	1.0	1
14241	1,2-Diphenylhydrazine	122-66-7	N.D.	1.0	1
14241	bis(2-Ethylhexyl) phthalate	117-81-7	N.D.	5.0	1
14241	Hexachlorobutadiene	87-68-3	N.D.	1.0	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	15	1
14241	Hexachloroethane	67-72-1	N.D.	5.0	1
14241	Isophorone	78-59-1	N.D.	1.0	1
14241	2-Methylphenol	95-48-7	N.D.	1.0	1
14241	4-Methylphenol	106-44-5	N.D.	1.0	1

Sample Description: NB3156FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8673114  
LL Group # 1727500  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/01/2016 10:00 by JH Tierra Solutions, Inc.

Submitted: 11/01/2016 20:53

Reported: 12/09/2016 09:20

N7417 SDG#: NB374-17FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D</b>	<b>ug/l</b>	<b>ug/l</b>	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
14241	2-Nitroaniline	88-74-4	N.D.	1.0	1
14241	3-Nitroaniline	99-09-2	N.D.	1.0	1
14241	4-Nitroaniline	100-01-6	N.D.	1.0	1
14241	Nitrobenzene	98-95-3	N.D.	1.0	1
14241	2-Nitrophenol	88-75-5	N.D.	1.0	1
14241	4-Nitrophenol	100-02-7	N.D.	30	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	1.0	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	1.0	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
14241	Di-n-octylphthalate	117-84-0	N.D.	5.0	1
14241	Pentachlorophenol	87-86-5	N.D.	5.0	1
14241	Phenol	108-95-2	N.D.	1.0	1
14241	Pyridine	110-86-1	N.D.	5.0	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	1.0	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	1.0	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	1.0	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	1.0	1
	The surrogate QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.				
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D SIM Modified</b>	<b>ug/l</b>	<b>ug/l</b>	
10262	Acenaphthene	83-32-9	N.D.	0.05	1
10262	Acenaphthylene	208-96-8	N.D.	0.05	1
10262	Anthracene	120-12-7	N.D.	0.05	1
10262	Benzo(a)anthracene	56-55-3	N.D.	0.05	1
10262	Benzo(a)pyrene	50-32-8	N.D.	0.05	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.	0.05	1
10262	Benzo(e)pyrene	192-97-2	N.D.	0.05	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.	0.05	1
10262	Benzo(k)fluoranthene	n.a.	N.D.	0.05	1
10262	C1-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C1-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C1-Fluorenes	n.a.	N.D.	0.05	1
10262	C1-Naphthalenes	n.a.	N.D.	0.05	1
10262	C1-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C2-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C2-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C2-Fluorenes	n.a.	N.D.	0.05	1
10262	C2-Naphthalenes	n.a.	N.D.	0.05	1
10262	C2-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C3-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C3-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C3-Fluorenes	n.a.	N.D.	0.05	1
10262	C3-Naphthalenes	n.a.	N.D.	0.05	1

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Submitted: 11/01/2016 20:53

Reported: 12/09/2016 09:20

N7417 SDG#: NB374-17FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270D SIM Modified ug/l</b>					
10262	C3-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C4-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C4-Naphthalenes	n.a.	N.D.	0.05	1
10262	C4-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	Chrysene	218-01-9	N.D.	0.05	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.	0.05	1
10262	Fluoranthene	206-44-0	N.D.	0.05	1
10262	Fluorene	86-73-7	N.D.	0.05	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.05	1
10262	1-Methylnaphthalene	90-12-0	N.D.	0.05	1
10262	2-Methylnaphthalene	91-57-6	N.D.	0.05	1
10262	Naphthalene	91-20-3	N.D.	0.05	1
10262	Perylene	198-55-0	N.D.	0.05	1
10262	Phenanthrene	85-01-8	N.D.	0.05	1
10262	Pyrene	129-00-0	N.D.	0.05	1
<b>GC Volatiles SW-846 8015B ug/l</b>					
01635	TPH-GRO water C6-C10	n.a.	140	50	1
<b>Herbicides SW-846 8151A ug/l</b>					
10407	2,4-D	94-75-7	N.D.	0.50	1
10407	2,4-DB	94-82-6	N.D.	1.0	1
10407	2,4,5-T	93-76-5	N.D.	0.050	1
10407	2,4,5-TP	93-72-1	N.D.	0.050	1
<b>Pesticides/PCBs SW-846 8082 ug/l</b>					
12013	PCB-1016	12674-11-2	N.D.	0.010	1
12013	PCB-1221	11104-28-2	N.D.	0.010	1
12013	PCB-1232	11141-16-5	N.D.	0.010	1
12013	PCB-1242	53469-21-9	N.D.	0.010	1
12013	PCB-1248	12672-29-6	N.D.	0.010	1
12013	PCB-1254	11097-69-1	N.D.	0.010	1
12013	PCB-1260	11096-82-5	N.D.	0.010	1
12013	PCB-1262	37324-23-5	N.D.	0.010	1
12013	PCB-1268	11100-14-4	N.D.	0.010	1
<b>GC Petroleum SW-846 8015B modified ug/l</b>					
<b>Hydrocarbons</b>					
11554	n-Decane	124-18-5	N.D.	0.99	1
11554	n-Docosane	629-97-0	N.D.	0.99	1
11554	n-Dodecane	112-40-3	N.D.	0.99	1
11554	n-Dotriacontane	544-85-4	N.D.	0.99	1
11554	n-Eicosane	112-95-8	N.D.	0.99	1
11554	n-Heneicosane	629-94-7	N.D.	0.99	1
11554	n-Hentriacontane	630-04-6	N.D.	0.99	1
11554	n-Heptacosane	593-49-7	N.D.	0.99	1
11554	n-Heptadecane	629-78-7	N.D.	0.99	1

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CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC Petroleum</b>		<b>SW-846 8015B modified</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons</b>					
11554	n-Heptatriacontane	7194-84-5	N.D.	0.99	1
11554	n-Hexacosane	630-01-3	N.D.	0.99	1
11554	n-Hexadecane	544-76-3	N.D.	0.99	1
11554	n-Hexatriacontane	630-06-8	N.D.	0.99	1
11554	n-Nonacosane	630-03-5	N.D.	0.99	1
11554	n-Nonadecane	629-92-5	N.D.	0.99	1
11554	n-Nonane	111-84-2	N.D.	0.99	1
11554	n-Nonatriacontane	7194-86-7	N.D.	0.99	1
11554	n-Octacosane	630-02-4	N.D.	0.99	1
11554	n-Octadecane	593-45-3	N.D.	0.99	1
11554	n-Octatriacontane	7194-85-6	N.D.	0.99	1
11554	n-Pentacosane	629-99-2	N.D.	0.99	1
11554	n-Pentadecane	629-62-9	N.D.	0.99	1
11554	n-Pentatriacontane	630-07-9	N.D.	0.99	1
11554	Phytane	638-36-8	N.D.	0.99	1
11554	Pristane	1921-70-6	N.D.	0.99	1
11554	n-Tetracontane	4181-95-7	N.D.	0.99	1
11554	n-Tetracosane	646-31-1	N.D.	0.99	1
11554	n-Tetradecane	629-59-4	0.44 J	0.99	1
11554	n-Tetratriacontane	14167-59-0	N.D.	0.99	1
11554	Total TPH (C9-C40)	n.a.	N.D.	99	1
11554	n-Triacontane	638-68-6	N.D.	0.99	1
11554	n-Tricosane	638-67-5	N.D.	0.99	1
11554	n-Tridecane	629-50-5	N.D.	0.99	1
11554	n-Tritriacontane	630-05-7	N.D.	0.99	1
11554	n-Undecane	1120-21-4	N.D.	0.99	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the Total TPH result is less than the MDL, the data is reported.

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N7417 SDG#: NB374-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Dioxins/Furans</b>		<b>EPA 1613B October 1994</b>	<b>pg/l</b>	<b>pg/l</b>	
10915	2378-TCDD	1746-01-6	N.D.	2.23	1
10915	12378-PeCDD	40321-76-4	0.282 JBQ	11.2	1
10915	123478-HxCDD	39227-28-6	N.D.	11.2	1
10915	123678-HxCDD	57653-85-7	N.D.	11.2	1
10915	123789-HxCDD	19408-74-3	0.268 JBQ	11.2	1
10915	1234678-HpCDD	35822-46-9	0.267 JBQ	11.2	1
10915	OCDD	3268-87-9	0.989 JBQ	22.3	1
10915	2378-TCDF	51207-31-9	N.D.	2.23	1
10915	12378-PeCDF	57117-41-6	0.376 JB	11.2	1
10915	23478-PeCDF	57117-31-4	0.276 JB	11.2	1
10915	123478-HxCDF	70648-26-9	N.D.	11.2	1
10915	123678-HxCDF	57117-44-9	0.144 JBQ	11.2	1
10915	123789-HxCDF	72918-21-9	0.688 JBQ	11.2	1
10915	234678-HxCDF	60851-34-5	N.D.	11.2	1
10915	1234678-HpCDF	67562-39-4	0.181 JBQ	11.2	1
10915	1234789-HpCDF	55673-89-7	0.272 JBQ	11.2	1
10915	OCDF	39001-02-0	0.439 JBQ	22.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	90	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	92	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	106	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	70	17 - 157

**Dioxins/Furans Data Qualifiers:**

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Reporting Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

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N7417 SDG#: NB374-17FB

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CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
F	Interference is present				
S	Saturation of detection signal				

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CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>	<b>PCB</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB1	2051-60-7	N.D.	20.4	1
13708	PCB10	33146-45-1	N.D.	51.0	1
13708	PCB103	60145-21-3	N.D.	51.0	1
13708	PCB104	56558-16-8	N.D.	51.0	1
13708	PCB105	32598-14-4	N.D.	51.0	1
13708	PCB106	70424-69-0	N.D.	51.0	1
13708	PCB107	70424-68-9	N.D.	51.0	1
13708	PCB108+124	n.a.	N.D.	102	1
13708	PCB11	2050-67-1	40.6 JB	102	1
13708	PCB110+115	n.a.	N.D.	102	1
13708	PCB111	39635-32-0	N.D.	51.0	1
13708	PCB112	74472-36-9	N.D.	51.0	1
13708	PCB114	74472-37-0	N.D.	51.0	1
13708	PCB118	31508-00-6	N.D.	102	1
13708	PCB12+13	n.a.	N.D.	51.0	1
13708	PCB120	68194-12-7	N.D.	51.0	1
13708	PCB121	56558-18-0	N.D.	51.0	1
13708	PCB122	76842-07-4	N.D.	51.0	1
13708	PCB123	65510-44-3	N.D.	51.0	1
13708	PCB126	57465-28-8	N.D.	51.0	1
13708	PCB127	39635-33-1	N.D.	51.0	1
13708	PCB128+166	n.a.	N.D.	102	1
13708	PCB129+138+163	n.a.	N.D.	204	1
13708	PCB130	52663-66-8	N.D.	51.0	1
13708	PCB131	61798-70-7	N.D.	51.0	1
13708	PCB132	38380-05-1	N.D.	51.0	1
13708	PCB133	35694-04-3	N.D.	51.0	1
13708	PCB134	52704-70-8	N.D.	102	1
13708	PCB135+151	n.a.	N.D.	102	1
13708	PCB136	38411-22-2	N.D.	51.0	1
13708	PCB137	35694-06-5	N.D.	51.0	1
13708	PCB139+140	n.a.	N.D.	102	1
13708	PCB14	34883-41-5	N.D.	20.4	1
13708	PCB141	52712-04-6	N.D.	51.0	1
13708	PCB142	41411-61-4	N.D.	51.0	1
13708	PCB143	68194-15-0	N.D.	102	1
13708	PCB144	68194-14-9	N.D.	51.0	1
13708	PCB145	74472-40-5	N.D.	51.0	1
13708	PCB146	51908-16-8	N.D.	51.0	1
13708	PCB147+149	n.a.	N.D.	102	1
13708	PCB148	74472-41-6	N.D.	51.0	1
13708	PCB15	2050-68-2	N.D.	51.0	1
13708	PCB150	68194-08-1	N.D.	51.0	1
13708	PCB152	68194-09-2	N.D.	51.0	1
13708	PCB153+168	n.a.	N.D.	102	1
13708	PCB154	60145-22-4	N.D.	102	1
13708	PCB155	33979-03-2	N.D.	51.0	1
13708	PCB156+157	n.a.	N.D.	102	1
13708	PCB158	74472-42-7	N.D.	51.0	1

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<b>PCB Congeners</b>		<b>EPA 1668A PCB Congeners</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB159	39635-35-3	N.D.	51.0	1
13708	PCB16	38444-78-9	N.D.	20.4	1
13708	PCB160	41411-62-5	N.D.	204	1
13708	PCB161	74472-43-8	N.D.	51.0	1
13708	PCB162	39635-34-2	N.D.	51.0	1
13708	PCB164	74472-45-0	N.D.	51.0	1
13708	PCB165	74472-46-1	N.D.	51.0	1
13708	PCB167	52663-72-6	N.D.	51.0	1
13708	PCB169	32774-16-6	N.D.	51.0	1
13708	PCB17	37680-66-3	N.D.	20.4	1
13708	PCB170	35065-30-6	N.D.	51.0	1
13708	PCB171+173	n.a.	N.D.	102	1
13708	PCB172	52663-74-8	N.D.	51.0	1
13708	PCB174	38411-25-5	N.D.	51.0	1
13708	PCB175	40186-70-7	N.D.	51.0	1
13708	PCB176	52663-65-7	N.D.	51.0	1
13708	PCB177	52663-70-4	N.D.	51.0	1
13708	PCB178	52663-67-9	N.D.	51.0	1
13708	PCB179	52663-64-6	N.D.	51.0	1
13708	PCB18+30	n.a.	30.3	51.0	1
13708	PCB180+193	n.a.	N.D.	102	1
13708	PCB181	74472-47-2	N.D.	51.0	1
13708	PCB182	60145-23-5	N.D.	51.0	1
13708	PCB183+185	n.a.	N.D.	102	1
13708	PCB184	74472-48-3	N.D.	51.0	1
13708	PCB186	74472-49-4	N.D.	51.0	1
13708	PCB187	52663-68-0	N.D.	51.0	1
13708	PCB188	74487-85-7	N.D.	51.0	1
13708	PCB189	39635-31-9	N.D.	51.0	1
13708	PCB19	38444-73-4	N.D.	20.4	1
13708	PCB190	41411-64-7	N.D.	51.0	1
13708	PCB191	74472-50-7	N.D.	51.0	1
13708	PCB192	74472-51-8	N.D.	51.0	1
13708	PCB194	35694-08-7	N.D.	51.0	1
13708	PCB195	52663-78-2	N.D.	51.0	1
13708	PCB196	42740-50-1	N.D.	51.0	1
13708	PCB197+200	n.a.	N.D.	102	1
13708	PCB198+199	n.a.	N.D.	102	1
13708	PCB2	2051-61-8	N.D.	20.4	1
13708	PCB20+28	n.a.	23.2	51.0	1
13708	PCB201	40186-71-8	N.D.	51.0	1
13708	PCB202	2136-99-4	N.D.	102	1
13708	PCB203	52663-76-0	N.D.	51.0	1
13708	PCB204	74472-52-9	N.D.	51.0	1
13708	PCB205	74472-53-0	N.D.	51.0	1
13708	PCB206	40186-72-9	N.D.	51.0	1
13708	PCB207	52663-79-3	N.D.	51.0	1
13708	PCB208	52663-77-1	N.D.	51.0	1
13708	PCB209	2051-24-3	16.8	51.0	1

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Reported: 12/09/2016 09:20

N7417 SDG#: NB374-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>		<b>pg/l</b>	<b>pg/l</b>	
13708	PCB21+33	n.a.	N.D.	51.0	1
13708	PCB22	38444-85-8	N.D.	20.4	1
13708	PCB23	55720-44-0	N.D.	20.4	1
13708	PCB24	55702-45-9	N.D.	20.4	1
13708	PCB25	55712-37-3	N.D.	20.4	1
13708	PCB26+29	n.a.	N.D.	51.0	1
13708	PCB27	38444-76-7	N.D.	20.4	1
13708	PCB3	2051-62-9	N.D.	51.0	1
13708	PCB31	16606-02-3	20.0 J	51.0	1
13708	PCB32	38444-77-8	N.D.	20.4	1
13708	PCB34	37680-68-5	N.D.	20.4	1
13708	PCB35	37680-69-6	N.D.	20.4	1
13708	PCB36	38444-87-0	N.D.	20.4	1
13708	PCB37	38444-90-5	N.D.	20.4	1
13708	PCB38	53555-66-1	N.D.	20.4	1
13708	PCB39	38444-88-1	N.D.	20.4	1
13708	PCB4	13029-08-8	17.4 J	51.0	1
13708	PCB40+71	n.a.	N.D.	102	1
13708	PCB41	52663-59-9	N.D.	102	1
13708	PCB42	36559-22-5	N.D.	51.0	1
13708	PCB43	70362-46-8	N.D.	51.0	1
13708	PCB44+47+65	n.a.	N.D.	102	1
13708	PCB45	70362-45-7	N.D.	51.0	1
13708	PCB46	41464-47-5	N.D.	20.4	1
13708	PCB48	70362-47-9	N.D.	51.0	1
13708	PCB49+69	n.a.	N.D.	102	1
13708	PCB5	16605-91-7	N.D.	20.4	1
13708	PCB50+53	n.a.	N.D.	102	1
13708	PCB51	68194-04-7	N.D.	51.0	1
13708	PCB52	35693-99-3	30.9 J	51.0	1
13708	PCB54	15968-05-5	N.D.	51.0	1
13708	PCB55	74338-24-2	N.D.	51.0	1
13708	PCB56	41464-43-1	N.D.	51.0	1
13708	PCB57	70424-67-8	N.D.	51.0	1
13708	PCB58	41464-49-7	N.D.	51.0	1
13708	PCB59+62+75	n.a.	N.D.	102	1
13708	PCB6	25569-80-6	N.D.	20.4	1
13708	PCB60	33025-41-1	N.D.	51.0	1
13708	PCB61+70+74+76	n.a.	N.D.	204	1
13708	PCB63	74472-34-7	N.D.	51.0	1
13708	PCB64	52663-58-8	N.D.	51.0	1
13708	PCB66	32598-10-0	N.D.	51.0	1
13708	PCB67	73575-53-8	N.D.	51.0	1
13708	PCB68	73575-52-7	N.D.	51.0	1
13708	PCB7	33284-50-3	N.D.	20.4	1
13708	PCB72	41464-42-0	N.D.	51.0	1
13708	PCB73	74338-23-1	N.D.	51.0	1
13708	PCB77	32598-13-3	N.D.	51.0	1
13708	PCB78	70362-49-1	N.D.	51.0	1

Sample Description: NB3156FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8673114  
LL Group # 1727500  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/01/2016 10:00 by JH Tierra Solutions, Inc.

Submitted: 11/01/2016 20:53  
Reported: 12/09/2016 09:20

N7417 SDG#: NB374-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>		<b>pg/l</b>	<b>pg/l</b>	
13708	PCB79	41464-48-6	N.D.	51.0	1
13708	PCB8	34883-43-7	N.D.	51.0	1
13708	PCB80	33284-52-5	N.D.	51.0	1
13708	PCB81	70362-50-4	N.D.	51.0	1
13708	PCB82	52663-62-4	N.D.	51.0	1
13708	PCB83	60145-20-2	N.D.	102	1
13708	PCB84	52663-60-2	N.D.	20.4	1
13708	PCB85+116+117	n.a.	N.D.	102	1
13708	PCB86+87+97+109+119+125	n.a.	N.D.	204	1
13708	PCB88	55215-17-3	N.D.	51.0	1
13708	PCB89	73575-57-2	N.D.	51.0	1
13708	PCB9	34883-39-1	N.D.	20.4	1
13708	PCB90+101+113	n.a.	N.D.	204	1
13708	PCB91	68194-05-8	N.D.	51.0	1
13708	PCB92	52663-61-3	N.D.	51.0	1
13708	PCB93+100	n.a.	N.D.	204	1
13708	PCB94	73575-55-0	N.D.	51.0	1
13708	PCB95	38379-99-6	N.D.	204	1
13708	PCB96	73575-54-9	N.D.	51.0	1
13708	PCB98+102	n.a.	N.D.	204	1
13708	PCB99	38380-01-7	N.D.	102	1

The summation PCBs reported cannot be resolved under the chromatographic conditions used for sample analysis. The concentration(s) reported is the combined total of the PCBs and would be the maximum possible concentration for any individual PCB of interest.

Labeled Compounds	%Rec	Windows
13C12-PCB1	56	15 - 150
13C12-PCB3	62	15 - 150
13C12-PCB4	61	25 - 150
13C12-PCB15	79	25 - 150
13C12-PCB19	67	25 - 150
13C12-PCB28	78	30 - 135
13C12-PCB37	87	25 - 150
13C12-PCB54	70	25 - 150
13C12-PCB77	98	25 - 150
13C12-PCB81	98	25 - 150
13C12-PCB104	86	25 - 150
13C12-PCB105	97	25 - 150
13C12-PCB111	89	30 - 135
13C12-PCB114	93	25 - 150
13C12-PCB118	93	25 - 150
13C12-PCB123	93	25 - 150
13C12-PCB126	97	25 - 150
13C12-PCB155	79	25 - 150
13C12-PCB167	91	25 - 150
13C12-PCB169	97	25 - 150

Sample Description: NB3156FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8673114  
LL Group # 1727500  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/01/2016 10:00 by JH Tierra Solutions, Inc.

Submitted: 11/01/2016 20:53  
Reported: 12/09/2016 09:20

N7417 SDG#: NB374-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Labeled Compounds</b>					
	<b>%Rec</b>	<b>Windows</b>			
13C12-PCB178	93	30 - 135			
13C12-PCB188	86	25 - 150			
13C12-PCB189	94	25 - 150			
13C12-PCB202	92	25 - 150			
13C12-PCB205	99	25 - 150			
13C12-PCB206	97	25 - 150			
13C12-PCB208	94	25 - 150			
13C12-PCB209	116	25 - 150			
13C12-PCB156+157	89	25 - 150			
13C12-PCB8	66	25 - 150			
13C12-PCB32	73	25 - 150			
13C12-PCB31	86	25 - 150			
13C12-PCB47	80	25 - 150			
13C12-PCB95	87	25 - 150			
13C12-PCB70	88	25 - 150			
13C12-PCB60	91	25 - 150			
13C12-PCB85	90	25 - 150			
13C12-PCB133	81	25 - 150			
13C12-PCB141	85	25 - 150			
13C12-PCB127	98	25 - 150			
13C12-PCB128	89	25 - 150			
13C12-PCB162	92	25 - 150			
13C12-PCB180	95	25 - 150			

**Dioxins/Furans Data Qualifiers:**

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Method Detection Limit and Minimum Reporting Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present
- S* Saturation of detection signal

Sample Description: NB3156FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8673114  
LL Group # 1727500  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/01/2016 10:00 by JH Tierra Solutions, Inc.

Submitted: 11/01/2016 20:53  
Reported: 12/09/2016 09:20

N7417 SDG#: NB374-17FB

### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	VOCs 8260B	SW-846 8260B 25mL purge	1	I163131AA	11/08/2016 12:45	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I163131AA	11/08/2016 12:45	Kerri E Legerlotz	1
14241	SVOAs 8270D MINI	SW-846 8270D	1	16308WAH026	11/08/2016 01:38	Catherine E Bachman	1
10262	PAH, Alkyl PAH Water 8270D SIM	SW-846 8270D SIM Modified	1	16308WAB026	11/04/2016 14:23	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	16308WAB026	11/03/2016 23:10	Karen L Beyer	1
11010	8270D BNA Extraction	SW-846 3510C	2	16308WAH026	11/04/2016 17:30	Kate E Lutte	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	16308B20A	11/03/2016 19:12	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	16308B20A	11/03/2016 19:12	Brett W Kenyon	1
10407	Herbicides in Water	SW-846 8151A	1	163120015A	11/11/2016 10:10	Heather M Miller	1
12013	PCBs in Water - Low Level	SW-846 8082	1	163080028A	11/06/2016 15:54	Jessica L Miller	1
12026	PCB Waters Ext. - Low Level	SW-846 3510C	1	163080028A	11/03/2016 23:10	Karen L Beyer	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	163120015A	11/07/2016 17:30	Ryan J Dowdy	1
11554	TEPH C9-C40 incl. Totals	SW-846 8015B modified	1	163090004A	11/10/2016 10:54	Heather E Williams	1
11596	Water Ext. for SHC	SW-846 3510C	1	163090004A	11/04/2016 21:50	Karen L Beyer	1
10915	Dioxins/Furans in Water - 1613	EPA 1613B October 1994	1	16305004	11/07/2016 17:35	Michael A Ziegler	1
13708	PCB Congeners 1668A Water	EPA 1668A PCB Congeners	1	16309002	11/09/2016 23:39	Michael A Ziegler	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	16305004	11/04/2016 08:45	Tyler K Daley	1
13235	PCB Congeners in Water-SepF	EPA 1668A PCB Congeners	1	16309002	11/08/2016 13:00	Tyler K Daley	1



Tierra Solutions, Inc  
2 Tower Center Boulevard, 10th Floor  
East Brunswick NJ, 08816

Project: Mercury  
Project Number: NB374  
Project Manager: Carlie T. Thompson

Reported:  
06-Dec-16 16:20

**NB3156FB**  
**1611120-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EFGS-013 Methyl Hg Distillation for Water**

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F611518	30-Nov-16	6L02006	01-Dec-16	EPA 1630/FGS-070	QM-12, U
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**Sample Preparation: EPA 1631E BrCl Oxidation**

Mercury	ND	0.08	0.50	ng/L	1	F611373	03-Nov-16	6K16024	16-Nov-16	EPA 1631E	U
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Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**Sample ID: NB3156FB**

**EPA Method 1699**

Client Data		Sample Data		Laboratory Data			
Name:	Tierra Solutions, Inc.	Matrix:	Water	Lab Sample:	1601387-08	Date Received:	04-Nov-2016 8:54
Project:	Newark Bay Sampling Phase III	Sample Size:	0.996 L	QC Batch:	B6K0027	Date Extracted:	04-Nov-2016 8:25
Date Collected:	01-Nov-2016 10:00			Date Analyzed:			

Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
Hexachlorobenzene	7.17			J, B	IS 13C6-Hexachlorobenzene	72.5	5 - 120	
alpha-BHC	ND	2.10			IS 13C6-alpha-BHC	79.4	32 - 130	
Lindane (gamma-BHC)	ND	2.95			IS 13C6-Lindane (gamma-BHC)	85.8	11 - 120	
beta-BHC	ND	3.41			IS 13C6-beta-BHC	92.1	32 - 130	
delta-BHC	ND	2.32			IS 13C6-delta-BHC	96.1	36 - 137	
Heptachlor	ND	0.642			IS 13C10-Heptachlor	102	5 - 120	
Aldrin	ND	1.32			IS 13C12-Aldrin	88.2	5 - 120	
Oxychlordane	ND	3.59			IS 13C10-Oxychlordane	106	23 - 135	
cis-Heptachlor Epoxide	ND	2.62			IS 13C10-cis-Heptachlor Epoxide	107	27 - 137	
trans-Heptachlor Epoxide	ND	9.40			IS 13C10-trans-Chlordane (gamma)	100	21 - 132	
trans-Chlordane (gamma)	ND	3.99			IS 13C10-trans-Nonachlor	97.7	14 - 136	
trans-Nonachlor	ND	3.09			IS 13C9-Endosulfan I (alpha)	99.8	15 - 148	
cis-Chlordane (alpha)	ND	2.84			IS 13C12-2,4'-DDE	94.8	47 - 160	
Endosulfan I (alpha)	ND	3.88			IS 13C12-4,4'-DDE	104	47 - 160	
2,4'-DDE	ND	0.920			IS 13C12-Dieldrin	96.9	40 - 151	
4,4'-DDE	5.24			J	IS 13C12-Endrin	98.7	35 - 155	
Dieldrin	7.59			J	IS 13C10-cis-Nonachlor	103	36 - 139	
Endrin	ND	4.46			IS 13C9-Endosulfan II (beta)	95.7	5 - 122	
cis-Nonachlor	ND	4.39			IS 13C12-2,4'-DDD	113	5 - 199	
Endosulfan II (beta)	ND	14.2			IS 13C12-2,4'-DDT	120	5 - 199	
2,4'-DDD	ND	1.71			IS 13C12-4,4'-DDD	116	5 - 120	
2,4'-DDT	ND	2.48			IS 13C12-4,4'-DDT	119	5 - 120	
4,4'-DDD	ND	1.56			IS 13C9-Endosulfan Sulfate	96.8	15 - 148	
4,4'-DDT	ND	2.27			IS 13C12-Methoxychlor	109	5 - 120	
Endosulfan Sulfate	ND	6.61			IS 13C10-Mirex	89.8	5 - 120	
4,4'-Methoxychlor	ND	1.37			IS 13C12-Endrin Aldehyde	83.9	15 - 148	
Mirex	ND	0.869			IS 13C12-Endrin Ketone	99.2	15 - 148	
Endrin Aldehyde	ND	2.99						
Endrin Ketone	ND	4.38						

DL - Sample specific estimated detection limit

LCL-UCL - Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
Submitted: 11/09/2016 20:00  
Reported: 12/16/2016 10:54

Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>				
02898	1,2-Dichlorobenzene	95-50-1	N.D.	1.0	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	1.0	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	1.0	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270D</b>	<b>ug/l</b>	<b>ug/l</b>	
14241	Acetophenone	98-86-2	N.D.	1	1
14241	Atrazine	1912-24-9	N.D.	5	1
14241	Benzaldehyde	100-52-7	N.D.	5	1
14241	Benzidine	92-87-5	N.D.	60	1
14241	Benzoic acid	65-85-0	N.D.	15	1
14241	1,1'-Biphenyl	92-52-4	N.D.	1	1
14241	4-Bromophenyl-phenylether	101-55-3	N.D.	1	1
14241	Butylbenzylphthalate	85-68-7	N.D.	5	1
14241	Di-n-butylphthalate	84-74-2	N.D.	5	1
14241	Caprolactam	105-60-2	N.D.	15	1
14241	Carbazole	86-74-8	N.D.	1	1
14241	4-Chloro-3-methylphenol	59-50-7	N.D.	1	1
14241	4-Chloroaniline	106-47-8	N.D.	4	1
14241	bis(2-Chloroethoxy)methane	111-91-1	N.D.	1	1
14241	bis(2-Chloroethyl) ether	111-44-4	N.D.	1	1
14241	2-Chloronaphthalene	91-58-7	N.D.	1	1
14241	2-Chlorophenol	95-57-8	N.D.	1	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	1	1
14241	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
14241	Dibenzofuran	132-64-9	N.D.	1	1
14241	3,3'-Dichlorobenzidine	91-94-1	N.D.	5	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	1	1
14241	Diethylphthalate	84-66-2	N.D.	5	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	1	1
14241	Dimethylphthalate	131-11-3	N.D.	5	1
14241	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	15	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	30	1
14241	2,4-Dinitrotoluene	121-14-2	N.D.	5	1
14241	2,6-Dinitrotoluene	606-20-2	N.D.	1	1
14241	1,2-Diphenylhydrazine	122-66-7	N.D.	1	1
14241	bis(2-Ethylhexyl) phthalate	117-81-7	N.D.	5	1
14241	Hexachlorobutadiene	87-68-3	N.D.	1	1
14241	Hexachlorocyclopentadiene	77-47-4	N.D.	15	1
14241	Hexachloroethane	67-72-1	N.D.	5	1
14241	Isophorone	78-59-1	N.D.	1	1
14241	2-Methylphenol	95-48-7	N.D.	1	1
14241	4-Methylphenol	106-44-5	N.D.	1	1

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH Tierra Solutions, Inc.  
Submitted: 11/09/2016 20:00 2 Tower Center Blvd  
Reported: 12/16/2016 10:54 10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/l	ug/l	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
14241	2-Nitroaniline	88-74-4	N.D.	1	1
14241	3-Nitroaniline	99-09-2	N.D.	1	1
14241	4-Nitroaniline	100-01-6	N.D.	1	1
14241	Nitrobenzene	98-95-3	N.D.	1	1
14241	2-Nitrophenol	88-75-5	N.D.	1	1
14241	4-Nitrophenol	100-02-7	N.D.	30	1
14241	N-Nitroso-di-n-propylamine	621-64-7	N.D.	1	1
14241	N-Nitrosodiphenylamine	86-30-6	N.D.	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
14241	Di-n-octylphthalate	117-84-0	N.D.	5	1
14241	Pentachlorophenol	87-86-5	N.D.	5	1
14241	Phenol	108-95-2	N.D.	1	1
14241	Pyridine	110-86-1	N.D.	5	1
14241	1,2,4,5-Tetrachlorobenzene	95-94-3	N.D.	1	1
14241	2,3,4,6-Tetrachlorophenol	58-90-2	N.D.	1	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	1	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	1	1

Due to a change in the extraction concentration process, the surrogate limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. All results are reported from the first trial. Similar results were obtained in both trials.

GC/MS	Semivolatiles	SW-846 8270D SIM Modified	ug/l	ug/l	
10262	Acenaphthene	83-32-9	N.D.	0.05	1
10262	Acenaphthylene	208-96-8	N.D.	0.05	1
10262	Anthracene	120-12-7	N.D.	0.05	1
10262	Benzo(a)anthracene	56-55-3	N.D.	0.05	1
10262	Benzo(a)pyrene	50-32-8	N.D.	0.05	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.	0.05	1
10262	Benzo(e)pyrene	192-97-2	N.D.	0.05	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.	0.05	1
10262	Benzo(k)fluoranthene	n.a.	N.D.	0.05	1
10262	C1-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C1-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C1-Fluorenes	n.a.	N.D.	0.05	1
10262	C1-Naphthalenes	n.a.	N.D.	0.05	1
10262	C1-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
Submitted: 11/09/2016 20:00  
Reported: 12/16/2016 10:54

Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC/MS Semivolatiles SW-846 8270D SIM Modified</b>					
10262	C2-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C2-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C2-Fluorenes	n.a.	N.D.	0.05	1
10262	C2-Naphthalenes	n.a.	N.D.	0.05	1
10262	C2-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C3-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C3-Fluoranthrenes/pyrenes	n.a.	N.D.	0.05	1
10262	C3-Fluorenes	n.a.	N.D.	0.05	1
10262	C3-Naphthalenes	n.a.	N.D.	0.05	1
10262	C3-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	C4-Benzanthrene/chrysenes	n.a.	N.D.	0.05	1
10262	C4-Naphthalenes	n.a.	N.D.	0.05	1
10262	C4-Phenanthrenes/anthracenes	n.a.	N.D.	0.05	1
10262	Chrysene	218-01-9	N.D.	0.05	1
10262	Dibenz (a, h) anthracene	53-70-3	N.D.	0.05	1
10262	Fluoranthene	206-44-0	N.D.	0.05	1
10262	Fluorene	86-73-7	N.D.	0.05	1
10262	Indeno (1, 2, 3-cd) pyrene	193-39-5	N.D.	0.05	1
10262	1-Methylnaphthalene	90-12-0	N.D.	0.05	1
10262	2-Methylnaphthalene	91-57-6	N.D.	0.05	1
10262	Naphthalene	91-20-3	N.D.	0.05	1
10262	Perylene	198-55-0	N.D.	0.05	1
10262	Phenanthrene	85-01-8	N.D.	0.05	1
10262	Pyrene	129-00-0	N.D.	0.05	1
<b>GC Volatiles SW-846 8015B</b>					
01635	TPH-GRO water C6-C10	n.a.	81	50	1
<b>Herbicides SW-846 8151A</b>					
10407	2,4-D	94-75-7	N.D.	0.52	1
10407	2,4-DB	94-82-6	N.D.	1.0	1
10407	2,4,5-T	93-76-5	N.D.	0.052	1
10407	2,4,5-TP	93-72-1	N.D.	0.052	1
<b>Pesticides/PCBs SW-846 8082</b>					
12013	PCB-1016	12674-11-2	N.D.	0.011	1
12013	PCB-1221	11104-28-2	N.D.	0.011	1
12013	PCB-1232	11141-16-5	N.D.	0.011	1
12013	PCB-1242	53469-21-9	N.D.	0.011	1
12013	PCB-1248	12672-29-6	N.D.	0.011	1
12013	PCB-1254	11097-69-1	N.D.	0.011	1
12013	PCB-1260	11096-82-5	N.D.	0.011	1
12013	PCB-1262	37324-23-5	N.D.	0.011	1
12013	PCB-1268	11100-14-4	N.D.	0.011	1
<b>GC Petroleum Hydrocarbons SW-846 8015B modified</b>					

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
Submitted: 11/09/2016 20:00  
Reported: 12/16/2016 10:54

Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
<b>GC Petroleum</b>		<b>SW-846 8015B modified</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>Hydrocarbons</b>					
11554	n-Decane	124-18-5	N.D.	1.0	1
11554	n-Docosane	629-97-0	N.D.	1.0	1
11554	n-Dodecane	112-40-3	N.D.	1.0	1
11554	n-Dotriacontane	544-85-4	N.D.	1.0	1
11554	n-Eicosane	112-95-8	N.D.	1.0	1
11554	n-Heneicosane	629-94-7	N.D.	1.0	1
11554	n-Hentriacontane	630-04-6	N.D.	1.0	1
11554	n-Heptacosane	593-49-7	N.D.	1.0	1
11554	n-Heptadecane	629-78-7	1.5	1.0	1
11554	n-Heptatriacontane	7194-84-5	0.45 J	1.0	1
11554	n-Hexacosane	630-01-3	N.D.	1.0	1
11554	n-Hexadecane	544-76-3	N.D.	1.0	1
11554	n-Hexatriacontane	630-06-8	N.D.	1.0	1
11554	n-Nonacosane	630-03-5	N.D.	1.0	1
11554	n-Nonadecane	629-92-5	N.D.	1.0	1
11554	n-Nonane	111-84-2	N.D.	1.0	1
11554	n-Nonatriacontane	7194-86-7	N.D.	1.0	1
11554	n-Octacosane	630-02-4	N.D.	1.0	1
11554	n-Octadecane	593-45-3	1.4	1.0	1
11554	n-Octatriacontane	7194-85-6	N.D.	1.0	1
11554	n-Pentacosane	629-99-2	N.D.	1.0	1
11554	n-Pentadecane	629-62-9	N.D.	1.0	1
11554	n-Pentatriacontane	630-07-9	N.D.	1.0	1
11554	Phytane	638-36-8	N.D.	1.0	1
11554	Pristane	1921-70-6	N.D.	1.0	1
11554	n-Tetracontane	4181-95-7	N.D.	1.0	1
11554	n-Tetracosane	646-31-1	N.D.	1.0	1
11554	n-Tetradecane	629-59-4	0.92 J	1.0	1
11554	n-Tetratriacontane	14167-59-0	N.D.	1.0	1
11554	Total TPH (C9-C40)	n.a.	N.D.	100	1
11554	n-Triacontane	638-68-6	N.D.	1.0	1
11554	n-Tricosane	638-67-5	N.D.	1.0	1
11554	n-Tridecane	629-50-5	N.D.	1.0	1
11554	n-Tritriacontane	630-05-7	N.D.	1.0	1
11554	n-Undecane	1120-21-4	N.D.	1.0	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Sufficient sample was not available to perform a second trial, therefore the data is reported.

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
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Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

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2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Dioxins/Furans</b>		<b>EPA 1613B October 1994</b>	<b>pg/l</b>	<b>pg/l</b>	
10915	2378-TCDD	1746-01-6	0.317 JQ	2.16	1
10915	12378-PeCDD	40321-76-4	0.399 JBQ	10.8	1
10915	123478-HxCDD	39227-28-6	0.212 JBQ	10.8	1
10915	123678-HxCDD	57653-85-7	N.D.	10.8	1
10915	123789-HxCDD	19408-74-3	N.D.	10.8	1
10915	1234678-HpCDD	35822-46-9	N.D.	10.8	1
10915	OCDD	3268-87-9	1.25 JBQ	21.6	1
10915	2378-TCDF	51207-31-9	N.D.	2.16	1
10915	12378-PeCDF	57117-41-6	N.D.	10.8	1
10915	23478-PeCDF	57117-31-4	0.546 JBQ	10.8	1
10915	123478-HxCDF	70648-26-9	0.143 JBQ	10.8	1
10915	123678-HxCDF	57117-44-9	N.D.	10.8	1
10915	123789-HxCDF	72918-21-9	0.740 JBQ	10.8	1
10915	234678-HxCDF	60851-34-5	N.D.	10.8	1
10915	1234678-HpCDF	67562-39-4	0.204 JBQ	10.8	1
10915	1234789-HpCDF	55673-89-7	0.586 JBQ	10.8	1
10915	OCDF	39001-02-0	1.27 JBQ	21.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	65	28 - 130
13C12-123789-HxCDD	64	28 - 130
13C12-1234678-HpCDD	98	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	59	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	90	26 - 138
13C12-OCDF	98	17 - 157

**Dioxins/Furans Data Qualifiers:**

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Reporting Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
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2 Tower Center Blvd  
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East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
F	Interference is present				
S	Saturation of detection signal				

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

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Project Name: Newark Bay Phase III Sediment Sampling

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East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>	<b>PCB</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB1	2051-60-7	N.D.	19.4	1
13708	PCB10	33146-45-1	N.D.	48.6	1
13708	PCB103	60145-21-3	N.D.	48.6	1
13708	PCB104	56558-16-8	N.D.	48.6	1
13708	PCB105	32598-14-4	N.D.	48.6	1
13708	PCB106	70424-69-0	N.D.	48.6	1
13708	PCB107	70424-68-9	N.D.	48.6	1
13708	PCB108+124	n.a.	N.D.	97.2	1
13708	PCB11	2050-67-1	N.D.	97.2	1
13708	PCB110+115	n.a.	N.D.	97.2	1
13708	PCB111	39635-32-0	N.D.	48.6	1
13708	PCB112	74472-36-9	N.D.	48.6	1
13708	PCB114	74472-37-0	N.D.	48.6	1
13708	PCB118	31508-00-6	N.D.	97.2	1
13708	PCB12+13	n.a.	N.D.	48.6	1
13708	PCB120	68194-12-7	N.D.	48.6	1
13708	PCB121	56558-18-0	N.D.	48.6	1
13708	PCB122	76842-07-4	N.D.	48.6	1
13708	PCB123	65510-44-3	N.D.	48.6	1
13708	PCB126	57465-28-8	N.D.	48.6	1
13708	PCB127	39635-33-1	N.D.	48.6	1
13708	PCB128+166	n.a.	N.D.	97.2	1
13708	PCB129+138+163	n.a.	N.D.	194	1
13708	PCB130	52663-66-8	N.D.	48.6	1
13708	PCB131	61798-70-7	N.D.	48.6	1
13708	PCB132	38380-05-1	N.D.	48.6	1
13708	PCB133	35694-04-3	N.D.	48.6	1
13708	PCB134	52704-70-8	N.D.	97.2	1
13708	PCB135+151	n.a.	N.D.	97.2	1
13708	PCB136	38411-22-2	N.D.	48.6	1
13708	PCB137	35694-06-5	N.D.	48.6	1
13708	PCB139+140	n.a.	N.D.	97.2	1
13708	PCB14	34883-41-5	N.D.	19.4	1
13708	PCB141	52712-04-6	N.D.	48.6	1
13708	PCB142	41411-61-4	N.D.	48.6	1
13708	PCB143	68194-15-0	N.D.	97.2	1
13708	PCB144	68194-14-9	N.D.	48.6	1
13708	PCB145	74472-40-5	N.D.	48.6	1
13708	PCB146	51908-16-8	N.D.	48.6	1
13708	PCB147+149	n.a.	N.D.	97.2	1
13708	PCB148	74472-41-6	N.D.	48.6	1
13708	PCB15	2050-68-2	N.D.	48.6	1
13708	PCB150	68194-08-1	N.D.	48.6	1
13708	PCB152	68194-09-2	N.D.	48.6	1
13708	PCB153+168	n.a.	N.D.	97.2	1
13708	PCB154	60145-22-4	N.D.	97.2	1
13708	PCB155	33979-03-2	N.D.	48.6	1
13708	PCB156+157	n.a.	N.D.	97.2	1
13708	PCB158	74472-42-7	N.D.	48.6	1

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
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Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
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2 Tower Center Blvd  
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37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>		<b>EPA 1668A PCB Congeners</b>	<b>pg/l</b>	<b>pg/l</b>	
13708	PCB159	39635-35-3	N.D.	48.6	1
13708	PCB16	38444-78-9	N.D.	19.4	1
13708	PCB160	41411-62-5	N.D.	19.4	1
13708	PCB161	74472-43-8	N.D.	48.6	1
13708	PCB162	39635-34-2	N.D.	48.6	1
13708	PCB164	74472-45-0	N.D.	48.6	1
13708	PCB165	74472-46-1	N.D.	48.6	1
13708	PCB167	52663-72-6	N.D.	48.6	1
13708	PCB169	32774-16-6	N.D.	48.6	1
13708	PCB17	37680-66-3	N.D.	19.4	1
13708	PCB170	35065-30-6	N.D.	48.6	1
13708	PCB171+173	n.a.	N.D.	97.2	1
13708	PCB172	52663-74-8	N.D.	48.6	1
13708	PCB174	38411-25-5	N.D.	48.6	1
13708	PCB175	40186-70-7	N.D.	48.6	1
13708	PCB176	52663-65-7	N.D.	48.6	1
13708	PCB177	52663-70-4	N.D.	48.6	1
13708	PCB178	52663-67-9	N.D.	48.6	1
13708	PCB179	52663-64-6	N.D.	48.6	1
13708	PCB18+30	n.a.	N.D.	48.6	1
13708	PCB180+193	n.a.	N.D.	97.2	1
13708	PCB181	74472-47-2	N.D.	48.6	1
13708	PCB182	60145-23-5	N.D.	48.6	1
13708	PCB183+185	n.a.	N.D.	97.2	1
13708	PCB184	74472-48-3	N.D.	48.6	1
13708	PCB186	74472-49-4	N.D.	48.6	1
13708	PCB187	52663-68-0	N.D.	48.6	1
13708	PCB188	74487-85-7	N.D.	48.6	1
13708	PCB189	39635-31-9	N.D.	48.6	1
13708	PCB19	38444-73-4	N.D.	19.4	1
13708	PCB190	41411-64-7	N.D.	48.6	1
13708	PCB191	74472-50-7	N.D.	48.6	1
13708	PCB192	74472-51-8	N.D.	48.6	1
13708	PCB194	35694-08-7	N.D.	48.6	1
13708	PCB195	52663-78-2	N.D.	48.6	1
13708	PCB196	42740-50-1	N.D.	48.6	1
13708	PCB197+200	n.a.	N.D.	97.2	1
13708	PCB198+199	n.a.	N.D.	97.2	1
13708	PCB2	2051-61-8	N.D.	19.4	1
13708	PCB20+28	n.a.	N.D.	48.6	1
13708	PCB201	40186-71-8	N.D.	48.6	1
13708	PCB202	2136-99-4	N.D.	97.2	1
13708	PCB203	52663-76-0	N.D.	48.6	1
13708	PCB204	74472-52-9	N.D.	48.6	1
13708	PCB205	74472-53-0	N.D.	48.6	1
13708	PCB206	40186-72-9	N.D.	48.6	1
13708	PCB207	52663-79-3	N.D.	48.6	1
13708	PCB208	52663-77-1	N.D.	48.6	1
13708	PCB209	2051-24-3	N.D.	48.6	1

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
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Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
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2 Tower Center Blvd  
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37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>		<b>pg/l</b>	<b>pg/l</b>	
13708	PCB21+33	n.a.	N.D.	48.6	1
13708	PCB22	38444-85-8	N.D.	19.4	1
13708	PCB23	55720-44-0	N.D.	19.4	1
13708	PCB24	55702-45-9	N.D.	19.4	1
13708	PCB25	55712-37-3	N.D.	19.4	1
13708	PCB26+29	n.a.	N.D.	48.6	1
13708	PCB27	38444-76-7	N.D.	19.4	1
13708	PCB3	2051-62-9	N.D.	48.6	1
13708	PCB31	16606-02-3	N.D.	48.6	1
13708	PCB32	38444-77-8	N.D.	19.4	1
13708	PCB34	37680-68-5	N.D.	19.4	1
13708	PCB35	37680-69-6	N.D.	19.4	1
13708	PCB36	38444-87-0	N.D.	19.4	1
13708	PCB37	38444-90-5	N.D.	19.4	1
13708	PCB38	53555-66-1	N.D.	19.4	1
13708	PCB39	38444-88-1	N.D.	19.4	1
13708	PCB4	13029-08-8	N.D.	48.6	1
13708	PCB40+71	n.a.	N.D.	97.2	1
13708	PCB41	52663-59-9	N.D.	97.2	1
13708	PCB42	36559-22-5	N.D.	48.6	1
13708	PCB43	70362-46-8	N.D.	48.6	1
13708	PCB44+47+65	n.a.	N.D.	97.2	1
13708	PCB45	70362-45-7	N.D.	48.6	1
13708	PCB46	41464-47-5	N.D.	19.4	1
13708	PCB48	70362-47-9	N.D.	48.6	1
13708	PCB49+69	n.a.	N.D.	97.2	1
13708	PCB5	16605-91-7	N.D.	19.4	1
13708	PCB50+53	n.a.	N.D.	97.2	1
13708	PCB51	68194-04-7	N.D.	48.6	1
13708	PCB52	35693-99-3	N.D.	48.6	1
13708	PCB54	15968-05-5	N.D.	48.6	1
13708	PCB55	74338-24-2	N.D.	48.6	1
13708	PCB56	41464-43-1	N.D.	48.6	1
13708	PCB57	70424-67-8	N.D.	48.6	1
13708	PCB58	41464-49-7	N.D.	48.6	1
13708	PCB59+62+75	n.a.	N.D.	97.2	1
13708	PCB6	25569-80-6	N.D.	19.4	1
13708	PCB60	33025-41-1	N.D.	48.6	1
13708	PCB61+70+74+76	n.a.	N.D.	19.4	1
13708	PCB63	74472-34-7	N.D.	48.6	1
13708	PCB64	52663-58-8	N.D.	48.6	1
13708	PCB66	32598-10-0	N.D.	48.6	1
13708	PCB67	73575-53-8	N.D.	48.6	1
13708	PCB68	73575-52-7	N.D.	48.6	1
13708	PCB7	33284-50-3	N.D.	19.4	1
13708	PCB72	41464-42-0	N.D.	48.6	1
13708	PCB73	74338-23-1	N.D.	48.6	1
13708	PCB77	32598-13-3	N.D.	48.6	1
13708	PCB78	70362-49-1	N.D.	48.6	1

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
Submitted: 11/09/2016 20:00  
Reported: 12/16/2016 10:54

Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>PCB Congeners</b>					
	<b>EPA 1668A PCB Congeners</b>		<b>pg/l</b>	<b>pg/l</b>	
13708	PCB79	41464-48-6	N.D.	48.6	1
13708	PCB8	34883-43-7	N.D.	48.6	1
13708	PCB80	33284-52-5	N.D.	48.6	1
13708	PCB81	70362-50-4	N.D.	48.6	1
13708	PCB82	52663-62-4	N.D.	48.6	1
13708	PCB83	60145-20-2	N.D.	97.2	1
13708	PCB84	52663-60-2	N.D.	19.4	1
13708	PCB85+116+117	n.a.	N.D.	97.2	1
13708	PCB86+87+97+109+119+125	n.a.	N.D.	194	1
13708	PCB88	55215-17-3	N.D.	48.6	1
13708	PCB89	73575-57-2	N.D.	48.6	1
13708	PCB9	34883-39-1	N.D.	19.4	1
13708	PCB90+101+113	n.a.	N.D.	194	1
13708	PCB91	68194-05-8	N.D.	48.6	1
13708	PCB92	52663-61-3	N.D.	48.6	1
13708	PCB93+100	n.a.	N.D.	194	1
13708	PCB94	73575-55-0	N.D.	48.6	1
13708	PCB95	38379-99-6	N.D.	194	1
13708	PCB96	73575-54-9	N.D.	48.6	1
13708	PCB98+102	n.a.	N.D.	194	1
13708	PCB99	38380-01-7	N.D.	97.2	1

The summation PCBs reported cannot be resolved under the chromatographic conditions used for sample analysis. The concentration(s) reported is the combined total of the PCBs and would be the maximum possible concentration for any individual PCB of interest.

Labeled Compounds	%Rec	Windows
13C12-PCB1	56	15 - 150
13C12-PCB3	59	15 - 150
13C12-PCB4	62	25 - 150
13C12-PCB15	74	25 - 150
13C12-PCB19	61	25 - 150
13C12-PCB28	72	30 - 135
13C12-PCB37	86	25 - 150
13C12-PCB54	92	25 - 150
13C12-PCB77	90	25 - 150
13C12-PCB81	87	25 - 150
13C12-PCB104	88	25 - 150
13C12-PCB105	105	25 - 150
13C12-PCB111	83	30 - 135
13C12-PCB114	97	25 - 150
13C12-PCB118	96	25 - 150
13C12-PCB123	100	25 - 150
13C12-PCB126	100	25 - 150
13C12-PCB155	99	25 - 150
13C12-PCB167	100	25 - 150
13C12-PCB169	96	25 - 150

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
Submitted: 11/09/2016 20:00  
Reported: 12/16/2016 10:54

Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

CAT No.	Analysis Name	CAS Number	Result	MRL	Dilution Factor
<b>Labeled Compounds</b>					
	<b>%Rec</b>	<b>Windows</b>			
13C12-PCB178	88	30 - 135			
13C12-PCB188	78	25 - 150			
13C12-PCB189	89	25 - 150			
13C12-PCB202	86	25 - 150			
13C12-PCB205	90	25 - 150			
13C12-PCB206	95	25 - 150			
13C12-PCB208	91	25 - 150			
13C12-PCB209	99	25 - 150			
13C12-PCB156+157	101	25 - 150			
13C12-PCB8	61	25 - 150			
13C12-PCB32	68	25 - 150			
13C12-PCB31	78	25 - 150			
13C12-PCB47	65	25 - 150			
13C12-PCB95	82	25 - 150			
13C12-PCB70	80	25 - 150			
13C12-PCB60	86	25 - 150			
13C12-PCB85	80	25 - 150			
13C12-PCB133	79	25 - 150			
13C12-PCB141	84	25 - 150			
13C12-PCB127	97	25 - 150			
13C12-PCB128	85	25 - 150			
13C12-PCB162	106	25 - 150			
13C12-PCB180	76	25 - 150			

**Dioxins/Furans Data Qualifiers:**

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Method Detection Limit and Minimum Reporting Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present
- S* Saturation of detection signal

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687682  
LL Group # 1731016  
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Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
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Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37701 SDG#: NB377-17FB

### Sample Comments

State of New Jersey Lab Certification No. PA011

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	VOCs 8260B	SW-846 8260B 25mL	1	I163262AA	11/21/2016 12:43	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I163262AA	11/21/2016 12:43	Kerri E Legerlotz	1
14241	SVOAs 8270D MINI	SW-846 8270D	1	16320WAM026	11/17/2016 16:56	Catherine E Bachman	1
10262	PAH, Alkyl PAH Water 8270D SIM	SW-846 8270D SIM Modified	1	16315WAI026	11/15/2016 08:50	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	16315WAI026	11/11/2016 08:00	Bradley W VanLeuven	1
11010	8270D BNA Extraction	SW-846 3510C	1	16320WAM026	11/16/2016 09:00	Bradley W VanLeuven	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	16321C20A	11/17/2016 14:48	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16321C20A	11/17/2016 14:48	Jeremy C Giffin	1
10407	Herbicides in Water	SW-846 8151A	1	163200022A	11/17/2016 11:17	Heather M Miller	1
12013	PCBs in Water - Low Level	SW-846 8082	1	163200018A	11/21/2016 18:50	Jessica L Miller	1
12026	PCB Waters Ext. - Low Level	SW-846 3510C	1	163200018A	11/16/2016 02:20	Denise L Trimby	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	163200022A	11/16/2016 08:00	David S Schrum	1
11554	TEPH C9-C40 incl. Totals	SW-846 8015B modified	1	163160001A	11/15/2016 20:04	Heather E Williams	1
11596	Water Ext. for SHC	SW-846 3510C	1	163160001A	11/11/2016 18:45	Shawn J McMullen	1
10915	Dioxins/Furans in Water - 1613	EPA 1613B October 1994	1	16317002	11/16/2016 00:53	Michael A Ziegler	1
13708	PCB Congeners 1668A Water	EPA 1668A PCB Congeners	1	16321003	11/18/2016 16:08	Michael A Ziegler	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	16317002	11/14/2016 15:30	Alex L Barton	1
13235	PCB Congeners in Water-SepF	EPA 1668A PCB Congeners	1	16321003	11/16/2016 14:50	Alex L Barton	1

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687683  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
Submitted: 11/09/2016 20:00  
Reported: 12/16/2016 10:54

Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37702 SDG#: NB377-18FB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
<b>Metals</b>					
		<b>SW-846 6010C</b>	<b>mg/l</b>	<b>mg/l</b>	
07070	Titanium in Water	7440-32-6	N.D.	0.0013	1
		<b>SW-846 6020</b>	<b>mg/l</b>	<b>mg/l</b>	
06023	Aluminum	7429-90-5	N.D.	0.0231	1
06024	Antimony	7440-36-0	N.D.	0.00048	1
06025	Arsenic	7440-38-2	N.D.	0.00068	1
06026	Barium	7440-39-3	N.D.	0.00096	1
06027	Beryllium	7440-41-7	N.D.	0.00011	1
06028	Cadmium	7440-43-9	N.D.	0.00019	1
06029	Calcium	7440-70-2	N.D.	0.0981	1
06031	Chromium	7440-47-3	N.D.	0.00059	1
06032	Cobalt	7440-48-4	N.D.	0.00020	1
06033	Copper	7440-50-8	N.D.	0.00052	1
06034	Iron	7439-89-6	N.D.	0.0337	1
06035	Lead	7439-92-1	N.D.	0.000090	1
06036	Magnesium	7439-95-4	N.D.	0.0117	1
06037	Manganese	7439-96-5	N.D.	0.00088	1
06039	Nickel	7440-02-0	N.D.	0.00085	1
06040	Potassium	7440-09-7	N.D.	0.0669	1
06041	Selenium	7782-49-2	N.D.	0.00044	1
06042	Silver	7440-22-4	N.D.	0.00012	1
06043	Sodium	7440-23-5	N.D.	0.0468	1
06045	Thallium	7440-28-0	N.D.	0.00016	1
06048	Vanadium	7440-62-2	N.D.	0.00020	1
06049	Zinc	7440-66-6	N.D.	0.0035	1
<b>Wet Chemistry</b>					
		<b>SW-846 9012A</b>	<b>mg/l</b>	<b>mg/l</b>	
08255	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
		<b>SW-846 9060A</b>	<b>mg/l</b>	<b>mg/l</b>	
00354	Total Organic Carbon (Quad)	n.a.	N.D.	0.50	1
	The reported result is the average of the following trials:				
	0	mg/l			
	0	mg/l			
	0	mg/l			
	0	mg/l			

Sample Description: NB3158FB Grab Water  
Newark Bay Phase III Sediment Sampling

LL Sample # WW 8687683  
LL Group # 1731016  
Account # 12798

Project Name: Newark Bay Phase III Sediment Sampling

Collected: 11/09/2016 11:40 by JH  
Submitted: 11/09/2016 20:00  
Reported: 12/16/2016 10:54

Tierra Solutions, Inc.  
2 Tower Center Blvd  
10th Floor  
East Brunswick NJ 08816

37702 SDG#: NB377-18FB

### Sample Comments

State of New Jersey Lab Certification No. PA011  
The analysis for mercury and methyl mercury was subcontracted to another laboratory. See attached reports.

B (for Inorganic tests) = estimated value: The result is  $\geq$  the Method Detection Limit (MDL)  
and  $<$  the Limit of Quantitation (LOQ).  
Note: LOQ = PQL

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
07070	Titanium in Water	SW-846 6010C	1	163260635004	11/23/2016	12:24	Joanne M Gates	1
06023	Aluminum	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06024	Antimony	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06025	Arsenic	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06026	Barium	SW-846 6020	1	163266050002D	11/24/2016	01:04	Sarah L Burt	1
06027	Beryllium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06028	Cadmium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06029	Calcium	SW-846 6020	1	163266050002B	11/24/2016	01:04	Sarah L Burt	1
06031	Chromium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06032	Cobalt	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06033	Copper	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06034	Iron	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06035	Lead	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06036	Magnesium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06037	Manganese	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06039	Nickel	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06040	Potassium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06041	Selenium	SW-846 6020	1	163266050002B	11/24/2016	01:04	Sarah L Burt	1
06042	Silver	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06043	Sodium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06045	Thallium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06048	Vanadium	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
06049	Zinc	SW-846 6020	1	163266050002A	11/24/2016	01:04	Sarah L Burt	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	163260635004	11/23/2016	05:04	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	163266050002	11/23/2016	05:30	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	16327117101A	11/22/2016	12:36	Dein K Bernot	1
00354	Total Organic Carbon (Quad)	SW-846 9060A	1	16316667601A	11/11/2016	13:55	Drew M Gerhart	1
08256	Cyanide Water Distillation	SW-846 9012A	1	16327117101A	11/22/2016	08:45	Nancy J Shoop	1



Tierra Solutions, Inc  
2 Tower Center Boulevard, 10th Floor  
East Brunswick NJ, 08816

Project: Mercury  
Project Number: NB377  
Project Manager: Carlie T. Thompson

**Reported:**  
15-Dec-16 10:25

**NB3158FB**  
**1611373-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-013 Methyl Hg Distillation for Water</b>											
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F612306	06-Dec-16	6L08026	07-Dec-16	EPA 1630/FGS-070	QM-12, U
<b>Sample Preparation: EPA 1631E BrCl Oxidation</b>											
Mercury	0.19	0.08	0.50	ng/L	1	F611454	11-Nov-16	6K23007	22-Nov-16	EPA 1631E	J

Eurofins Frontier Global Sciences, Inc.

*The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

## **Appendix C**

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/24</u>	Start Time: <u>0950</u>	End Time: <u>1000</u>
II.	Location ID: <u>384</u>		
	Water Depth and precise time measured <u>11.1 -0950</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SE</u>		
	- Temperature: <u>55</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>NO</u>		
	- River State: <u>LOW</u>		
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>384-1</u>	<u>678205.2</u>	<u>598244.7</u>
	<u>384-2</u>	<del><u>5859244.7</u></del> <small>PJD 10/24/16</small>	<del><u>598244</u></del>
		<u>678207.6</u>	<u>598256.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/24</u>	Start Time: <sup>157</sup> <del>0816</del> <u>915</u>	
		End Time: <u>0930</u>	
II.	Location ID: <u>385</u>		
	Water Depth and precise time measured <u>8.6 - 0915</u>		
III.	Physical Description: <u>Northern Newark Bay</u> <sup>jt</sup> <u>10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SE</u>		
	- Temperature: <u>55</u>		
	- Precipitation: <u>NONE</u>		
	- Cloud Cover: <u>NONE</u>		
	- River State: <u>Low</u>		
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> <u>es</u>		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>385-1</u>	<u>677797.8</u>	<u>598798.5</u>
	<u>385-2</u>	<u>677791.0</u>	<u>598806.1</u>
	<u>385-3</u>	<u>677771.4</u>	<u>598813.6</u>
	<u>385-4</u>	<u>677758.8</u>	<u>598832.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

8.6  
8.4  
8.1  
7.7

Time water depth recorded was added on 10/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 1)

P.D. 10/24/16

I.	Date: <u>386-1</u> <u>3<sup>rd</sup> 10/24</u>	Start Time: <u>1245</u>	End Time: <u>1300</u>
II.	Location ID: <u>386 -1245</u>		
	Water Depth and precise time measured <u>9.0</u>		
III.	Physical Description: <u>Northern Newark Bay # 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>E - Strong</u>		
	- Temperature: <u>55</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Yes</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		No
			<u>Yes</u>
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>386-1</u>	<u>677833.7</u>	<u>597326.5</u>
	<u>386-2</u>	<u>677845.2</u>	<u>597363.2</u>
VII.	Name of Person Responsible for Log: <u>P. Dougher</u>		

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/24</u>	Start Time: <u>0940</u>	
		End Time: <u>093045</u>	<small>150 p. 19/16</small>
II.	Location ID: <u>387-</u>		
	Water Depth and precise time measured <u>8.5 - 0945</u>		
III.	Physical Description: <u>Northern Newark Bay # 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SE</u>		
	- Temperature: <u>55</u>		
	- Precipitation: <u>NONE</u>		
	- Cloud Cover: <u>N/A</u>		
	- River State: <u>decreasing</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>387-1</u>	<u>677544.1</u>	<u>597924.7</u>
	<u>387-2</u>	<u>677536.9</u>	<u>597940.2</u>
VII.	Name of Person Responsible for Log: <u>P. Dougher</u>		

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9276



Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/24</u> Start Time: <u>1200</u> End Time: <u>1215</u>																																				
II.	Location ID: <u>390*</u> Water Depth and precise time measured <u>8.0 - 1200</u>																																				
III.	Physical Description: <u>Northern Newark Bay # 10/26/16</u>																																				
IV.	Weather at Time of Coring: - Wind Speed/Direction: <u>E</u> - Temperature: <u>55</u> - Precipitation: <u>NO</u> - Cloud Cover: <u>Yes</u> - River State: <u>Rising</u>																																				
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No																																				
VI.	Cores Collected: <table border="1"> <thead> <tr> <th>Core ID</th> <th>Northing (ft)</th> <th>Easting (ft)</th> </tr> </thead> <tbody> <tr> <td><u>390-1</u></td> <td><u>677176.6</u></td> <td><u>596995.1</u></td> </tr> <tr> <td><u>390-2</u></td> <td><u>677174.5</u> <small>RJD 10/24/16</small></td> <td><u>597014.2</u></td> </tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Core ID	Northing (ft)	Easting (ft)	<u>390-1</u>	<u>677176.6</u>	<u>596995.1</u>	<u>390-2</u>	<u>677174.5</u> <small>RJD 10/24/16</small>	<u>597014.2</u>																											
Core ID	Northing (ft)	Easting (ft)																																			
<u>390-1</u>	<u>677176.6</u>	<u>596995.1</u>																																			
<u>390-2</u>	<u>677174.5</u> <small>RJD 10/24/16</small>	<u>597014.2</u>																																			
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>																																				

\* Location 390 collected on October 24, 2016 was super-ceded by the core collected ~~from~~ from location 390 on November 2, 2016. JLC 5/19/17

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/24</u>		Start Time: <u>1330</u>
			End Time: <u>1345</u>
II.	Location ID: <u>391</u>		
	Water Depth and precise time measured <u>12.0 - 1330</u>		
III.	Physical Description: <u>Northern Newark Bay 10/26/16 JH</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>EAST strong</u>		
	- Temperature: <u>55-</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>YES</u>		
	- River State: <u>RISING</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes <input type="radio"/> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>391-1</u>	<u>676876.19</u>	<u>597597.7</u>
	<u>391-2</u>	<u>676876.0</u>	<u>597616.9</u>
VII.	Name of Person Responsible for Log: <u>P. Dougher</u>		

13/16  
21/22

Time water depth recorded was added on 11/24/17 during Q.C review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/24</u>	Start Time: <u>1130</u>	End Time: <u>1145</u>
II.	Location ID: <u>395</u>		
	Water Depth and precise time measured <u>6.7 - 1120</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SE</u>		
	- Temperature: <u>55</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>YES</u>		
	- River State: <u>RISING</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>395-1</u>	<u>676521.3</u>	<u>596670.7</u>
	<u>395-2</u>	<u>676521.11</u>	<u>596521.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/24</u>	Start Time: <u>1100</u>	End Time: <u>1115</u>
II.	Location ID: <u>399</u>		
	Water Depth and precise time measured <u>8.4 -1115</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SE</u>		
	- Temperature: <u>55</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Cloudy</u>		
	- River State: <u>High low</u> <small>P/D 10/24/16</small>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>399-1</u>	<u>675855.8</u>	<u>596325.3</u>
	<u>399-2</u>	<u>675836.2</u>	<u>596351.3</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>396 10/25</u>	Start Time: <u>1300</u>	
		End Time: <u>1315</u>	
II.	Location ID: <u>396</u>		
	Water Depth and precise time measured <u>11.7 - 1300</u>		
III.	Physical Description: <u>Northern Newark Bay # 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>W65T - 50kph</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Yes</u>		
	- River State: <u>RISING</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>396-1</u>	<u>670375.1</u>	<u>597681.9</u>
	<u>396-2</u>	<u>670378.1</u>	<u>597688.4</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>10/25</u> Start Time: <u>1215</u>	
	End Time: <u>1220</u>	
II.	Location ID: <u>400-1</u>	
	Water Depth and precise time measured <u>9.3 1215</u>	
III.	Physical Description: <u>Northern Newark Bay J<sup>th</sup> 10/26/16</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>W</u>	
	- Temperature: <u>50</u>	
	- Precipitation: <u>NO</u>	
	- Cloud Cover: <u>Yes</u>	
	- River State: <u>Rising</u>	
V.	Confirm ice in core storage container? (circle one) <u>Yes</u> No	
VI.	Cores Collected:	
	<u>Core ID</u>	<u>Northing (ft)</u>
	<u>400-1</u>	<u>675570.0</u>
	<u>400-2</u>	<u>675532.95</u>
		<u>Easting (ft)</u>
		<u>596956.7</u>
		<u>596954.4</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>	

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>10/25</u>	Start Time: <u>1140</u>	
		End Time: <u>1150</u>	
II.	Location ID: <u>401</u>		
	Water Depth and precise time measured <u>5.3 1140</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>SW</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>YES</u>	
	- River State:	<u>rising</u>	
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>401-1</u>	<u>674907.7</u>	<u>598279.4</u>
	<u>401-2</u>	<u>674907.8</u>	<u>598261.6</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/25</u>	Start Time: <u>1110</u>	End Time: <u>1115</u>
II.	Location ID: <u>404</u>		
	Water Depth and precise time measured <u>6.7 1110</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Yes</u>		
	- River State: <u>High</u>		
V.	Confirm ice in core storage container? (circle one)		No
			<input checked="" type="radio"/> Yes
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>404-1</u>	<u>674567.8</u>	<u>597292.7</u>
	<u>404-2</u>	<u>674564.3</u>	<u>597281.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>10/25</u> Start Time: <u>1050</u>	
	End Time: <u>1100</u>	
II.	Location ID: <u>405-1</u>	
	Water Depth and precise time measured <u>7.3 - 1050</u>	
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>SW</u>	
	- Temperature: <u>50</u>	
	- Precipitation: <u>NO</u>	
	- Cloud Cover: <u>YES</u>	
	- River State: <u>High</u>	
V.	Confirm ice in core storage container? (circle one) <u>Yes</u> No	
VI.	Cores Collected:	
	<u>Core ID</u>	<u>Northing (ft)</u>
	<u>405-1</u>	<u>674251.2</u>
	<u>405-2</u>	<u>674255.3</u>
		<u>Easting (ft)</u>
		<u>597954.5</u>
		<u>598000.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>	

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/25</u>	Start Time: <u>1020</u>	End Time: <u>1030</u>
II.	Location ID: <u>406-1</u>		
	Water Depth and precise time measured <u>B.G. - 1020</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>west</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Yes</u>		
	- River State: <u>high</u>		
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> Yes		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>406-1</u>	<u>674525.5</u>	<u>595798.1</u>
	<u>406-2</u>	<u>674530.1</u>	<u>595728.2</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/25</u>	Start Time: <u>0950</u>	
		End Time: <u>1000</u>	
II.	Location ID: <u>407</u>		
	Water Depth and precise time measured <u>9.0 - 0950</u>		
III.	Physical Description: <u>Northern Newark Bay #10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>WEST</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>YES</u>		
	- River State: <u>rising</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>407-1</u>	<u>674234.1</u>	<u>596309.2</u>
	<u>407-2</u>	<u>674231.5</u>	<u>596314.5</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		



Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/25</u>	Start Time: <u>0850</u>	
		End Time: <u>0900</u>	
II.	Location ID: <u>409</u>		
	Water Depth and precise time measured <u>9.2 - 0850</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>W62</u>		
	- Temperature: <u>50°</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>NPS</u>		
	- River State: <u>lower SINKING</u> <u>10/25/16</u>		
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> Yes		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>409-1</u>	<u>673584.3</u>	<u>597627.7</u>
	<u>409-2</u>	<u>673595.8</u>	<u>597627.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

22-0850  
15-0900

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/26</u>	Start Time: <u>1300</u>	End Time: <u>1315</u>
II.	Location ID: <u>371</u>		
	Water Depth and precise time measured <u>5.6 - 1300</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>NW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>High</u>		
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>371-1</u>	<u>686085.1</u>	<u>599917.2</u>
	<u>371-2</u>	<u>686079.6</u>	<u>599914.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/26</u>	Start Time: <u>1230</u>	
		End Time: <u>1240</u>	
II.	Location ID: <u>375</u>		
	Water Depth and precise time measured <u>8.8 - 1230</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>NW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>high</u>		
V.	Confirm ice in core storage container? (circle one)		No
			<input checked="" type="radio"/> Yes
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>375-1</u>	<u>684395.9</u>	<u>599927.9</u>
	<u>375-2</u>	<u>684396.10</u>	<u>599942.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>10/26</u>	Start Time: <u>1200</u>	
		End Time: <u>1215</u>	
II.	Location ID: <u>379</u>		
	Water Depth and precise time measured <u>6.1 1200</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10.5616</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>WNW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>high</u>		
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>379-1</u>	<u>683266.3</u>	<u>599183.4</u>
	<u>379-2</u>	<u>683269.3</u>	<u>599193.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>10/26</u> Start Time: <u>1040</u>	
	End Time: <u>1045</u>	
II.	Location ID: <u>383</u>	
	Water Depth and precise time measured <u>11.2 - 1040</u>	
III.	Physical Description: <u>Northern Newark Bay # 10/26/16</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>West</u>	
	- Temperature: <u>50</u>	
	- Precipitation: <u>NO</u>	
	- Cloud Cover: <u>Clear</u>	
	- River State: <u>Rising</u>	
V.	Confirm ice in core storage container? (circle one)	No
	<input checked="" type="radio"/> Yes	
VI.	Cores Collected:	
	Core ID	Northing (ft)
	<u>383-1</u>	<u>678449.1</u>
	<u>383-2</u>	<u>678446.4</u>
		Easting (ft)
		<u>597689.7</u>
		<u>597683.5</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>	

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/20</u>	Start Time: <u>1015</u>	End Time: <u>1020</u>
II.	Location ID: <u>389</u>		
	Water Depth and precise time measured <u>1015 - 6.7</u>		
III.	Physical Description: <u>Northern Newark Bay</u> <sup>3<sup>rd</sup></sup> <u>10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>West</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>389-1</u>	<u>677192.3</u>	<u>599384.0</u>
	<u>389-2</u>	<u>677191.0</u>	<u>599393.9</u>
VII.	Name of Person Responsible for Log: <u>P. Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/20</u>	Start Time: <u>0930</u>	End Time: <u>0950</u>
II.	Location ID: <u>392</u>		
	Water Depth and precise time measured <u>8.0' 0930</u>		
III.	Physical Description: <u>Northern Newark Bay 5<sup>th</sup> 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>West</u>		
	- Temperature: <u>45</u>		
	- Precipitation: <u>No</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>392-1</u>	<u>676563.3</u>	<u>598258.3</u>
	<u>392-2</u>	<u>676560.5</u>	<u>598252.4</u>
	<u>392-3</u>	<u>676538.4</u>	<u>598257.8</u>
	<u>392-4</u>	<u>676521.1</u>	<u>598254.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>393 10/20</u> <small>PJP 10/26/16</small>	Start Time: <u>015</u>	End Time: <u>020</u>
II.	Location ID: <u>393</u>		
	Water Depth and precise time measured <u>7.2 - 0915</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>West</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>No</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>rising</u>		
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>393-1</u>	<u>676223.0</u>	<u>598905.8</u>
	<u>393-2</u>	<u>676214.8</u>	<u>598925.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/26</u>	Start Time: <u>0815</u>	End Time: <u>0830</u>
II.	Location ID: <u>394</u>		
	Water Depth and precise time measured <u>5.6 - 0815</u>		
III.	Physical Description: <u>Northern Newark Bay # 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>WGST</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>CLEAR</u>		
	- River State: <u>NSKY</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>394-1</u>	<u>675907.2</u>	<u>599517.9</u>
	<u>394-2</u>	<u>675903.5</u>	<u>599502.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/26</u>	Start Time: <u>0845</u>	End Time: <u>0900</u>
II.	Location ID: <u>398</u>	Water Depth and precise time measured <u>7.7 - 0845</u>	
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>W</u>	
	- Temperature:	<u>40</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>Clear</u>	
	- River State:	<u>Rising</u>	
V.	Confirm ice in core storage container? (circle one)	<input checked="" type="radio"/> Yes	<input type="radio"/> No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>398-1</u>	<u>675574.6</u>	<u>598600.1</u>
	<u>398-2</u>	<u>675557.0</u>	<u>598582.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		



**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>10/26</u>	Start Time: <u>1100</u>	
		End Time: <u>1125</u>	
II.	Location ID: <u>403</u>		
	Water Depth and precise time measured <u>9.2 1100</u>		
III.	Physical Description: <u>Northern Newark Bay # 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>403-1</u>	<u>674868.4</u>	<u>596593.4</u>
	<u>403-2</u>	<u>674875.9</u>	<u>596594.5</u>
	<u>403-3</u>	<u>674839.4</u>	<u>596606.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/27</u>	Start Time: <u>1120</u>	
		End Time: <u>1130</u>	
II.	Location ID: <u>376</u>		
	Water Depth and precise time measured <u>12.0 - 1130</u>		
III.	Physical Description: <u>N. N.B.</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>EAST</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>YES</u>		
	- Cloud Cover: <u>YES</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		No
			<input checked="" type="radio"/> Yes
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>376</u>	<u>684147.8</u>	<u>600437.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>10/27</u>	Start Time: <u>1050</u>	
		End Time: <u>1100</u>	
II.	Location ID: <u>378</u>		
	Water Depth and precise time measured <u>B-D - 1100</u>		
III.	Physical Description: <u>N. N-B.</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>EAST</u>	
	- Temperature:	<u>40</u>	
	- Precipitation:	<u>YPS</u>	
	- Cloud Cover:	<u>YPS</u>	
	- River State:	<u>rising</u>	
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>378</u>	<u>603471.1</u>	<u>600038.5</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		























3 cores

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>11/1</u> Start Time: <u>1300</u> End Time: <u>1310</u>																																																
II.	Location ID: <u>317</u> Water Depth and precise time measured <u>10.4 - 1300</u>																																																
III.	Physical Description: <u>N.E. corner of N.B.</u>																																																
IV.	Weather at Time of Coring: - Wind Speed/Direction: <u>NW</u> - Temperature: <u>50</u> - Precipitation: <u>NO</u> - Cloud Cover: <u>Clear</u> - River State: <u>decreasing</u>																																																
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No																																																
VI.	Cores Collected: <table border="1"><thead><tr><th>Core ID</th><th>Northing (ft)</th><th>Easting (ft)</th></tr></thead><tbody><tr><td><u>317-1</u></td><td><u>681176.4</u></td><td><u>599069.5</u></td></tr><tr><td><u>317-2</u></td><td><u>681171.8</u></td><td><u>599067.4</u></td></tr><tr><td><u>317-3</u></td><td><u>681159.7</u></td><td><u>599064.5</u></td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>	Core ID	Northing (ft)	Easting (ft)	<u>317-1</u>	<u>681176.4</u>	<u>599069.5</u>	<u>317-2</u>	<u>681171.8</u>	<u>599067.4</u>	<u>317-3</u>	<u>681159.7</u>	<u>599064.5</u>																																				
Core ID	Northing (ft)	Easting (ft)																																															
<u>317-1</u>	<u>681176.4</u>	<u>599069.5</u>																																															
<u>317-2</u>	<u>681171.8</u>	<u>599067.4</u>																																															
<u>317-3</u>	<u>681159.7</u>	<u>599064.5</u>																																															
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>																																																





















**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/1</u>	Start Time: <u>1150</u>	End Time: <u>1200</u>
II.	Location ID: <u>320</u>		
	Water Depth and precise time measured <u>8.7 - 1200</u>		
III.	Physical Description: <u>North Newark Bay</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>NW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>clear</u>		
	- River State: <u>high</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>320</u>	<u>680029.4</u>	<u>601135.3</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		





**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/2</u>	Start Time: <u>0810</u>	End Time: <u>0815</u>
II.	Location ID: <u>349</u>		
	Water Depth and precise time measured <u>5.6 0810</u>		
III.	Physical Description: <u>N.B. - COF</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SW</u>		
	- Temperature: <u>45</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> Yes		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>349-1</u>	<u>672008.7</u>	<u>592459.3</u>
	<u>349-2</u>	<u>672310.3</u>	<u>592461.2</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		





\* 3 cores +

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/2</u>	Start Time: <u>915</u>	
		End Time: <u>925</u>	
II.	Location ID: <u>339</u>		
	Water Depth and precise time measured <u>10.0 - 915</u>		
III.	Physical Description: <u>NB-CDF</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>SW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>CLEAR</u>		
	- River State: _____		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>339-1</u>	<u>674084.1</u>	<u>593750.2</u>
	<u>339-2</u>	<u>674090.3</u>	<u>593752.9</u>
	<u>339-3</u>	<u>674098.5</u>	<u>593758.2</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

915 21  
 920 18  
 925 16















**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/2</u> Start Time: <u>1240</u>	
	End Time: <u>1245</u>	
II.	Location ID: <u>334</u>	
	Water Depth and precise time measured <u>6.3- 1245</u>	
III.	Physical Description: <u>WEST BANK. South of R/R</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>S</u>	
	- Temperature: <u>50</u>	
	- Precipitation: <u>NO</u>	
	- Cloud Cover: <u>Clear</u>	
	- River State: <u>receding</u>	
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No	
VI.	Cores Collected:	
	<u>Core ID</u>	<u>Northing (ft)</u>
	<u>334</u>	<u>678367.5</u>
		<u>Easting (ft)</u>
		<u>596209.0</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>	

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/2</u>		Start Time: <u>1310</u>
			End Time: <u>1315</u>
II.	Location ID: <u>390</u>		
	Water Depth and precise time measured <u>11.2 - 1315</u>		
III.	Physical Description: <u>N.E. CORNER OF BAY - SWITH of R/R</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>S</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>Clear</u>	
	- River State:	<u>R2-clearing</u>	
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes <input type="radio"/> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>390</u>	<u>677174.8</u>	<u>596967.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/3</u>		Start Time: <u>1110</u>
			End Time: <u>1115</u>
II.	Location ID: <u>341</u>		
	Water Depth and precise time measured <u>12.0 - 1115</u>		
III.	Physical Description: <u>Middle of N.B. EAST OF channel</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>S-10</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>overcast</u>	
	- River State:	<u>high</u>	
V.	Confirm ice in core storage container? (circle one)		
		<input checked="" type="radio"/> Yes	<input type="radio"/> No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>341</u>	<u>673009.4</u>	<u>596271.5</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/3</u>	Start Time: <u>0750</u>	
		End Time: <u>0800</u>	
II.	Location ID: <u>332</u>		
	Water Depth and precise time measured <u>5.8 - 0800</u>		
III.	Physical Description: <u>S. R/R Bridge</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>S</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>overcast</u>		
	- River State: <u>rising</u>		
V.	Confirm ice in core storage container? (circle one)		Yes      No
VI.	Cores Collected:		
	<u>Core ID</u> <u>332</u>	<u>Northing (ft)</u> <u>679050.6</u>	<u>Easting (ft)</u> <u>599938.1</u>
			<u>→ Moved South Utility</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		



**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/3</u>	Start Time: <u>0830</u>	End Time: <u>0835</u>
II.	Location ID: <u>382</u>		
	Water Depth and precise time measured <u>12 - 0835</u>		
III.	Physical Description: <u>S. R/R Bndge</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>S-10</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Overcast</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> Yes		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>382</u>	<u>67889.1</u>	<u>598276.2</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		



**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/3</u>		Start Time: <u>0910</u>
			End Time: <u>0915</u>
II.	Location ID: <u>329</u>		
	Water Depth and precise time measured <u>8.6- 0915</u>		
III.	Physical Description: <u>North of gas line</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>S-10</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>overcast</u>	
	- River State:	<u>Rising</u>	
V.	Confirm ice in core storage container? (circle one)		<input checked="" type="radio"/> Yes <input type="radio"/> No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>329</u>	<u>678746.4</u>	<u>600746.4</u>
		<u>* moved slightly S. out of gasline buffer (250')</u>	
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		



**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/3</u>	Start Time: <u>0945</u>	
		End Time: <u>0950</u>	
II.	Location ID: <u>327</u>		
	Water Depth and precise time measured <u>12.0950</u>		
III.	Physical Description: <u>North Newark Bay</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>5-10</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>overcast</u>	
	- River State:	<u>high</u>	
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>327</u>	<u>679690.2</u>	<u>599213.3</u>
	<u>327-2</u>	<u>679694.3</u>	<u>599223.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

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**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/3</u>	Start Time: <u>1040</u>	End Time: <u>1050</u>
II.	Location ID: <u>326</u>	Water Depth and precise time measured <u>14.7 - 1040</u>	
III.	Physical Description: <u>west bank, north of R/R</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>S-10</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>No</u>	
	- Cloud Cover:	<u>overcast</u>	
	- River State:	<u>High</u>	
V.	Confirm ice in core storage container? (circle one)	<input checked="" type="radio"/> Yes	<input type="radio"/> No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>326-1</u>	<u>680676.6</u>	<u>597286.7</u>
	<u>326-2</u>	<u>680691.2</u>	<u>597291.8</u>
	<u>326-3</u>	<u>680714.0</u>	<u>597286.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>10/26</u>	Start Time: <u>1400</u>	End Time: <u>1415</u>
II.	Location ID: <u>370</u>		
	Water Depth and precise time measured <u>9.3 - 1400</u>		
III.	Physical Description: <u>Northern Newark Bay J# 10/26/16</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>NW</u>		
	- Temperature: <u>50</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>going out</u>		
V.	Confirm ice in core storage container? (circle one)		No
			<input checked="" type="radio"/> Yes
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>370-1</u>	<u>686523.2</u>	<u>606761.9</u>
	<u>370-2</u>	<u>686515.1</u>	<u>606765.2</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		













**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/7</u>	Start Time: <u>1010</u>	End Time: <u>1015</u>
II.	Location ID: <u>342</u>		
	Water Depth and precise time measured <u>8.7 - 1015</u>		
III.	Physical Description: <u>middle of bay</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>N-20</u>		
	- Temperature: <u>42</u>		
	- Precipitation: <u>No</u>		
	- Cloud Cover: <u>clear</u>		
	- River State: <u>rising</u>		
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> Yes		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>342</u>	<u>672475.9</u>	<u>697379.4</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		





**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/7</u>	Start Time: <u>0920</u>	
		End Time: <u>0930</u>	
II.	Location ID: <u>355</u>		
	Water Depth and precise time measured <u>9.3 - 0930</u>		
III.	Physical Description: <u>middle of bay</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>N-20</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>Rising</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/>	Yes	No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>355</u>	<u>671024-6</u>	<u>592 594626.3</u> <small>PJD 11/7/16</small>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/7</u> Start Time: <u>1020</u>	
	End Time: <u>1030</u>	
II.	Location ID: <u>343</u>	
	Water Depth and precise time measured <u>5.6 - 1030</u>	
III.	Physical Description: <u>middle of bay - East bank</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>N-20</u>	
	- Temperature: <u>40</u>	
	- Precipitation: <u>NO</u>	
	- Cloud Cover: <u>clear</u>	
	- River State: <u>rising</u>	
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No	
VI.	Cores Collected:	
	<u>Core ID</u>	<u>Northing (ft)</u>
	<u>343</u>	<u>67241.5</u>
		<u>Easting (ft)</u>
		<u>597246.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>	

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11-7-16</u>		Start Time: <u>0720</u>
			End Time: <u>0730</u>
II.	Location ID: <u>358</u>		
	Water Depth and precise time measured <u>8.3'</u> <u>0730</u>		
III.	Physical Description: <u>Middle of Bay</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>N-15</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>LOW</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>358</u>	<u>69416.4</u>	<u>593993.6</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

3 cores

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>11/9</u> Start Time: <u>1030</u> End Time: <u>1040</u>																																																
II.	Location ID: <u>182</u> Water Depth and precise time measured <u>8.7 1030</u>																																																
III.	Physical Description: <u>SW. corner</u>																																																
IV.	Weather at Time of Coring: - Wind Speed/Direction: <u>W-5</u> - Temperature: <u>40</u> - Precipitation: <u>light</u> - Cloud Cover: <u>overcast</u> - River State: <u>low</u>																																																
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No																																																
VI.	Cores Collected: <table border="1"><thead><tr><th>Core ID</th><th>Northing (ft)</th><th>Easting (ft)</th></tr></thead><tbody><tr><td><u>182-1</u></td><td><u>664346.5</u></td><td><u>588990.4</u></td></tr><tr><td><u>182-2</u></td><td><u>664326.8</u></td><td><u>588981.8</u></td></tr><tr><td><u>182-2</u></td><td><u>664311.7</u></td><td><u>588967.1</u></td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>	Core ID	Northing (ft)	Easting (ft)	<u>182-1</u>	<u>664346.5</u>	<u>588990.4</u>	<u>182-2</u>	<u>664326.8</u>	<u>588981.8</u>	<u>182-2</u>	<u>664311.7</u>	<u>588967.1</u>																																				
Core ID	Northing (ft)	Easting (ft)																																															
<u>182-1</u>	<u>664346.5</u>	<u>588990.4</u>																																															
<u>182-2</u>	<u>664326.8</u>	<u>588981.8</u>																																															
<u>182-2</u>	<u>664311.7</u>	<u>588967.1</u>																																															
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>																																																





**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/9</u>	Start Time: <u>1140</u>	End Time: <u>1145</u>
II.	Location ID: <u>179</u>		
	Water Depth and precise time measured <u>7.9 - 1145</u>		
III.	Physical Description: <u>SW corner</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>W-5</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>light</u>		
	- Cloud Cover: <u>overcast</u>		
	- River State: <u>rising</u>		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>179</u>	<u>065492.7</u>	<u>537413.2</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		















**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/9</u>	Start Time: <u>1415</u>	
		End Time: <u>1420</u>	
II.	Location ID: <u>363</u>		
	Water Depth and precise time measured <u>11.2- 1415</u>		
III.	Physical Description: <u>middle</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>W-10</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>yes</u>	
	- Cloud Cover:	<u>overcast</u>	
	- River State:	<u>rising</u>	
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> Yes		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>363</u>	<u>667538.1</u>	<u>594070.2</u>
	<u>363</u>	<u>667510.8</u>	<u>594084.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

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**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

<b>I.</b>	Date: <u>11/10</u>	Start Time: <u>0745</u>	End Time: <u>0750</u>
<b>II.</b>	Location ID: <u>199</u>		
	Water Depth and precise time measured <u>6.6 - 0750</u>		
<b>III.</b>	Physical Description: <u>SW corner</u>		
<b>IV.</b>	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>N-10</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>clear</u>		
	- River State: <u>falling</u>		
<b>V.</b>	Confirm ice in core storage container? (circle one)		No
			<input checked="" type="radio"/> Yes
<b>VI.</b>	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>199</u>	<u>663460.9</u>	<u>584943.9</u>
<b>VII.</b>	Name of Person Responsible for Log: <u>P.Dougher</u>		



**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/10</u>	Start Time: <u>0820</u>	End Time: <u>0830</u>
II.	Location ID: <u>194</u>		
	Water Depth and precise time measured <u>8.0 - 0820</u>		
III.	Physical Description: <u>SW CORNER</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>N-10</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>Clear</u>		
	- River State: <u>Falling</u>		
V.	Confirm ice in core storage container? (circle one) <u>Yes</u> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>194-1</u>	<u>663527.2</u>	<u>586392.0</u>
	<u>194-2</u>	<u>663519.4</u>	<u>586395.2</u>
	<u>194-3</u>	<u>663508.4</u>	<u>586398.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

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14  
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**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/10</u>		Start Time: <u>0840</u>
			End Time: <u>0845</u>
II.	Location ID: <u>190</u>		
	Water Depth and precise time measured <u>8.0 - 0845</u>		
III.	Physical Description: <u>SW corner</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>N-10</u>	
	- Temperature:	<u>40</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>clear</u>	
	- River State:	<u>Falling</u>	
V.	Confirm ice in core storage container? (circle one)		
		<input checked="" type="radio"/> Yes	No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>190</u>	<u>664101.4</u>	<u>586693.7</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>11/16</u>	Start Time: <u>0858</u>	End Time: <u>0855</u>
II.	Location ID: <u>189</u>		
	Water Depth and precise time measured <u>45. 0855</u>		
III.	Physical Description: <u>SW CORNER</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>N-10</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>clear</u>		
	- River State: <u>falling</u>		
V.	Confirm ice in core storage container? (circle one) <u>Yes</u> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>189</u>	<u>664397.8</u>	<u>536121.1</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		





**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>11/10</u>	Start Time: <u>0935</u>	
		End Time: <u>0940</u>	
II.	Location ID: <u>191</u>		
	Water Depth and precise time measured <u>8.8 - 0940</u>		
III.	Physical Description: <u>SW CORNER</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>N-10</u>	
	- Temperature:	<u>45°</u>	
	- Precipitation:	<u>No</u>	
	- Cloud Cover:	<u>Clear</u>	
	- River State:	<u>Falling</u>	
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>191-1</u>	<u>663805.8</u>	<u>587257.7</u>
	<u>191-2</u>	<u>663807.6</u>	<u>587270.0</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		



















**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>11/16</u>		Start Time: <u>1200</u>
			End Time: <u>1205</u>
II.	Location ID: <u>225</u>		
	Water Depth and precise time measured <u>8.6- 1205</u>		
III.	Physical Description: <u>SW corner</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>W-15</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>clear</u>	
	- Cloud Cover:	<u>clear</u>	
	- River State:	<u>falling</u>	
V.	Confirm ice in core storage container? (circle one)		No
			<input checked="" type="radio"/>
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>225-1</u>	<u>661165.4</u>	<u>584345.2</u>
	<u>225-2</u>	<u>661171.2</u>	<u>584341.4</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/16</u>	Start Time: <u>1220</u>	
		End Time: <u>1230</u>	
II.	Location ID: <u>224</u>		
	Water Depth and precise time measured <u>7.2 @ 1220</u>		
III.	Physical Description: <u>SW corner</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>W-15</u>	
	- Temperature:	<u>50</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>Clear</u>	
	- River State:	<u>falling</u>	
V.	Confirm ice in core storage container? (circle one) <u>Yes</u> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>224-1</u>	<u>661311.4</u>	<u>583724.8</u>
	<u>224-2</u>	<u>661319.2</u>	<u>583759.9</u>
	<u>224-3</u>	<u>661306.2</u>	<u>583760.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

















**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/30</u> Start Time: <u>0805</u>	
	End Time: <u>0810</u>	
II.	Location ID: <u>249</u>	
	Water Depth and precise time measured <u>11.2 - 0805</u>	
III.	Physical Description: <u>S. Shooter Island</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>N - Low</u>	
	- Temperature: <u>45</u>	
	- Precipitation: <u>NONE</u>	
	- Cloud Cover: <u>Overcast</u>	
	- River State: <u>High</u>	
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No	
VI.	Cores Collected:	
	<u>Core ID</u>	<u>Northing (ft)</u>
	<u>249</u>	<u>658364.8</u> <small>PJD W36/16</small>
		<u>659100.7</u>
		<u>6591071.1</u>
		<u>584400.1</u>
		<u>584405.7</u>
		<u>584389.4</u>
VII.	Name of Person Responsible for Log: <u>P. Dougher</u>	

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 1)

I.	Date: <u>11/30</u>	Start Time: <u>1045</u>	
		End Time: <u>1050</u>	
II.	Location ID: <u>238</u>		
	Water Depth and precise time measured <u>7.2 1045</u>		
III.	Physical Description: <u>S. Bay.</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>N-5</u>	
	- Temperature:	<u>45</u>	
	- Precipitation:	<u>rain</u>	
	- Cloud Cover:	<u>yes</u>	
	- River State:	<u>falling</u>	
V.	Confirm ice in core storage container? (circle one)		No
			<u>Yes</u>
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>238-1</u>	<u>659536.7</u>	<u>584316.8</u>
	<u>238-2</u>	<u>659539.3</u>	<u>584323.4</u>
	<u>238-3</u>	<u>659558.1</u>	<u>584314.2</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

Time water depth recorded added on 1/24/17 during QC review of the Phase III Field Report.

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>11/30</u>	Start Time: <u>1100</u>
		End Time: <u>1105</u> <small>P/D 11/30/16</small>
II.	Location ID: <u>237</u>	
	Water Depth and precise time measured <u>9.8 -1100</u>	
III.	Physical Description: <u>S. BM</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>5. N-10</u>	
	- Temperature: <u>9.5</u>	
	- Precipitation: <u>rain</u>	
	- Cloud Cover: <u>YES</u>	
	- River State: <u>falling</u>	
V.	Confirm ice in core storage container? (circle one)	<input checked="" type="radio"/> Yes <input type="radio"/> No
VI.	Cores Collected:	
	<u>Core ID</u> <u>237</u>	<u>Northing (ft)</u> <u>660005.1</u>
		<u>Easting (ft)</u> <u>593755.4</u>
VII.	Name of Person Responsible for Log: <u>P. Dougher</u>	



















**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>12/5</u>	Start Time: <u>1120</u>	
		End Time: <u>1130</u>	
II.	Location ID: <u>228</u>		
	Water Depth and precise time measured <u>7.8 1120</u>		
III.	Physical Description: <u>Kill Van Kill</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>W-15 mph</u>	
	- Temperature:	<u>46</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>Clear</u>	
	- River State:	<u>High</u>	
V.	Confirm ice in core storage container? (circle one)		No
	<input checked="" type="radio"/> Yes		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>228-1</u>	<u>661526.3</u>	<u>581778.2</u>
	<u>228-2</u>	<u>661527.1</u>	<u>581789.2</u>
	<u>228-3</u>	<u>661527.4</u>	<u>581799.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>12/5</u>		Start Time: <u>1140</u>
			End Time: <u>1145</u>
II.	Location ID: <sup>SEDIMENT</sup> <u>SW 222</u>		
	Water Depth and precise time measured <u>10.0 1145</u>		
III.	Physical Description: <u>SW corner bay</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>W-15</u>	
	- Temperature:	<u>40</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>Clear</u>	
	- River State:	<u>High</u>	
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>222</u>	<u>661834.9</u>	<u>532699.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		





**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>1215</u> Start Time: <u>1225</u>	
	End Time: <u>1230</u>	
II.	Location ID: <u>223</u>	
	Water Depth and precise time measured <u>7.5 - 1230</u>	
III.	Physical Description: <u>SW. corner bay</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>15.W</u>	
	- Temperature: <u>40</u>	
	- Precipitation: <u>NO</u>	
	- Cloud Cover: <u>Clear</u>	
	- River State: <u>Falling</u>	
V.	Confirm ice in core storage container? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No	
VI.	Cores Collected:	
	<u>Core ID</u> <u>223</u>	<u>Northing (ft)</u> <u>661569.9</u>
		<u>Easting (ft)</u> <u>58319 583193.4</u> <small>FD 12/15/11</small>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>	





**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>12/5</u> Start Time: <u>1310</u>	
	End Time: <u>1315</u>	
II.	Location ID: <u>214</u>	
	Water Depth and precise time measured <u>8.8 - 1315</u>	
III.	Physical Description: <u>SW. corner</u>	
IV.	Weather at Time of Coring:	
	- Wind Speed/Direction: <u>W-10</u>	
	- Temperature: <u>50</u>	
	- Precipitation: <u>NO</u>	
	- Cloud Cover: <u>clear</u>	
	- River State: <u>falling</u>	
V.	Confirm ice in core storage container? (circle one) <u>Yes</u> No	
VI.	Cores Collected:	
	<u>Core ID</u>	<u>Northing (ft)</u>
	<u>214</u>	<u>662110.1</u>
	<small>03012/5/11</small>	<u>Easting (ft)</u>
		<u>584932.2</u>
VII.	Name of Person Responsible for Log: <u>P.Douger</u>	













**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>12/6</u>		Start Time: <u>1010</u>
			End Time: <u>1020</u>
II.	Location ID: <u>251</u>		
	Water Depth and precise time measured <u>8.0 - 1010</u>		
III.	Physical Description: <u>KILL VAN KILL</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction:	<u>10-W</u>	
	- Temperature:	<u>40</u>	
	- Precipitation:	<u>NO</u>	
	- Cloud Cover:	<u>overcast</u>	
	- River State:	<u>rising</u>	
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes <input type="radio"/> No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>251-1</u>	<u>657795.0</u>	<u>586490.2</u>
	<u>251-2</u>	<u>657795.1</u>	<u>586504.8</u>
	<u>251-3</u>	<u>657794.8</u>	<u>586480.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		



**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: <u>12/6</u>	Start Time: <u>1115</u>	
		End Time: <u>1125</u>	
II.	Location ID: <u>246</u>		
	Water Depth and precise time measured <u>6.5 - 1115</u>		
III.	Physical Description: <u>KILLVAN KILL</u>		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: <u>10-W</u>		
	- Temperature: <u>40</u>		
	- Precipitation: <u>NO</u>		
	- Cloud Cover: <u>overcast</u>		
	- River State: <u>rising</u>		
V.	Confirm ice in core storage container? (circle one)      Yes      No		
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>246-1</u>	<u>659880.3</u>	<u>581677.1</u>
	<u>246-2</u>	<u>659885.7</u>	<u>581667.9</u>
VII.	Name of Person Responsible for Log: <u>P.Dougher</u>		

















**CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 1)

I.	Date: _____ <u>12/7</u> _____	Start Time: <u>0845</u>	
		End Time: <u>0850</u>	
II.	Location ID: _____ <u>188</u> _____		
	Water Depth and precise time measured _____ <u>7 - 0845</u> _____		
III.	Physical Description: _____ <u>SW Cor</u> _____		
IV.	Weather at Time of Coring:		
	- Wind Speed/Direction: _____ <u>N-10</u> _____		
	- Temperature: _____ <u>40</u> _____		
	- Precipitation: _____ <u>NO</u> _____		
	- Cloud Cover: _____ <u>overcast</u> _____		
	- River State: _____ <u>LOW</u> _____		
V.	Confirm ice in core storage container? (circle one)		
	<input checked="" type="radio"/> Yes		No
VI.	Cores Collected:		
	<u>Core ID</u>	<u>Northing (ft)</u>	<u>Easting (ft)</u>
	<u>188-1</u>	<u>663485.1</u>	<u>589266.8</u>
	<u>188-2</u>	<u>663499.2</u>	<u>589269.2</u>
VII.	Name of Person Responsible for Log: <u>P. Dougher</u>		

## **Appendix D**

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>384-1</u> Water Depth and precise time measured <u>11:1 - 0950</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678210</u> - Easting (ft): <u>598243</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678205.2</u> - Easting (ft): <u>598244.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth <sup>units</sup> were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>384</u>
VII.	Water Depth at Time of Coring (ft): <u>11.1</u> Precise Time When Water Depth Was Measured <u>0950</u>
VIII.	Start Time of Coring (24-hour): <u>0950</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <sup>#1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (in): <u>18"</u></li> <li>- Actual Penetration (in): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <u>(NO)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>384</u>
XIII.	Recovery: <sup>5# 1/24/17</sup> - Recovery (ft): <u>17"</u> - Recovery (%): <u>94</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <hr/> <hr/> <hr/> <hr/> <p style="font-size: small;">If Recovery (%) ≥ 75%, then recovery is acceptable.          If Recovery (%) &lt; 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>384</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530

Accepted By ZML Company Arcadis Date 10/25 Time 0741

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>384-2</u> Water Depth and precise time measured <u>11.0' - 1000</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678216</u> - Easting (ft): <u>598243</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678207.6</u> - Easting (ft): <u>598256.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depths units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.  
 Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>384-2</u>
VII.	Water Depth at Time of Coring (ft): <u>11.00</u> Precise Time When Water Depth Was Measured <u>1000</u>
VIII.	Start Time of Coring (24-hour): <u>0950</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <sup># 1/24/17</sup> - Target Penetration (in): <u>18"</u> - Actual Penetration (in): <u>18"</u> - Penetration Achieved (Y or N): _____  Refusal? (circle one): Yes <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>384-2</u>
XIII.	Recovery: <sup># 1/24/17</sup> - Recovery (ft): <u>18"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>384-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By NDC Company Arcadis Date 10/25 Time 0740

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>305</u> Water Depth and precise time measured <u>8.6 -0915</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677800</u> - Easting (ft): <u>598796</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677797.8</u> - Easting (ft): <u>598798.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches during QC review of the Phase III Field Report on 1/24/17.

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>385</u>
VII.	Water Depth at Time of Coring (ft): <u>8.6</u> Precise Time When Water Depth Was Measured <u>0915</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0916</u>
IX.	Penetration: - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>385</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By NDC Company Arcadis Date 10/25 Time 0740

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>385-2</u> Water Depth and precise time measured <u>8.4 - 0918</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677800</u> - Easting (ft): <u>598796</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677791.0</u> - Easting (ft): <u>598806.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: 10/24
VI.	Core ID: 385-2
VII.	Water Depth at Time of Coring (ft): 8.4 Precise Time When Water Depth Was Measured 0918
VIII.	Start Time of Coring (24-hour): 0918 End Time of Coring (24-hour): 0919
IX.	Penetration: <sup># 1/24/17</sup> - Target Penetration (ft): 12" - Actual Penetration (ft): 12" - Penetration Achieved (Y or N):  Refusal? (circle one): Yes <input checked="" type="radio"/> No <input type="radio"/> Depth of Refusal
X.	PID Reading: N/A  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>395-2</u>
XIII.	Recovery: <u>11/29/17</u> - Recovery (ff): <u>12<sup>4</sup></u> - Recovery (%): <u>100%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>385-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By ZML Company Arcadis Date 10/25 Time 0741

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QReview of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>395-3</u> Water Depth and precise time measured <u>8.1 - 0920</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>67700</u> - Easting (ft): <u>598796</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677771.4</u> - Easting (ft): <u>598813.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17  
 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>385.3</u>
VII.	Water Depth at Time of Coring (ft): <u>8.1</u> Precise Time When Water Depth Was Measured <u>0920</u>
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0921</u>
IX.	Penetration: <div style="margin-left: 40px;"> <sup>on 1/24/17</sup>        - Target Penetration (ft): <u>13"</u>        - Actual Penetration (ft): <u>12"</u>        - Penetration Achieved (Y or N): <u>Y</u>         Refusal? (circle one): Yes <input type="checkbox"/> <u>No</u> Depth of Refusal _____     </div>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>285-3</u>
XIII.	Recovery: <u># 1/29/17</u> - Recovery (ft): <u>18"</u> - Recovery (%): <u>100%</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <p>If Recovery (%) <math>\geq</math> 75%, <u>then</u> recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, <u>then</u> refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:    

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>385-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530

Accepted By NDC Company Arcadis Date 10/25 Time 0740

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>385-4</u> Water Depth and precise time measured <u>7.7 - 0930</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677860</u> - Easting (ft): <u>598796</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677758.8</u> - Easting (ft): <u>598832.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/29/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>385-4</u>
VII.	Water Depth at Time of Coring (ft): <del>0</del> <sup>0.0102041</sup> <u>7.7</u> Precise Time When Water Depth Was Measured <u>0930</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0931</u>
IX.	Penetration: - Target Penetration (ft): <u>2'</u> - Actual Penetration (ft): <u>2'</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>385-4</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By NDC Company Arcadis Date 10/25 Time 0740

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>386</u> Water Depth and precise time measured <u>9.0 - 1245</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677830</u> - Easting (ft): <u>597327</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <sup>RJD</sup> <sub>10/24/16</sub> <u>677833.7</u> - Easting (ft): <u>597324.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depths units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>386</u>
VII.	Water Depth at Time of Coring (ft): <u>1245</u> Precise Time When Water Depth Was Measured <u>9:05</u> <sup>2# 1/24/17</sup>
VIII.	Start Time of Coring (24-hour): <u>1245</u> End Time of Coring (24-hour): <u>1300</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>16"</u> <sup>1/24/17</sup></li> <li>- Actual Penetration (ft): <u>16"</u> <sup>1/24/17</sup></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>386</u>
XIII.	<p>Recovery: <u>10/24/17</u></p> <p>- Recovery (ft): <u>12</u></p> <p>- Recovery (%): <u>75%</u></p> <p style="text-align: center;"><math>\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p style="text-align: center;"><u> </u> <u> </u> <u> </u> <u> </u></p> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p><u> </u> <u> </u> <u> </u></p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>386</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1700

Accepted By ZML Company Arcadis Date 10/25 Time 0747

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>386-2</u> Water Depth and precise time measured <u>9.0 -1300</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677830</u> - Easting (ft): <u>597327</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677845.2</u> - Easting (ft): <u>597363.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>386</u>
VII.	Water Depth at Time of Coring (ft): <u>1300</u> <u>5<sup>th</sup></u> <u>1/24/17</u> Precise Time When Water Depth Was Measured <u>9<sup>2</sup></u>
VIII.	Start Time of Coring (24-hour): <u>1245</u> End Time of Coring (24-hour): <u>1300</u>
IX.	Penetration: <u>3<sup>rd</sup> 1/24/17</u> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24/16</u>
XII.	Core ID: <u>386</u>
XIII.	Recovery: <u>11/24/17</u> - Recovery (in): <u>16"</u> - Recovery (%): <u>88%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>386</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1700  
 Accepted By NDC Company Arcadis Date 10/25 Time 0745  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>387</u> Water Depth and precise time measured <u>8.6 - 0940</u>
III.	Sediment Collection Method (circle one): - <u>Vibracoring</u>
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677547</u> - Easting (ft): <u>597920</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677544.1</u> - Easting (ft): <u>597924.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depths in feet were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>307</u>
VII.	Water Depth at Time of Coring (ft): <u>8.5</u> Precise Time When Water Depth Was Measured <u>0940</u>
VIII.	Start Time of Coring (24-hour): <u>0940</u> End Time of Coring (24-hour): <u>0945</u>
IX.	Penetration: <u>JA 1/24/17</u> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected on 1/24/17 to indicate inches during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>70/24</u>
XII.	Core ID: <u>387</u>
XIII.	Recovery: <u>7/24/17</u> - Recovery (ft): <u>18"</u> - Recovery (%): <u>100%</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <p style="font-size: small;">If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>387</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By ZML Company Arcadis Date 10/25 Time 0741

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>3B7-2</u> Water Depth and precise time measured <u>8.0 0945</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677547</u> - Easting (ft): <u>597920</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677536.9</u> - Easting (ft): <u>597940.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAD</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation during QC review of the Phase III Field Report on 1/24/17.  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during  
 QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>387.2</u>
VII.	Water Depth at Time of Coring (ft): <u>80</u> Precise Time When Water Depth Was Measured <u>0945</u>
VIII.	Start Time of Coring (24-hour): <u>0940</u> End Time of Coring (24-hour): <u>0945</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>21"</u></li> <li>- Actual Penetration (ft): <u>21"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during Q Review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>387-2</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (ft): <u>21"</u> - Recovery (%): <u>100%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NONE</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>387.2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By NDC Company ARCADIS Date 10/25 Time 0740

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>388</u> Water Depth and precise time measured <u>7.7' - 0800</u>
III.	Sediment Collection Method (circle one): - <u>Vibracoring</u>
IV.	Coordinates. Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677224</u> - Easting (ft): <u>598583</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677220</u> - Easting (ft): <u>598580.5</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>388</u>
VII.	Water Depth at Time of Coring (ft): <u>7.7</u> Precise Time When Water Depth Was Measured <u>0800</u>
VIII.	Start Time of Coring (24-hour): <u>0300</u> End Time of Coring (24-hour): <u>0801</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>1</u></li> <li>- Actual Penetration (ft): <u>1</u></li> <li>- Penetration Achieved <input checked="" type="radio"/> Y or N): _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>388</u>
XIII.	Recovery: <ul style="list-style-type: none"> <li>- Recovery (ft): <u>1</u></li> <li>- Recovery (%): <u>100%</u></li> </ul> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then</u> recovery is acceptable.  <u>If Recovery (%) &lt; 75%, then</u> refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"> <li>- <u>Retained for Processing</u></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>300</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By Julianne Hegerky Company Arcadis Date 10/25 Time 0730

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>398-2</u> Water Depth and precise time measured <u>7.6 - 0815</u>
III.	Sediment Collection Method (circle one): <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677224</u> - Easting (ft): <u>598583</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677233.7</u> - Easting (ft): <u>598583.36</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>388-2</u>
VII.	Water Depth at Time of Coring (ft): <u>7.6</u> Precise Time When Water Depth Was Measured <u>0915</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0916</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>1</u></li> <li>- Actual Penetration (ft): <u>1</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>3882</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (f): <u>9"</u> - Recovery (%): <u>75%</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$  Gaps Identified  <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>390-1</u> Water Depth and precise time measured <u>8.0 - 1215</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677176</u> - Easting (ft): <u>596992</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677174.5</u> - Easting (ft): <u>597014.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depths were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>390-1</u>
VII.	Water Depth at Time of Coring (ft): <u>8.00</u> Precise Time When Water Depth Was Measured <u>1215</u>
VIII.	Start Time of Coring (24-hour): <u>1200</u> End Time of Coring (24-hour): <u>1215</u>
IX.	Penetration: <sup>JK 1/24/17</sup> - Target Penetration (ft): <u>12</u> <u>15"</u> - Actual Penetration (ft): <u>12</u> <u>15"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>390-1</u>
XIII.	Recovery: <u>5/124/17</u> - Recovery (in): <u>12</u> - Recovery (%): <u>30%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - Retained for Processing - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>390-1</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1700  
 Accepted By NDC Company Arcadis Date 10/25 Time 0745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>390-2</u> Water Depth and precise time measured <u>8.0 - 1200</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677176</u> - Easting (ft): <u>596992</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677176.0</u> - Easting (ft): <u>596995.1</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>54A</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>390-2</u>
VII.	Water Depth at Time of Coring (ft): <u>9.00</u> Precise Time When Water Depth Was Measured <u>1200</u>
VIII.	Start Time of Coring (24-hour): <u>1200</u> End Time of Coring (24-hour): <u>1215</u>
IX.	Penetration: <u>5*1/24/17</u> - Target Penetration (ft): <u>12</u> - Actual Penetration (ft): <u>10</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>390-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1200  
Accepted By ZML Company Arcadis Date 10/25 Time 0742

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>391</u> Water Depth and precise time measured <u>12.0 - <del>433</del> <del>4300</del> 1330</u> <small>P.D. 10/24/16</small>
III.	Sediment Collection Method (circle one): - <u>Vibracoring</u>
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676883</u> - Easting (ft): <u>597597</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676876.19</u> - Easting (ft): <u>597597.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 10/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>10/24</u>
VI.	Core ID: <u>391</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> <small>PJD 10/24/16</small> Precise Time When Water Depth Was Measured <u>1300 1330</u>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1315 1330</u> <small>PJD 10/24/16</small>
IX.	Penetration: <u>J# 10/24/17</u>
	<ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Recovery (%) was added on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>391</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ft): <u>16</u> - Recovery (%): <u>89</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <p style="font-size: small;">If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>391</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1700

Accepted By ZML Company Arcadis Date 10/25 Time 0743

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>391-2</u> Water Depth and precise time measured <u>1330</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="radio"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676883</u> - Easting (ft): <u>597597</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676876.0</u> - Easting (ft): <u>597616.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>391</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> Precise Time When Water Depth Was Measured <u>1330</u>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1330</u>
IX.	Penetration: <sup>JA 1/24/17</sup> - Target Penetration (ft): <u>21"</u> - Actual Penetration (ft): <u>21"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>391</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1700

Accepted By NDC Company Arcadis Date 10/25 Time 0745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/24</u>
II.	Core ID: <u>395</u> Water Depth and precise time measured <u>4.7 -1120</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676516</u> - Easting (ft): <u>596661</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676521.3</u> - Easting (ft): <u>596670.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>10/24</u>
VI.	Core ID: <u>305</u>
VII.	Water Depth at Time of Coring (ft): <u>1120</u> Precise Time When Water Depth Was Measured: <u>6.7</u> <sup>2<sup>nd</sup> 1/24/17</sup>
VIII.	Start Time of Coring (24-hour): <u>1120</u> End Time of Coring (24-hour): <u>1140</u>
IX.	Penetration: <sup>5<sup>th</sup> 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>22"</u></li> <li>- Actual Penetration (ft): <u>22"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Recovery (%) added on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>1/24</u> <small>PJD/10/24/16</small>
XII.	Core ID: <u>399-2</u> <u>395</u>
XIII.	Recovery: <del>1/24/17</del> <small>PJD/10/24/16</small> - Recovery (ft): <u>19</u> <u>22"</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <small>If Recovery (%) ≥ 75%, then recovery is acceptable. If Recovery (%) &lt; 75%, then refer to SOP No. 3</small>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>395</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time ~~1700~~ 1530  
 Accepted By ZML Company Arcadis Date 10/25 Time 0742

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>395-2</u> Water Depth and precise time measured <u>6.7 - 1145</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676516</u> - Easting (ft): <u>596661</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676521.1</u> - Easting (ft): <u>596521.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SIAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>395</u>
VII.	Water Depth at Time of Coring (ft): <u>0.7</u> Precise Time When Water Depth Was Measured <u>1145</u>
VIII.	Start Time of Coring (24-hour): <u>1120</u> End Time of Coring (24-hour): <u>1145</u>
IX.	Penetration: <u>JA 10/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>13"</u></li> <li>- Actual Penetration (ft): <u>13"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>395-2</u>
XIII.	Recovery: <u>JH 1/24/17</u> - Recovery (ft): <u>13"</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>395-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1700  
 Accepted By NDC Company Arcadis Date 10/25 Time 0745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>396-1</u> Water Depth and precise time measured <u>11.7 1300</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676373</u> - Easting (ft): <u>597682</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676375.1</u> - Easting (ft): <u>597681.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>396-1</u>
VII.	Water Depth at Time of Coring (ft): <u>11.7</u> Precise Time When Water Depth Was Measured <u>1300</u>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1315</u>
IX.	Penetration: <sup>#1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>396-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1300  
 Accepted By JH Company Arcadis Date 10/25 Time 1500  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>396-2</u> Water Depth and precise time measured <u>11.2 - 195</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676373</u> - Easting (ft): <u>597682</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>670378.1</u> - Easting (ft): <u>597688.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/25</u>
VI.	Core ID: <u>396-2</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured <u>1315</u>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1315</u>
IX.	Penetration: <u>5 1/24/17</u>
	<ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>396-2</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ft): <u>20"</u> - Recovery (%): <u>83%</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>396-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1315  
 Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>397-1</u> Water Depth and precise time measured <u>7.0 - 1250</u>
III.	Sediment Collection Method (circle one):  - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675897</u> - Easting (ft): <u>597937</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675899.2</u> - Easting (ft): <u>597939.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>397</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>1250</u>
VIII.	Start Time of Coring (24-hour): <u>1250</u> End Time of Coring (24-hour): <u>1300</u>
IX.	Penetration: <u># 1/24/17</u> - Target Penetration (ft): <u>24"</u> - Actual Penetration (ft): <u>24"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate <sup>JTH</sup> 1/24/17 inches on 1/24/17 during Q Review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>397-1</u>
XIII.	Recovery: <ul style="list-style-type: none"> <li>- Recovery (ft): <u>24</u></li> <li>- Recovery (%): <u>100%</u></li> </ul> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <p style="font-size: small;"> <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u> </p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"> <li>- <u>Retained for Processing</u></li> <li>- Rejected</li> </ul> If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>397-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1250

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>397.2</u> Water Depth and precise time measured <u>2.0 - 1300</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675897</u> - Easting (ft): <u>597937</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675889.3</u> - Easting (ft): <u>597939.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>10/25</u>
VI.	Core ID: <u>397</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>1300</u>
VIII.	Start Time of Coring (24-hour): <u>1250</u> End Time of Coring (24-hour): <u>1300</u>
IX.	Penetration: <sup>#12917</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Recovery (%) was added on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>397.2</u>
XIII.	Recovery: <u>#1/24/17</u> - Recovery (ft): <u>21"</u> - Recovery (%): <u>88</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>397-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1300

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>399</u> Water Depth and precise time measured <u>8:2-1100</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675857</u> - Easting (ft): <u>596336</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675355.8</u> - Easting (ft): <u>596325.3</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QReview of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>399</u>
VII.	Water Depth at Time of Coring (ft): <u>8.2</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1100</u> End Time of Coring (24-hour): <u>1115</u>
IX.	Penetration: <sup># 1/24/17</sup> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <input checked="" type="radio"/> Y <input type="radio"/> N Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> No Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>399</u>
XIII.	<p>Recovery: <u>jt 1/24/17</u></p> <p>- Recovery (ft): <u>10</u></p> <p>- Recovery (%): <u>100</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>NO</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>399</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By ZML Company Arcadis Date 10/25 Time 0741

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QCreview of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>399.2</u> Water Depth and precise time measured <u>8.4 -1115</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675857</u> - Easting (ft): <u>596330</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675836.2</u> - Easting (ft): <u>596351.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/24</u>
VI.	Core ID: <u>399-2</u>
VII.	Water Depth at Time of Coring (ft): <u>8.4</u> Precise Time When Water Depth Was Measured <u>1115</u>
VIII.	Start Time of Coring (24-hour): <u>1100</u> End Time of Coring (24-hour): <u>1115</u>
IX.	Penetration: <sup>#1024/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>19"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>399-2</u>
XIII.	Recovery: <u>3/1/24/17</u> - Recovery (ft): <u>19"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <hr/> <hr/> <hr/> <hr/> If Recovery (%) ≥ 75%, then recovery is acceptable. If Recovery (%) < 75%, then refer to SOP No. 3
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/24</u>
XVI.	Core ID: <u>399-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 1530  
 Accepted By NDC Company Arcadis Date 10/25 Time 0740

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>400-1</u> Water Depth and precise time measured <u>9.3 #2 12:15</u> <small>8/12/16</small>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675557</u> - Easting (ft): <u>596951</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675570.0</u> - Easting (ft): <u>596956.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAD</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>400-1</u>
VII.	Water Depth at Time of Coring (ft): <u>9.3</u> Precise Time When Water Depth Was Measured <u>1215</u>
VIII.	Start Time of Coring (24-hour): <u>1215</u> End Time of Coring (24-hour): <u>1220</u>
IX.	Penetration: <u>1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12"</u></li> <li>- Actual Penetration (ft): <u>6"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>400-1</u>
XIII.	<p>Recovery: <u>5/12/17</u></p> <p>- Recovery (ft): <u>11"</u></p> <p>- Recovery (%): <u>92</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>NO</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>406-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1215  
 Accepted By JH Company Arcadis Date 10/25 Time 1500  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>16/25</u>
II.	Core ID: <u>400-2</u> Water Depth and precise time measured <u>9.3 1220</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>475557</u> - Easting (ft): <u>596957</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675532.95</u> - Easting (ft): <u>596954.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>10/25</u>
VI.	Core ID: <u>400-2</u>
VII.	Water Depth at Time of Coring (ft): <u>9.3</u> Precise Time When Water Depth Was Measured <u>1220</u>
VIII.	Start Time of Coring (24-hour): <u>1215</u> End Time of Coring (24-hour): <u>1220</u>
IX.	Penetration: <u>JH 1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QReview of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>400-2</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (ft): <u>24"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>400-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1220

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>401-1</u> Water Depth and precise time measured <u>5.3 - 1140</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674910</u> - Easting (ft): <u>598277</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674907.7</u> - Easting (ft): <u>598279.4</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>5AA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/29/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>401-1</u>
VII.	Water Depth at Time of Coring (ft): <u>5.3</u> Precise Time When Water Depth Was Measured <u>1140</u>
VIII.	Start Time of Coring (24-hour): <u>1140</u> End Time of Coring (24-hour): <u>1150</u>
IX.	Penetration: <sup>jt 1/29/17</sup> - Target Penetration (ft): <u>12'</u> - Actual Penetration (ft): <u>12'</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>401-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1140

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>401-2</u> Water Depth and precise time measured <u>5.3-1150</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674910</u> - Easting (ft): <u>598277</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674907.8</u> - Easting (ft): <u>598261.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>4012</u>
VII.	Water Depth at Time of Coring (ft): <u>6.3</u> Precise Time When Water Depth Was Measured <u>1156</u>
VIII.	Start Time of Coring (24-hour): <u>1140</u> End Time of Coring (24-hour): <u>1150</u>
IX.	Penetration: <u>*1/24/17</u> - Target Penetration (ft): <u>13'</u> - Actual Penetration (ft): <u>15'</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>401-2</u>
XIII.	Recovery: <u>JH 1/24/17</u> - Recovery (ft): <u>13'</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>no</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>401-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1150

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>404-1</u> Water Depth and precise time measured <u>6.7 - 1110</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674570</u> - Easting (ft): <u>597291</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674567.8</u> - Easting (ft): <u>597292.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>404-1</u>
VII.	Water Depth at Time of Coring (ft): <u>1110</u> Precise Time When Water Depth Was Measured <u>6.7</u> <sup>JS# 1/24/17</sup>
VIII.	Start Time of Coring (24-hour): <u>1110</u> End Time of Coring (24-hour): <u>1115</u>
IX.	Penetration: <sup>JS# 1/24/17</sup> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(N)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>404-1</u>
XIII.	<p>Recovery: <sup>at 1/24/17</sup></p> <p>- Recovery (ft): <u>17"</u></p> <p>- Recovery (%): <u>94</u></p> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <p><small>If Recovery (%) ≥ 75%, then recovery is acceptable.          If Recovery (%) &lt; 75%, then refer to SOP No. 3</small></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>404-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher.</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1110  
 Accepted By JH Company Arcadis Date 10/25 Time 1500  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>404-2</u> Water Depth and precise time measured <u>67.115</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674570</u> - Easting (ft): <u>597291</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674564.3</u> - Easting (ft): <u>597281.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>404-2</u>
VII.	Water Depth at Time of Coring (ft): <u>6.7</u> Precise Time When Water Depth Was Measured <u>1115</u>
VIII.	Start Time of Coring (24-hour): <u>1110</u> End Time of Coring (24-hour): <u>1115</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>20"</u></li> <li>- Actual Penetration (ft): <u>20"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>404-2</u>
XIII.	Recovery: <u>JK 1/24/17</u> - Recovery (in): <u>20"</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>404-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1115  
 Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>405-1</u> Water Depth and precise time measured <u>7.3 1050</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674247</u> - Easting (ft): <u>597954</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674251.2</u> - Easting (ft): <u>597954.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JRA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>405-1</u>
VII.	Water Depth at Time of Coring (ft): <u>7.3 1050 20' 1/24/17</u> Precise Time When Water Depth Was Measured _____
VIII.	Start Time of Coring (24-hour): <u>1050</u> End Time of Coring (24-hour): <u>1100</u>
IX.	Penetration: - Target Penetration (ft): <u>134</u> - Actual Penetration (ft): <u>18</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QReview of the Phase III Field Report.

Recovery (%) was added on 1/24/17 during QReview of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>405-1</u>
XIII.	<p>Recovery: <sup>1/24/17</sup></p> <ul style="list-style-type: none"><li>- Recovery (ft): <u>18"</u></li><li>- Recovery (%): <u>100</u></li></ul> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>NO</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>405-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1050  
 Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>409-2</u> Water Depth and precise time measured <u>7.3 - 100</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674247</u> - Easting (ft): <u>597954</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674255.3</u> - Easting (ft): <u>598000.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>405.2</u>
VII.	Water Depth at Time of Coring (ft): <u>7.3</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1650</u> End Time of Coring (24-hour): <u>1100</u>
IX.	Penetration: <sup>JH 10/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>13<sup>v</sup></u></li> <li>- Actual Penetration (ft): <u>13<sup>v</sup></u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>405-12</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1100

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>406-1</u> Water Depth and precise time measured <u>8.9-1020</u>
III.	Sediment Collection Method (circle one):  - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674525</u> - Easting (ft): <u>595726</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674525.5</u> - Easting (ft): <u>595798.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>406-1</u>
VII.	Water Depth at Time of Coring (ft): <u>8.9</u> Precise Time When Water Depth Was Measured <u>1020</u>
VIII.	Start Time of Coring (24-hour): <u>1020</u> End Time of Coring (24-hour): <u>1030</u>
IX.	Penetration: <u>J# 1/29/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>2'</u></li> <li>- Actual Penetration (ft): <u>2'</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Recovery (%) was added on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>406-1</u>
XIII.	Recovery: <u>5/24/17</u> - Recovery (ft): <u>21"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <p>If Recovery (%) ≥ 75%, then recovery is acceptable. If Recovery (%) &lt; 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>406-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1620

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>406-2</u> Water Depth and precise time measured <u>8.9-1030</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674525</u> - Easting (ft): <u>595726</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674530.1</u> - Easting (ft): <u>595728.2</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>406-2</u>
VII.	Water Depth at Time of Coring (ft): <u>8.9 - 1030</u> <i>↓ J# 1/24/17</i> Precise Time When Water Depth Was Measured _____
VIII.	Start Time of Coring (24-hour): <u>1020</u> End Time of Coring (24-hour): <u>1030</u>
IX.	Penetration: <i>J# 1/24/17</i> - Target Penetration (in): <u>13"</u> - Actual Penetration (in): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>466-2</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ft): <u>17"</u> - Recovery (%): <u>94</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>406-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 10:50

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>407-1</u> Water Depth and precise time measured <u>9.00 - 0950</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674230</u> - Easting (ft): <u>596304</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674234.1</u> - Easting (ft): <u>596304.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>407</u>
VII.	Water Depth at Time of Coring (ft): <u>9.0</u> Precise Time When Water Depth Was Measured <u>0956</u>
VIII.	Start Time of Coring (24-hour): <u>0950</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <u>jt 10/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QReview of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>407</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ft): <u>15</u> - Recovery (%): <u>83%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>407</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 0950

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>407.2</u> Water Depth and precise time measured <u>0900 - 1000</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674230</u> - Easting (ft): <u>596304</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674231.5</u> - Easting (ft): <u>596314.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>10/25</u>
VI.	Core ID: <u>407-2</u>
VII.	Water Depth at Time of Coring (ft): <u>9.0</u> Precise Time When Water Depth Was Measured <u>10:00</u>
VIII.	Start Time of Coring (24-hour): <u>0950</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <sup>JA 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <u>(N)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>407-2</u>
XIII.	<p>Recovery: <u>JA 1/24/17</u></p> <ul style="list-style-type: none"> <li>- Recovery (ft): <u>15<sup>ft</sup></u></li> <li>- Recovery (%): <u>83%</u></li> </ul> <p align="center"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math> </p> <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"> <li>- <u>Retained for Processing</u></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>407-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 1200  
 Accepted By JH Company Arcadis Date 10/25 Time 1500  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>408</u> Water Depth and precise time measured <u>7.2 - 0920</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673907</u> - Easting (ft): <u>596968</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>6733909.0</u> - Easting (ft): <u>596968.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SIA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>408</u>
VII.	Water Depth at Time of Coring (ft): <u>0920</u> Precise Time When Water Depth Was Measured <u>7.2</u> <sup>5:30 1/24/17</sup>
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0930</u>
IX.	Penetration: <sup>5:30 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>16"</u></li> <li>- Actual Penetration (ft): <u>16"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 3 of 4)**

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>408</u>
XIII.	<p>Recovery: <u>on 1/24/17</u></p> <p>- Recovery (ft): <u>14"</u></p> <p>- Recovery (%): <u>88</u></p> <p align="center"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math> </p> <p>Gaps Identified</p> <p align="center"><u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"> <li>- <u>Retained for Processing</u></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>408</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 0930

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>408-2</u> Water Depth and precise time measured <u>7.0 0930</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>473907</u> - Easting (ft): <u>596968</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>473911.0</u> - Easting (ft): <u>596961.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>408-2</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>0930</u>
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0930</u>
IX.	Penetration: <u>JK 10/24/17</u> - Target Penetration (ft): <u>16"</u> - Actual Penetration (ft): <u>16"</u> - Penetration Achieved ( <input checked="" type="radio"/> or N): _____ Refusal? (circle one): Yes <input type="radio"/> <input checked="" type="radio"/> No Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>408-2</u>
XIII.	<p>Recovery: <u>5<sup>th</sup> 10/24/17</u> <u>12</u>      <u>14"</u></p> <p>- Recovery (ft): _____</p> <p>- Recovery (%): <u>99</u> _____</p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>408-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 0930  
 Accepted By JH Company Arcadis Date 10/25 Time 1500  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>409</u> Water Depth and precise time measured <u>9.2 - 0850</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673584</u> - Easting (ft): <u>597631</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673584.3</u> - Easting (ft): <u>597627.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>409</u>
VII.	Water Depth at Time of Coring (ft): <u>9.2</u> Precise Time When Water Depth Was Measured <u>0350</u>
VIII.	Start Time of Coring (24-hour): <u>0350</u> End Time of Coring (24-hour): <u>900</u>
IX.	Penetration: <u>1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>27"</u></li> <li>- Actual Penetration (ft): <u>22"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>409</u>
XIII.	<p>Recovery: <u>5</u> <u>1/24/17</u> <u>in</u> <u>22"</u></p> <p>- Recovery (ft): _____</p> <p>- Recovery (%): <u>100</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>NO</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>409</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Douger</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 0950

Accepted By JH Company Arcadis Date 10/25 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/25</u>
II.	Core ID: <u>409-<sup>10/25/16</sup>222</u> Water Depth and precise time measured <u>9 - 9:00</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673584</u> - Easting (ft): <u>597631</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673359.8</u> - Easting (ft): <u>597627.1</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

Target and actual penetration depth units corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/25</u>
VI.	Core ID: <u>409-2</u>
VII.	Water Depth at Time of Coring (ft): <u>0900</u> Precise Time When Water Depth Was Measured: <u>9.5 J# 1/24/17</u>
VIII.	Start Time of Coring (24-hour): <u>0850</u> End Time of Coring (24-hour): <u>0900</u>
IX.	Penetration: <sup>J# 1/24/17</sup> - Target Penetration (ft): <u>16"</u> - Actual Penetration (ft): <u>16"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/25</u>
XII.	Core ID: <u>409-2</u>
XIII.	Recovery: <u>11/24/17</u> - Recovery (ff): <u>15"</u> - Recovery (%): <u>94%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/25</u>
XVI.	Core ID: <u>409-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/25 Time 0900  
 Accepted By JH Company Arcadis Date 10/25 Time 1500  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>383-1</u> Water Depth and precise time measured <u>11.2-1040</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678450</u> - Easting (ft): <u>597690</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678449.1</u> - Easting (ft): <u>597689.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>1/26</u>
VI.	Core ID: <u>383-1</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured <u>1046</u>
VIII.	Start Time of Coring (24-hour): <u>1040</u> End Time of Coring (24-hour): <u>1045</u>
IX.	Penetration: <u>5# 1/24/17</u> - Target Penetration (ft): <u>14"</u> - Actual Penetration (ft): <u>14"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QCR review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>303-1</u>
XIII.	Recovery: <u>JA/24/17</u> - Recovery (ft): <u>140</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NR</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>383-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1040  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>383-2</u> Water Depth and precise time measured <u>11.2 1045</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678450</u> - Easting (ft): <u>597690</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678446.4</u> - Easting (ft): <u>597683.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>383-2</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured <u>1045</u>
VIII.	Start Time of Coring (24-hour): <u>1640</u> End Time of Coring (24-hour): <u>1645</u>
IX.	Penetration: <sup>on 1/24/17</sup> - Target Penetration (ft): <u>12"</u> - Actual Penetration (ft): <u>12"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during Q/C review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>383-2</u>
XIII.	Recovery: <u>JH-1/24/17</u> - Recovery (ft): <u>10"</u> - Recovery (%): <u>83%</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <p align="center"><u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection: <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>383-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1045  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>403-1</u> Water Depth and precise time measured <u>9.2 - 1100</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674370</u> - Easting (ft): <u>596599</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674869.4</u> - Easting (ft): <u>596593.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>403-1</u>
VII.	Water Depth at Time of Coring (ft): <u>9.2 - 1100</u> <sup>20th 1/24/17</sup> Precise Time When Water Depth Was Measured _____
VIII.	Start Time of Coring (24-hour): <u>1100</u> End Time of Coring (24-hour): <u>1125</u>
IX.	Penetration: <sup>5th 1/24/17</sup> - Target Penetration (ft): <u>24"</u> - Actual Penetration (ft): <u>24"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Recovery (%) was added on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>403-1</u>
XIII.	Recovery: <u>J*1/24/17</u> - Recovery (ft): <u>23"</u> - Recovery (%): <u>96</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/20</u>
XVI.	Core ID: <u>403-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1100  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/20</u>
II.	Core ID: <u>403-2</u> Water Depth and precise time measured <u>9.1 - 1115</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674870</u> - Easting (ft): <u>596599</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674875.9</u> - Easting (ft): <u>596594.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>403-2</u>
VII.	Water Depth at Time of Coring (ft): <u>9.1</u> Precise Time When Water Depth Was Measured <u>1115</u>
VIII.	Start Time of Coring (24-hour): <u>1100</u> End Time of Coring (24-hour): <u>1125</u>
IX.	Penetration: <sup># 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>134</u></li> <li>- Actual Penetration (ft): <u>13"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>403-2</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ff): <u>19"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$  Gaps Identified <u>0</u>  <u> </u> <u> </u> <u> </u> <u> </u>  <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection: <u> </u> <u> </u> <u> </u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/20</u>
XVI.	Core ID: <u>403-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/20 Time 1115

Accepted By ZML Company Arcadis Date 10/20 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>403-3</u> Water Depth and precise time measured <u>9.1 / 125</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674870</u> - Easting (ft): <u>596599</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674839.4</u> - Easting (ft): <u>596606.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>403-3</u>
VII.	Water Depth at Time of Coring (ft): <u>9.1</u> Precise Time When Water Depth Was Measured <u>1125</u>
VIII.	Start Time of Coring (24-hour): <u>1100</u> End Time of Coring (24-hour): <u>1125</u>
IX.	Penetration: <sup>JA 1/24/17</sup> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>403-3</u>
XIII.	Recovery: <u>Jt 1/24/17</u> - Recovery (#): <u>18</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>ND</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>403-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1125  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/20</u>
II.	Core ID: <u>379-1</u> Water Depth and precise time measured <u>6.1 - 1200</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683266</u> - Easting (ft): <u>599184</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683246.3</u> - Easting (ft): <u>599183.4</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/20</u>
VI.	Core ID: <u>379-1</u>
VII.	Water Depth at Time of Coring (ft): <u>6-1</u> Precise Time When Water Depth Was Measured <u>1200</u>
VIII.	Start Time of Coring (24-hour): <u>1200</u> End Time of Coring (24-hour): <u>1215</u>
IX.	Penetration: - Target Penetration (ft): <sup>in</sup> <u>13"</u> - Actual Penetration (ft): <sup>in</sup> <u>13"</u> - Penetration Achieved (Y or N): <input checked="" type="radio"/> Y <input type="radio"/> N Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>379-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1200  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>379-2</u> Water Depth and precise time measured <u>6.1 - 1215</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683266</u> - Easting (ft): <u>599184</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683269.3</u> - Easting (ft): <u>599193.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>379-2</u>
VII.	Water Depth at Time of Coring (ft): <u>6.1</u> Precise Time When Water Depth Was Measured <u>1215</u>
VIII.	Start Time of Coring (24-hour): <u>1200</u> End Time of Coring (24-hour): <u>1215</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>184</u></li> <li>- Actual Penetration (ft): <u>184</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>379-2</u>
XIII.	<p>Recovery: <u>18"</u> <sup>on 1/24/17</sup></p> <p>- Recovery (ff): <u>18"</u></p> <p>- Recovery (%): <u>100</u></p> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <p>If Recovery (%) ≥ 75%, then recovery is acceptable.        If Recovery (%) &lt; 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>379-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1215  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>375-1</u> Water Depth and precise time measured <u>8.8 - 1230</u>
III.	Sediment Collection Method (circle one):  - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684398</u> - Easting (ft): <u>599931</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684395.9</u> - Easting (ft): <u>599927.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depths in units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>375-1</u>
VII.	Water Depth at Time of Coring (ft): <u>8.8</u> <u>1236</u> Precise Time When Water Depth Was Measured <u>10/26/16</u>
VIII.	Start Time of Coring (24-hour): <u>1230</u> End Time of Coring (24-hour): <u>1240</u>
IX.	Penetration: <sup>JA 1/24/17</sup> - Target Penetration (ft): <u>27"</u> - Actual Penetration (ft): <u>27"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>375-1</u>
XIII.	Recovery: <u>JK 1/24/17</u> - Recovery <sup>in</sup> ( <del>ft</del> ): <u>27"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <hr/> <hr/> <hr/> <hr/> <p><small>If Recovery (%) ≥ 75%, then recovery is acceptable.          If Recovery (%) &lt; 75%, then refer to SOP No. 3</small></p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>375-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1230  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/20</u>
II.	Core ID: <u>375-2</u> Water Depth and precise time measured <u>8.9 - 1240</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684398</u> - Easting (ft): <u>599931</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684396.1</u> - Easting (ft): <u>599942.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>375-2</u>
VII.	Water Depth at Time of Coring (ft): <u>8.9</u> Precise Time When Water Depth Was Measured <u>1240</u>
VIII.	Start Time of Coring (24-hour): <u>1230</u> End Time of Coring (24-hour): <u>1240</u>
IX.	Penetration: <i>JR 1/24/17</i> - Target Penetration (ft): <u>24"</u> - Actual Penetration (ft): <u>24"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(N)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>375-2</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (in): <u>20</u> - Recovery (%): <u>83%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>375-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1240

Accepted By ZML Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>371-1</u> Water Depth and precise time measured <u>5.6-1300</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686604</u> - Easting (ft): <u>599913</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686085.1</u> - Easting (ft): <u>599917.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>544</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>371-1</u>
VII.	Water Depth at Time of Coring (ft): <u>5.6</u> Precise Time When Water Depth Was Measured <u>1300</u>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1315</u>
IX.	Penetration: <sup>JA 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>30<sup>ft</sup></u></li> <li>- Actual Penetration (ft): <u>30<sup>ft</sup></u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>371-1</u>
XIII.	Recovery: <u>10/24/17</u> - Recovery (ft): <u>29"</u> - Recovery (%): <u>97</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>371-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1300  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>371-2</u> Water Depth and precise time measured <u>5.8-1315</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686604</u> - Easting (ft): <u>599913</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686079.6</u> - Easting (ft): <u>599924.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAT</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/20</u>
VI.	Core ID: <u>371-2</u>
VII.	Water Depth at Time of Coring (ft): <u><del>1200</del> 6.8</u> Precise Time When Water Depth Was Measured <u>1200 1315</u>
VIII.	Start Time of Coring (24-hour): <u>1200</u> End Time of Coring (24-hour): <u>1315</u>
IX.	Penetration: <u>JH 1/24/17</u> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>371-2</u> <small>PJD 10/24/14</small>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1315  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/20</u>
II.	Core ID: <u>370-1</u> Water Depth and precise time measured <u>9.2 - 1400</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686523</u> - Easting (ft): <u>600760</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686523.2</u> - Easting (ft): <u>600761.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>10/26</u>
VI.	Core ID: <u>370-1</u>
VII.	Water Depth at Time of Coring (ft): <u>9.3</u> Precise Time When Water Depth Was Measured <u>1400</u>
VIII.	Start Time of Coring (24-hour): <u>1400</u> End Time of Coring (24-hour): <u>1415</u>
IX.	Penetration: <sup># 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12"</u></li> <li>- Actual Penetration (ft): <u>12"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/20</u>
XII.	Core ID: <u>370-1</u>
XIII.	Recovery: <u>jt 1/24/17</u> - Recovery (ft): <u>10</u> - Recovery (%): <u>83</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>None</u>  <hr/> <hr/> <hr/> <hr/> <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>370-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1400

Accepted By ZML Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>371-2</u> Water Depth and precise time measured <u>9.3/415</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686523</u> - Easting (ft): <u>600700</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <sup>PJD10/26/15</sup> <u>686523.2</u> <u>686515.1</u> - Easting (ft): <u>600765.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAD</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>370-2</u>
VII.	Water Depth at Time of Coring (ft): <u>9.3</u> Precise Time When Water Depth Was Measured: <u>1415</u>
VIII.	Start Time of Coring (24-hour): <u>1400</u> End Time of Coring (24-hour): <u>1415</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12<sup>4</sup></u></li> <li>- Actual Penetration (ft): <u>12<sup>4</sup></u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC reviews of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/20</u>
XII.	Core ID: <u>370-2</u>
XIII.	Recovery: <u>5<sup>th</sup> 1/24/17</u> - Recovery (ft): <u>10'</u> - Recovery (%): <u>83</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ <p>Gaps Identified <u>No</u></p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - Retained for Processing <u>○</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>370-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1400  
 Accepted By ZML Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <del>40</del> <sup>PJT 10/26/14</sup> 10/24
II.	Core ID: 402-1 Water Depth and precise time measured 6.7 0750
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): 674625 - Easting (ft): 598832  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): 674625.3 - Easting (ft): 598828.4  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): SAA - Easting (ft):  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>402-1</u>
VII.	Water Depth at Time of Coring (ft): <u>6.7</u> Precise Time When Water Depth Was Measured <u>0730</u>
VIII.	Start Time of Coring (24-hour): <u>0750</u> End Time of Coring (24-hour): <u>0800</u>
IX.	Penetration: <sup>10/29/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>402-1</u>
XIII.	Recovery: <del>13</del> <sup>17"</sup> - Recovery (ft): <u>17"</u> - Recovery (%): <u>94</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>402-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/20 Time 0750  
 Accepted By NDC Company Analys Date 10/24 Time 1520

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>10/20</u>
II.	Core ID: <u>402-2</u> Water Depth and precise time measured <u>67 0800</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674625</u> - Easting (ft): <u>598832</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674617.0</u> - Easting (ft): <u>598812.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Water depth and time recorded were added on 1/24/17 during QC review of the Phase III Field Report (see page 1).  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>402-2</u>
VII.	Water Depth at Time of Coring (ft): <u>6.7</u> Precise Time When Water Depth Was Measured <u>0800</u>
VIII.	Start Time of Coring (24-hour): <u>0750</u> End Time of Coring (24-hour): <u>0800</u>
IX.	Penetration: <del>JA</del> 1/24/17 - Target Penetration (ft): <u>23"</u> - Actual Penetration (ft): <u>23"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/20</u>
XII.	Core ID: <u>402-2</u>
XIII.	Recovery: <u>J# 11/24/17</u> - Recovery (ft): <u>23<sup>in</sup></u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/20</u>
XVI.	Core ID: <u>402.2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/24 Time 0800

Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>394-1</u> Water Depth and precise time measured <u>5.6 0815</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	<p>Coordinates:</p> <p>Target Coordinates (New Jersey State Plane NAD 83)</p> <p>- Northing (ft): <u>675907</u></p> <p>- Easting (ft): <u>599515</u></p> <p>Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83)</p> <p>- Northing (ft): <u>675907.2</u></p> <p>- Easting (ft): <u>599517.9</u></p> <p>Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)</p> <p>Final Core Collection Location Coordinates (New Jersey State Plane NAD 83)</p> <p>- Northing (ft): <u>SAA</u></p> <p>- Easting (ft): _____</p> <p>Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)</p>

Water depth and time recorded were added on 1/24/17 during QC review of the Phase III Field Report. (see page 1).  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/26</u>
VI.	Core ID: <u>394-1</u>
VII.	Water Depth at Time of Coring (ft): <u>5.6</u> Precise Time When Water Depth Was Measured <u>0815</u>
VIII.	Start Time of Coring (24-hour): <u>0815</u> End Time of Coring (24-hour): <u>1730</u>
IX.	Penetration: <sup>JK 1/24/17</sup> - Target Penetration (in): <u>24"</u> - Actual Penetration (in): <u>24"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>394-1</u>
XIII.	Recovery: <sup>to 1/24/17</sup> - Recovery (ft): <u>21"</u> - Recovery (%): <u>88</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>394-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 0815

Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>394-2</u> Water Depth and precise time measured <u>5.6 - 0830</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675907</u> - Easting (ft): <u>599515</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675903.5</u> - Easting (ft): <u>599502.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>394-2</u>
VII.	Water Depth at Time of Coring (ft): <u>5.6</u> Precise Time When Water Depth Was Measured <u>0830</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0830</u>
IX.	Penetration: <sup>JA 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>394-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 0830  
 Accepted By NDC Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>398-1</u> Water Depth and precise time measured <u>4.7 - 0845</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675574</u> - Easting (ft): <u>598600</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675574.6</u> - Easting (ft): <u>598600.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>398-1</u>
VII.	Water Depth at Time of Coring (ft): <u>7.7</u> Precise Time When Water Depth Was Measured <u>0845</u>
VIII.	Start Time of Coring (24-hour): <u>0845</u> End Time of Coring (24-hour): <u>0900</u>
IX.	Penetration: <u>JA 1/24/17</u> - Target Penetration (ft): <u>8"</u> - Actual Penetration (ft): <u>8"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>398-1</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (ft): <u>8'</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <hr/> <hr/> <hr/> <hr/> <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>39B-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 0945  
 Accepted By NDC Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>398-2</u> Water Depth and precise time measured <u>7.7 - 0900</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675557.0</u> <u>675574</u> - Easting (ft): <u>598582.7</u> <u>598600</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ - Easting (ft): _____ Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>398-2</u>
VII.	Water Depth at Time of Coring (ft): <u>7.7</u> Precise Time When Water Depth Was Measured <u>0900</u>
VIII.	Start Time of Coring (24-hour): <u>0845</u> End Time of Coring (24-hour): <u>0900</u>
IX.	Penetration: <sup>jt 1/24/17</sup> - Target Penetration (ft): <u>12"</u> - Actual Penetration (ft): <u>10"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>398-2</u>
XIII.	<p>Recovery: <u>jt 1/24/17</u></p> <p>- Recovery (f): <u>11"</u></p> <p>- Recovery (%): <u>92</u></p> <p style="text-align: center;"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100</math> </p> <p>Gaps Identified <u>No</u></p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>398-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 0900  
 Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>393-1</u> Water Depth and precise time measured <u>7.7-0915</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676232</u> - Easting (ft): <u>598909</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676233.0</u> - Easting (ft): <u>598905.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>393-1</u>
VII.	Water Depth at Time of Coring (ft): <u>7.7</u> Precise Time When Water Depth Was Measured <u>0915</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0920</u>
IX.	Penetration: - Target Penetration (ft): <u>12"</u> - Actual Penetration (ft): <u>12"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>393-1</u>
XIII.	Recovery: <u>JA-1/24/17</u> - Recovery (ft): <u>12"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>393-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 0915

Accepted By NDC Company Arcadis Date 10/26 Time 1535

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/24</u>
II.	Core ID: <u>393-2</u> Water Depth and precise time measured <u><del>8800</del> 8.0 0920</u> <small>PJD 10/26/16</small>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676232</u> - Easting (ft): <u>598909</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676214.8</u> - Easting (ft): <u>598925.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>393-2</u>
VII.	Water Depth at Time of Coring (ft): <u>8.0</u> Precise Time When Water Depth Was Measured <u>0920</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0920</u>
IX.	Penetration: <sup># 1/24/17</sup> - Target Penetration (ft): <u>16"</u> - Actual Penetration (ft): <u>16"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> <u>No</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>393-2</u>
XIII.	Recovery: <u># 1/24/17</u> - Recovery (f): <u>16"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>no</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>3A3-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 0920  
 Accepted By JH Company Arcadis Date 10/26 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>392-1</u> Water Depth and precise time measured <u>8.0' 0930</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676560</u> - Easting (ft): <u>598260</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676563.3</u> - Easting (ft): <u>598258.3</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>392-1</u>
VII.	Water Depth at Time of Coring (ft): <u>8</u> Precise Time When Water Depth Was Measured: <u>0930</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/24</u>
XII.	Core ID: <u>392-1</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ff): <u>18</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$  Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/20</u>
XVI.	Core ID: <u>392-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 930

Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>392-2</u> Water Depth and precise time measured <u>8.0 -0940</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676560</u> - Easting (ft): <u>598200</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676560.5</u> - Easting (ft): <u>598252.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) <u>SAA</u> - Northing (ft): _____ - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units corrected to indicate inches on 1/24/17 during QC review  
 of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
 NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/2/16</u>
VI.	Core ID: <u>42 392-2</u>
VII.	Water Depth at Time of Coring (ft): <u>B</u> Precise Time When Water Depth Was Measured <u>0940</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0958</u>
IX.	Penetration: <u>JH 1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12"</u></li> <li>- Actual Penetration (ft): <u>12"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during Q.C review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/20</u>
XII.	Core ID: <u>3922</u>
XIII.	Recovery: <u>1/24/17</u> <u>P101026/12</u> - Recovery (ft): <u>12"</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>392-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 3A 940  
PJD 10/26/14

Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time adjusted to 24hr notation on 1/24/17 during Q Review of Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>392-3</u> Water Depth and precise time measured <u>8.1 0946</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676560</u> - Easting (ft): <u>598260</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676538.4</u> - Easting (ft): <u>598257.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during  
 QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>392-3</u>
VII.	Water Depth at Time of Coring (ft): <u>8.1</u> Precise Time When Water Depth Was Measured: <u>0945</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <u>JA 1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>16"</u></li> <li>- Actual Penetration (ft): <u>16"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>392-3</u>
XIII.	<p>Recovery: <u>jt 1/24/17</u></p> <ul style="list-style-type: none"><li>- Recovery (in): <u>15"</u></li><li>- Recovery (%): <u>94</u></li></ul> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p>If Recovery (%) <math>\geq</math> 75%, <u>then</u> recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, <u>then</u> refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>392-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 945  
 Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time adjusted to 24-hr rotation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>392-4</u> Water Depth and precise time measured <u>8.0 0950</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676560</u> - Easting (ft): <u>598260</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676521.1</u> - Easting (ft): <u>598254.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>292-4</u>
VII.	Water Depth at Time of Coring (ft): <u>8.6</u> Precise Time When Water Depth Was Measured: <u>0950</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <sup>JA 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>16"</u></li> <li>- Actual Penetration (ft): <u>16"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>392-4</u>
XIII.	Recovery: <u>J# 10/24/17</u> - Recovery ( <del>ft</del> ): <u>14"</u> - Recovery (%): <u>87</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/20</u>
XVI.	Core ID: <u>392-4</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/20 Time 0950

Accepted By NDC Company Arcadis Date 10/20 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>389-1</u> Water Depth and precise time measured <u>6.7 - 1015</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677198</u> - Easting (ft): <u>599380</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677192.3</u> - Easting (ft): <u>599384.0</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <del>392</del> <u>389-1</u> <u>PID/PD/1/E</u>
VII.	Water Depth at Time of Coring (ft): <u>6.7</u> Precise Time When Water Depth Was Measured <u>1015</u>
VIII.	Start Time of Coring (24-hour): <u>1015</u> End Time of Coring (24-hour): <u>1020</u>
IX.	Penetration: <sup>J# 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>389-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1015

Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/26</u>
II.	Core ID: <u>389-2</u> Water Depth and precise time measured <u>6.7 1020</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677198</u> - Easting (ft): <u>599380</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677191.0</u> - Easting (ft): <u>599393.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/26</u>
VI.	Core ID: <u>389-2</u>
VII.	Water Depth at Time of Coring (ft): <u>4.7</u> Precise Time When Water Depth Was Measured <del>1020</del> <u>1020</u> <small>PID 10/26/17</small>
VIII.	Start Time of Coring (24-hour): <u>1015</u> End Time of Coring (24-hour): <u>1020</u>
IX.	Penetration: <sup>JH 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>16"</u></li> <li>- Actual Penetration (ft): <u>16"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/26</u>
XII.	Core ID: <u>389-2</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (ft): <u>16"</u> - Recovery (%): <u>100%</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NB</u>  <u> </u> <u> </u> <u> </u>  <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection: <u> </u> <u> </u> <u> </u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/26</u>
XVI.	Core ID: <u>392-389-2</u> <small>PJD 10/26/14</small>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/26 Time 1020  
 Accepted By NDC Company Arcadis Date 10/26 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>312</u> Water Depth and precise time measured <u>8.5 - 0730</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681670</u> - Easting (ft): <u>60111</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681667.2</u> - Easting (ft): <u>601126</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Time adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during  
 QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>312</u>
VII.	Water Depth at Time of Coring (ft): <u>8.5</u> Precise Time When Water Depth Was Measured <u>0730</u>
VIII.	Start Time of Coring (24-hour): <u>0730</u> End Time of Coring (24-hour): <u>0740</u>
IX.	Penetration: <u>JH 1/24/17</u> - Target Penetration ( <u>in</u> ): <u>16"</u> - Actual Penetration ( <u>in</u> ): <u>16"</u> - Penetration Achieved ( <u>Y</u> or N): _____ Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/77 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>312</u>
XIII.	Recovery: <u>JA 10/24/77</u> - Recovery (f): <u>16"</u> - Recovery (%): <u>100%</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable.</u> <u>If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>312</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0730  
 Accepted By JH Company Arcadis Date 10/27 Time 1300

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>311</u> Water Depth and precise time measured <u>8.5 e 815</u>
III.	Sediment Collection Method (circle one): - <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682012</u> - Easting (ft): <u>600476</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682012.5</u> - Easting (ft): <u>600484.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682012.5</u> - Easting (ft): <u>600484.7</u> Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 11/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>311</u>
VII.	Water Depth at Time of Coring (ft): <u>8.5</u> Precise Time When Water Depth Was Measured <u>0815</u>
VIII.	Start Time of Coring (24-hour): <u>0800</u> End Time of Coring (24-hour): <u>0815</u>
IX.	Penetration: <u>11/24/17</u> - Target Penetration (ft): <u>12.4</u> - Actual Penetration (ft): <u>12.1</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>311</u>
XIII.	<p>Recovery: <u>1/24/17</u></p> <p>- Recovery (ft): <u>10"</u></p> <p>- Recovery (%): <u>83</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV:	Date: <u>10/27</u>
XVI:	Core ID: <u>311</u>
XVII:	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII:	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0915  
 Accepted By JH Company Arcadis Date 10/27 Time 1300

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>310</u> Water Depth and precise time measured <u>9.1 0840</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682343</u> - Easting (ft): <u>599816</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682344.4</u> - Easting (ft): <u>599811.9</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>310</u>
VII.	Water Depth at Time of Coring (ft): <u>0840</u> Precise Time When Water Depth Was Measured <u>9.1</u>
VIII.	Start Time of Coring (24-hour): <u>0830</u> End Time of Coring (24-hour): <u>0840</u>
IX.	Penetration: <u>JH 1/24/17</u>
	<ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>1/00</u></li> <li>- Actual Penetration (ft): <u>1/00</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during Q.C review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>310</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ft): <u>15"</u> - Recovery (%): <u>94</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>   <u> </u> <u> </u> <u> </u> <u> </u>  If Recovery (%) ≥ 75%, then recovery is acceptable. If Recovery (%) < 75%, then refer to SOP No. 3
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <u> </u> <u> </u> <u> </u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>310</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0940  
 Accepted By JH Company Arcadis Date 10/27 Time 1300  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>309</u> Water Depth and precise time measured <u>9.1 @ 09.00</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682655</u> - Easting (ft): <u>599164</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682657.6</u> - Easting (ft): <u>599161.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>309</u>
VII.	Water Depth at Time of Coring (ft): <u>9.1 @ 0900 2J* 1/24/17</u> Precise Time When Water Depth Was Measured _____
VIII.	Start Time of Coring (24-hour): <u>0300</u> End Time of Coring (24-hour): <u>0900</u>
IX.	Penetration: <u>J* 1/24/17</u>
	<ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>16"</u></li> <li>- Actual Penetration (ft): <u>16"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>309</u>
XIII.	Recovery: <del>1/24/17</del> - Recovery (ff): <u>11</u> - Recovery (%): <u>69</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>309</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0900  
 Accepted By JH Company Arcadis Date 10/27 Time 1300  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>313</u> Water Depth and precise time measured <u>0915 - 10.1'</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682032</u> - Easting (ft): <u>598885</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682028.1</u> - Easting (ft): <u>598880.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAP</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>313</u>
VII.	Water Depth at Time of Coring (ft): <u>10.1</u> Precise Time When Water Depth Was Measured <u>0915</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0920</u>
IX.	Penetration: <u>1/24/17</u> - Target Penetration (ft): <u>73"</u> - Actual Penetration (ft): <u>23"</u> - Penetration Achieved (Y or N): _____ Refusal? (circle one): Yes <input checked="" type="radio"/> No <input type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>313</u>
XIII.	<p>Recovery: <sup>J# 1/24/17</sup> - Recovery (ft): <u>23"</u> - Recovery (%): <u>100</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p><u> </u> <u> </u> <u> </u> <u> </u></p> <p>If Recovery (%) ≥ 75%, then recovery is acceptable. If Recovery (%) &lt; 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p><u> </u> <u> </u> <u> </u></p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>313</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0915  
 Accepted By JH Company Arcadis Date 10/27 Time 1300  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>377-1</u> Water Depth and precise time measured <u>11.1-0930</u>
III.	Sediment Collection Method (circle one): - <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683809</u> - Easting (ft): <u>599535</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683807.3</u> - Easting (ft): <u>599531.4</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

930 12/12  
 940 10/18  
 950 24/24

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>16/27</u>
VI.	Core ID: <u>377-1</u>
VII.	Water Depth at Time of Coring (ft): <u>0930; 11.1</u> Precise Time When Water Depth Was Measured <u>JA 1/24/17</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <u>JA 1/24/17</u> - Target Penetration (ft): <u>12"</u> - Actual Penetration (ft): <u>12"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>377.1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0930

Accepted By JH Company Arcadis Date 10/27 Time 1300

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>377.2</u> Water Depth and precise time measured <u>11.2 - 0940</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683809</u> - Easting (ft): <u>599535</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>693803.5</u> - Easting (ft): <u>599520.8</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units were corrected on 1/24/17 to indicate inches during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>377.2</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured: <u>0948</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <u>JK 1/24/17</u> - Target Penetration (ft): <u>13"</u> - Actual Penetration (ft): <u>19"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <u>Yes</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>377.2</u>
XIII.	Recovery: <u>10/24/17</u> - Recovery (f): <u>10</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>377-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0940  
 Accepted By J\* Company Arcadis Date 10/27 Time 1300  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>377-3</u> Water Depth and precise time measured <u>11.2 - 0950</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683809</u> - Easting (ft): <u>599535</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>683796.8</u> - Easting (ft): <u>599509.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Report  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17  
 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>377-3</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured <u>0953</u>
VIII.	Start Time of Coring (24-hour): <u>0930</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <sup>jt 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>in 24"</u></li> <li>- Actual Penetration (ft): <u>29</u></li> <li>- Penetration Achieved (Y or N): <u>(3)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>377-3</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ft): <u>24"</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>377-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 0950  
 Accepted By JH Company Arcadis Date 10/27 Time 1300

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>307</u> Water Depth and precise time measured <u>8.0'</u> <u>1000</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	<p>Coordinates:</p> <p>Target Coordinates (New Jersey State Plane NAD 83)</p> <p>- Northing (ft): <u>682915</u></p> <p>- Easting (ft): <u>600175</u></p> <p>Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83)</p> <p>- Northing (ft): <u>600177.8</u> <u>5</u> <u>10002716</u></p> <p>- Easting (ft): <u>682910.5</u> <u>5</u> <u>1</u></p> <p>Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)</p> <p>Final Core Collection Location Coordinates (New Jersey State Plane NAD 83)</p> <p>- Northing (ft): <u>SAA</u></p> <p>- Easting (ft): _____</p> <p>Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)</p>

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>307</u>
VII.	Water Depth at Time of Coring (ft): <u>1000</u> <span style="margin-left: 20px;">5.5' 1/24/17</span> Precise Time When Water Depth Was Measured: <u>10:00</u>
VIII.	Start Time of Coring (24-hour): <u>1006</u> End Time of Coring (24-hour): <u>1005</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>20'</u></li> <li>- Actual Penetration (ft): <u>20'</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>307</u>
XIII.	Recovery: <u>1/24/17</u> - Recovery (ff): <u>20%</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>307</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 1000  
 Accepted By JH Company Arcadis Date 10/27 Time 1300  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>308</u> Water Depth and precise time measured <u>5.5 - 1030</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682671</u> - Easting (ft): <u>600807</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682665.4</u> - Easting (ft): <u>600803.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SIAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>308</u>
VII.	Water Depth at Time of Coring (ft): <u>5.5</u> Precise Time When Water Depth Was Measured <u>1030</u>
VIII.	Start Time of Coring (24-hour): <u>1030</u> End Time of Coring (24-hour): <u>1040</u>
IX.	Penetration: <u>5th 10/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>303</u>
XIII.	<p>Recovery: <u>1/24/17</u></p> <p>- Recovery (ft): <u>21</u></p> <p>- Recovery (%): <u>88</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>NO</u></p> <p><u>NO</u></p> <p><u>NO</u></p> <p><u>NO</u></p> <p><u>NO</u></p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p><u>NO</u></p> <p><u>NO</u></p> <p><u>NO</u></p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>308</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 1030  
 Accepted By JH Company Arcadis Date 10/27 Time 1300  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>6/27</u>
II.	Core ID: <u>308-2</u> Water Depth and precise time measured <u>5.5-1040</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682671</u> - Easting (ft): <u>600807</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>682655.6</u> - Easting (ft): <u>600806.9</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>308</u>
VII.	Water Depth at Time of Coring (ft): <u>5.6</u> Precise Time When Water Depth Was Measured <u>1040</u>
VIII.	Start Time of Coring (24-hour): <u>1030</u> End Time of Coring (24-hour): <u>1040</u>
IX.	Penetration: <u>JK 1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>25"</u></li> <li>- Actual Penetration (ft): <u>25"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>308-2</u>
XIII.	Recovery: <u>JH 1/24/17</u> - Recovery (f): <u>28</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>3082</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 1040  
 Accepted By JH Company Arcadis Date 10/27 Time 1300  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: _____ 10/27
II.	Core ID: _____ 378 Water Depth and precise time measured _____ 8.0 1100
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ 683471 - Easting (ft): _____ 600093 Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ 683471.1 - Easting (ft): _____ 600098.4 Confirm initial core location coordinates are within 5 feet of target coordinates _____ Y (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ SAA - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates _____ Y (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>378</u>
VII.	Water Depth at Time of Coring (ft): <u>30</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1058</u> End Time of Coring (24-hour): <u>1100</u>
IX.	Penetration: <sup>10/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (R): <u>13" / 16"</u></li> <li>- Actual Penetration (R): <u>16"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): <u>Y</u> <sup>10/27/16</sup> No Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 3 of 4)**

XI.	Date: _____ <span style="float: right;">10/27</span>
XII.	Core ID: _____ <span style="float: right;">378</span>
XIII.	<p>Recovery: <span style="margin-left: 20px;">jt 1/24/17</span></p> <p>- Recovery (ft): _____ <span style="margin-left: 100px;">15</span></p> <p>- Recovery (%): _____ <span style="margin-left: 100px;">94</span></p> <p style="text-align: center;">Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified</p> <p style="text-align: center; font-size: 1.5em;">NO</p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then</u> recovery is acceptable. <u>If Recovery (%) &lt; 75%, then</u> refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"> <li>- <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Retained for Processing</span></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>10/27</u>
XVI.	Core ID: <u>378</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 10/27 Time 1100  
 Accepted By JH Company Arcadis Date 10/27 Time 1300

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>10/27</u>
II.	Core ID: <u>376</u> Water Depth and precise time measured <u>12-0 1130</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684152</u> - Easting (ft): <u>600492</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684147.8</u> - Easting (ft): <u>600487.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>10/27</u>
VI.	Core ID: <u>376</u>
VII.	Water Depth at Time of Coring (ft): <u>1130</u> Precise Time When Water Depth Was Measured: <u>1205<sup>h</sup> 12/4/17</u>
VIII.	Start Time of Coring (24-hour): <u>1120</u> End Time of Coring (24-hour): <u>1130</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 3 of 4)

XI.	Date: <u>10/27</u>
XII.	Core ID: <u>376</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (f): <u>23"</u> - Recovery (%): <u>96</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: _____ 10/27
XVI.	Core ID: _____ 376
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: P.Dougher

Relinquished By PJD Company Arcadis Date 10/27 Time 1130  
Accepted By JH Company Arcadis Date 10/27 Time 1300

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>314</u> Water Depth and precise time measured <u>6.8 1400</u>
III.	Sediment Collection Method (circle one):  - <u>Vibracoring</u>
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681683</u> - Easting (ft): <u>599485</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681678.6</u> - Easting (ft): <u>599478.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>314</u>
VII.	Water Depth at Time of Coring (ft): <u>6.8</u> Precise Time When Water Depth Was Measured <u>1400</u>
VIII.	Start Time of Coring (24-hour): <u>1350</u> End Time of Coring (24-hour): <u>1400</u>
IX.	Penetration: <sup>JH 1/24/17</sup> - Target Penetration (ft): <u>31"</u> - Actual Penetration (ft): <u>31"</u> - Penetration Achieved (Y or N): <input checked="" type="radio"/> Y <input type="radio"/> N  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 3 of 4)**

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>314</u>
XIII.	<p>Recovery: <u>J# 1/24/17</u></p> <ul style="list-style-type: none"> <li>- Recovery (ft): <u>31"</u></li> <li>- Recovery (%): <u>100</u></li> </ul> <p style="text-align: center;"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math> </p> <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p style="text-align: center;"><u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>314</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1400  
 Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>315</u> Water Depth and precise time measured <u>5.8 1350</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681352</u> - Easting (ft): <u>600145</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681348.8</u> - Easting (ft): <u>600146.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>315</u>
VII.	Water Depth at Time of Coring (ft): <u>5.8</u> Precise Time When Water Depth Was Measured <u>1350</u>
VIII.	Start Time of Coring (24-hour): <u>1345</u> End Time of Coring (24-hour): <u>1350</u>
IX.	Penetration: <sup>JA 1/24/17</sup> - Target Penetration (ft): <u>28'</u> - Actual Penetration (ft): <u>28'</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 3 of 4)**

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>315</u>
XIII.	<p>Recovery: <u>jt 1/24/17</u></p> <ul style="list-style-type: none"> <li>- Recovery (ft): <u>28"</u></li> <li>- Recovery (%): <u>100</u></li> </ul> <p style="text-align: center;"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math> </p> <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"> <li>- <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Retained for Processing</span></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>315</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1350

Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>316</u> Water Depth and precise time measured <u>6.6 1330</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680690</u> - Easting (ft): <u>601461</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680689.8</u> - Easting (ft): <u>601465.9</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>11/1</u>
VI.	Core ID: <u>316</u>
VII.	Water Depth at Time of Coring (ft): <del>1320</del> <u>1330</u> <small>P.S.D. 11/1/16</small> Precise Time When Water Depth Was Measured: <u>1330</u> <u>6.6</u> <small># 1/24/17</small>
VIII.	Start Time of Coring (24-hour): <u>1320</u> End Time of Coring (24-hour): <u>1330</u>
IX.	Penetration: <small># 1/24/17</small> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <u>(N)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>316</u>
XIII.	Recovery: <u>J#12417</u> - Recovery (in): <u>24"</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ff)} - \text{Gaps (ff)}}{\text{Actual Penetration (ff)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable.</u> <u>If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>316</u>
XVII.	Notes (see logbook for additional information):      
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1330  
Accepted By JH Company Arcadis Date 11/1 Time 1705  
  
Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>317-1</u> Water Depth and precise time measured <u>10.4 - 1300</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681181</u> - Easting (ft): <u>599071</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681176.4</u> - Easting (ft): <u>599069.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>317-1</u>
VII.	Water Depth at Time of Coring (ft): <u>10.4</u> Precise Time When Water Depth Was Measured <u>1300</u>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1310</u>
IX.	Penetration: <u>J* 1/24/17</u> - Target Penetration (ft): <u>29"</u> - Actual Penetration (ft): <u>29"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>317-1</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (ft): <u>29<sup>in</sup></u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <u>_____</u> <u>_____</u> <u>_____</u> <u>_____</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection: <u>_____</u> <u>_____</u> <u>_____</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>317-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1300

Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>317-2</u> Water Depth and precise time measured <u>10.5 - 1305</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681181</u> - Easting (ft): <u>599071</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681171.8</u> - Easting (ft): <u>599067.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>317-2</u>
VII.	Water Depth at Time of Coring (ft): <u>10.5</u> Precise Time When Water Depth Was Measured <u>1305</u> <small>1/20 11/16</small>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1210</u>
IX.	Penetration: <u>11/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during Q Review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>317-2</u>
XIII.	<p>Recovery: <u>J# 1/24/17</u></p> <ul style="list-style-type: none"> <li>- Recovery <sup>in</sup> (ft): <u>24"</u></li> <li>- Recovery (%): <u>100</u></li> </ul> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"> <li>- <u>Retained for Processing</u></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>317-2 11/1</u>
XVI.	Core ID: <u>↓ PSD 11/11/16</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1305  
 Accepted By JH Company Arcadis Date 11/1 Time 1705  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>317-3</u> Water Depth and precise time measured <u>10.6 - 1310</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681181</u> - Easting (ft): <u>599071</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681159.7</u> - Easting (ft): <u>599064.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>317-3</u>
VII.	Water Depth at Time of Coring (ft): <u>10.5</u> Precise Time When Water Depth Was Measured <u>1310</u>
VIII.	Start Time of Coring (24-hour): <u>1300</u> End Time of Coring (24-hour): <u>1310</u>
IX.	Penetration: - Target Penetration (ft): <u>24"</u> - Actual Penetration (ft): <u>24"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>317-3</u>
XIII.	Recovery: <u>at 1/24/17</u> - Recovery (ft): <u>24"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>317-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1316  
 Accepted By JH Company Arcadis Date 11/1 Time 1705  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>318</u> Water Depth and precise time measured <u>8.7 - 1250</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680693</u> - Easting (ft): <u>599814</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680691.3</u> - Easting (ft): <u>599810.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 4)**

V.	Date: <u>11/1</u>
VI.	Core ID: <u>318</u>
VII.	Water Depth at Time of Coring (ft): <u>8.7</u> Precise Time When Water Depth Was Measured <u>1250</u>
VIII.	Start Time of Coring (24-hour): <u>1250</u> End Time of Coring (24-hour): <u>1255</u>
IX.	Penetration: <u>#1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>24"</u></li> <li>- Actual Penetration (ft): <u>24"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>318</u>
XIII.	<p>Recovery: <u>#1/24/17</u> - Recovery (f): <u>24</u> - Recovery (%): <u>100</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>If Recovery (%) <math>\geq</math> 75%, <u>then</u> recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, <u>then</u> refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>318</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1250  
 Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>319</u> Water Depth and precise time measured <u>8.7 - 1245</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680362</u> - Easting (ft): <u>600474</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680360.7</u> - Easting (ft): <u>600470.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>319</u>
VII.	Water Depth at Time of Coring (ft): <u>8.7</u> Precise Time When Water Depth Was Measured <u>1245</u>
VIII.	Start Time of Coring (24-hour): <u>1240</u> End Time of Coring (24-hour): <u>1245</u>
IX.	Penetration: <u>JA 1/24/17</u> - Target Penetration (ft): <u>25"</u> - Actual Penetration (ft): <u>25"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>319</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1245  
 Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>320</u> Water Depth and precise time measured <u>8-7 - 1200</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>68063.1</u> - Easting (ft): <u>601133</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680029.4</u> - Easting (ft): <u>601175.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>320</u>
VII.	Water Depth at Time of Coring (ft): <u>1200</u> Precise Time When Water Depth Was Measured: <u>8.7<sup>h</sup> 5<sup>m</sup> 12<sup>s</sup> 1/24/17</u>
VIII.	Start Time of Coring (24-hour): <u>1150</u> End Time of Coring (24-hour): <u>1200</u>
IX.	Penetration: <u>J# 1/24/17</u> - Target Penetration (ft): <u>24<sup>in</sup></u> - Actual Penetration (ft): <u>24<sup>in</sup></u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>1/11</u>
XII.	Core ID: <u>320</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (ft): <u>23"</u> - Recovery (%): <u>96</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ <u>Gaps Identified</u> <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>320</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/20/11 Time 1200  
 Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>321</u> Water Depth and precise time measured <u>9.0 - 1430</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681069</u> - Easting (ft): <u>597297</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>681075.1</u> - Easting (ft): <u>597297.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>321</u>
VII.	Water Depth at Time of Coring (ft): <u>9.0</u> Precise Time When Water Depth Was Measured <u>1430</u>
VIII.	Start Time of Coring (24-hour): <u>1420</u> End Time of Coring (24-hour): <u>1430</u>
IX.	Penetration: <u>JA 1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>27"</u></li> <li>- Actual Penetration (ft): <u>27"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>321</u>
XIII.	Recovery: <u>3# 1/24/17</u> - Recovery (f): <u>27<sup>in</sup></u> - Recovery (%): <u>106</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>ND</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>321</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1430  
 Accepted By JH Company Arcadis Date 11/1 Time 1705  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>1/11</u>
II.	Core ID: <u>322</u> Water Depth and precise time measured <u>13.3 1145</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680373</u> - Easting (ft): <u>598876</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680378.3</u> - Easting (ft): <u>598879.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>322</u>
VII.	Water Depth at Time of Coring (ft): <del>1140</del> <u>1145</u> <sup>1140</sup> <sub>50# 1/24/17</sub> Precise Time When Water Depth Was Measured <u>13.3</u>
VIII.	Start Time of Coring (24-hour): <u>1140</u> End Time of Coring (24-hour): <u>1145</u>
IX.	Penetration: <u>3/24/17</u>
	- Target Penetration (ft): <u>27<sup>in</sup></u>
	- Actual Penetration (ft): <u>27<sup>in</sup></u>
	- Penetration Achieved (Y or N): <u>(Y)</u>
	Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>322</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1145  
 Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>324</u> Water Depth and precise time measured <u>1115 9.3</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679702</u> - Easting (ft): <u>600143</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679704.6</u> - Easting (ft): <u>600141.0</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>1/11</u>
VI.	Core ID: <u>324</u>
VII.	Water Depth at Time of Coring (ft): <u>9.3</u> Precise Time When Water Depth Was Measured <u>1115</u>
VIII.	Start Time of Coring (24-hour): <u>1115</u> End Time of Coring (24-hour): <u>1120</u>
IX.	Penetration: <u>3<sup>rd</sup> 1/24/17</u> - Target Penetration (ft): <u>14"</u> - Actual Penetration (ft): <u>14"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 3 of 4)**

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>324</u>
XIII.	<p>Recovery: <u>at 1/24/17</u></p> <ul style="list-style-type: none"> <li>- Recovery (ft): <u>14"</u></li> <li>- Recovery (%): <u>100</u></li> </ul> <p style="margin-left: 40px;"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math> </p> <p>Gaps Identified <u>No</u></p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"> <li>- <u>Retained for Processing</u></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>324</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 324  
 Accepted By JH Company Arcadis Date 11/1 Time 1705  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>323</u> Water Depth and precise time measured <u>9.7 - 1130</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680033</u> - Easting (ft): <u>599483</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680028.9</u> - Easting (ft): <u>599476.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>1/11</u>
VI.	Core ID: <u>323</u>
VII.	Water Depth at Time of Coring (ft): <u>9.7</u> Precise Time When Water Depth Was Measured <u>1130</u>
VIII.	Start Time of Coring (24-hour): <u>1120</u> End Time of Coring (24-hour): <u>1130</u>
IX.	Penetration: <u>JH 1/24/17</u> - Target Penetration (ft): <u>25"</u> - Actual Penetration (ft): <u>25"</u> - Penetration Achieved (Y or N): <u>(Y)</u>  Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>323</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1130

Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>325</u> Water Depth and precise time measured <u>10.7 1100</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679398</u> - Easting (ft): <u>600457</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679403.1</u> - Easting (ft): <u>600457.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>1/11</u>
VI.	Core ID: <u>325</u>
VII.	Water Depth at Time of Coring (ft): <u>16.7</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1040</u> End Time of Coring (24-hour): <u>1100</u>
IX.	Penetration: <u>5/1/24/17</u> - Target Penetration (ft): <u>26"</u> - Actual Penetration (ft): <u>26"</u> - Penetration Achieved ( <input checked="" type="radio"/> Y or <input type="radio"/> N): _____  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>325</u>
XIII.	<p>Recovery: <u>gt 1/24/17</u></p> <p>- Recovery (ft): <u>26"</u></p> <p>- Recovery (%): <u>100</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>325</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1100

Accepted By J# Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>323</u> Water Depth and precise time measured <u>9.3-1445</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>685430</u> - Easting (ft): <u>599545</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>685478.3</u> - Easting (ft): <u>599551.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>373</u>
VII.	Water Depth at Time of Coring (ft): <u>9.3</u> Precise Time When Water Depth Was Measured <u>1445</u>
VIII.	Start Time of Coring (24-hour): <u>1440</u> End Time of Coring (24-hour): <u>1445</u>
IX.	Penetration: <sup>5* 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>1/11</u>
XII.	Core ID: <u>373</u>
XIII.	Recovery: <u>J#1/24/17</u> - Recovery (ft): <u>18"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <hr/> <hr/> <hr/> <hr/> <p><small>If Recovery (%) ≥ 75%, then recovery is acceptable.          If Recovery (%) &lt; 75%, then refer to SOP No. 3</small></p>
XIV.	Final Disposition of Core (circle one): <div style="display: flex; align-items: center; margin-top: 5px;"> <input checked="" type="radio"/> Retained for Processing         </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <input type="radio"/> Rejected         </div> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>373</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1445  
 Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>374</u> Water Depth and precise time measured <u>12.3 - 1500</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684868</u> - Easting (ft): <u>600815</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>684867.2</u> - Easting (ft): <u>600814.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>1/1</u>
VI.	Core ID: <u>374</u>
VII.	Water Depth at Time of Coring (ft): <u>12.3</u> Precise Time When Water Depth Was Measured <u>1500</u>
VIII.	Start Time of Coring (24-hour): <u>1450</u> End Time of Coring (24-hour): <u>1500</u>
IX.	Penetration: <u>J# 1/24/17</u> - Target Penetration (ft): <u>13"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/1</u>
XII.	Core ID: <u>374</u>
XIII.	<p>Recovery: <u>JA 1/24/17</u></p> <p>- Recovery (ft): <u>16'</u></p> <p>- Recovery (%): <u>89</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>NO</u></p> <p><u>        </u></p> <p><u>        </u></p> <p><u>        </u></p> <p><u>        </u></p> <p>If Recovery (%) <math>\geq</math> 75%, <u>then</u> recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, <u>then</u> refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p><u>        </u></p> <p><u>        </u></p> <p><u>        </u></p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>374</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1500

Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/1</u>
II.	Core ID: <u>372</u> Water Depth and precise time measured <u>6.1 - 1515</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) <u>PJD11/11/16</u> - Northing (ft): <u><del>685191</del> <del>685351</del> 685191</u> - Easting (ft): <u><del>601725</del> <del>601344</del> 601245</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>685256.0</u> - Easting (ft): <u>601248.2</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

\*MOVED 150' S. OF LAND

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/1</u>
VI.	Core ID: <u>372</u>
VII.	Water Depth at Time of Coring (ft): <u>6.1</u> Precise Time When Water Depth Was Measured <u>1515</u>
VIII.	Start Time of Coring (24-hour): <u>1510</u> End Time of Coring (24-hour): <u>1515</u>
IX.	Penetration: <sup>JAC 1/24/17</sup> - Target Penetration (ft): <u>24"</u> - Actual Penetration (ft): <u>24"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during Q.C review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>1/1</u>
XII.	Core ID: <u>372</u>
XIII.	Recovery: <u>JK 1/24/17</u> - Recovery (ft): <u>24"</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	Final Disposition of Core (circle one): <div style="display: flex; align-items: center; margin-top: 5px;"> <span style="margin-right: 10px;">-</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px 10px;">Retained for Processing</span> </div> <div style="margin-top: 5px;"> <span style="margin-right: 10px;">-</span> Rejected         </div> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/1</u>
XVI.	Core ID: <u>372</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/1 Time 1515  
 Accepted By JH Company Arcadis Date 11/1 Time 1705

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>390</u> Water Depth and precise time measured <u>11.2 - 1315</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677176</u> - Easting (ft): <u>596992</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>677174.8</u> - Easting (ft): <u>596987.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/2</u>
VI.	Core ID: <u>390</u>
VII.	Water Depth at Time of Coring (ft): <sup>PIDN/A/H</sup> <del>13</del> <u>11.2</u> Precise Time When Water Depth Was Measured <u>1315</u>
VIII.	Start Time of Coring (24-hour): <u>1110</u> End Time of Coring (24-hour): <u>1115</u>
IX.	Penetration: <sup>J 1/24/17</sup> - Target Penetration (T): <u>13"</u> - Actual Penetration (A): <u>13"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>1/2</u>
XII.	Core ID: <u>390</u>
XIII.	<p>Recovery: <u>JT 1/24/17</u></p> <p>- Recovery (ft): <u>10"</u></p> <p>- Recovery (%): <u>56%</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified</p> <p><u>NO</u></p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p><u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>390</u>
XVII.	Notes (see logbook for additional information): <u>* Two ft. core tube</u>    
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1315  
 Accepted By JH Company Arcadis Date 11/2 Time 1445  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>334</u> Water Depth and precise time measured <u>6.3 - 1245</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678369.0</u> - Easting (ft): <u>596206.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678367.5</u> - Easting (ft): <u>596209.0</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>334</u>
VII.	Water Depth at Time of Coring (ft): <u>6.3</u> Precise Time When Water Depth Was Measured <u>1246</u>
VIII.	Start Time of Coring (24-hour): <u>1240</u> End Time of Coring (24-hour): <u>1246</u>
IX.	Penetration: <u>JA 1/24/17</u> - Target Penetration (in): <u>16"</u> - Actual Penetration (in): <u>16"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>334</u>
XIII.	<p>Recovery: <u>JA 1/24/17</u></p> <p>- Recovery (ft): <u>12"</u></p> <p>- Recovery (%): <u>75%</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>No</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>334</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>    
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1245

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>333</u> Water Depth and precise time measured <u>8.5 - 1230</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679040.0</u> - Easting (ft): <u>596911.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679099.0</u> - Easting (ft): <u>596553.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>333</u>
VII.	Water Depth at Time of Coring (ft): <u>8.5</u> Precise Time When Water Depth Was Measured <u>1230</u>
VIII.	Start Time of Coring (24-hour): <u>1220</u> End Time of Coring (24-hour): <u>1230</u>
IX.	Penetration: <u>1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>333</u>
XIII.	Recovery: <u>JH 1/24/17</u> - Recovery (ft): <u>16"</u> - Recovery (%): <u>93</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ <p>Gaps Identified <u>NO</u></p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>343</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u> <u>* Moved location 75' N. off bridge pier</u>
XVIII.	Name of Person Responsible for Log: <u>P.Douher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1230

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>330</u> Water Depth and precise time measured <u>9.0 - 1200</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679505</u> - Easting (ft): <u>596731</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679502.0</u> - Easting (ft): <u>596723.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QA review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>330</u>
VII.	Water Depth at Time of Coring (ft): <u>9.0</u> Precise Time When Water Depth Was Measured <u>1200</u>
VIII.	Start Time of Coring (24-hour): <u>1150</u> End Time of Coring (24-hour): <u>1200</u>
IX.	Penetration: <u>JA 1/24/17</u> - Target Penetration (in): <u>18"</u> - Actual Penetration (in): <u>19"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>330</u>
XIII.	Recovery: <u>J# 1/24/17</u> - Recovery (ft): <u>16"</u> - Recovery (%): <u>83</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:    

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>330</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1200

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>337</u> Water Depth and precise time measured <u>12-0-1145</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675773.0</u> - Easting (ft): <u>594877.0</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675774.5</u> - Easting (ft): <u>594806.3</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>337</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> Precise Time When Water Depth Was Measured <u>1145</u>
VIII.	Start Time of Coring (24-hour): <u>1146</u> End Time of Coring (24-hour): <u>1145</u>
IX.	Penetration: <u>J 1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12"</u></li> <li>- Actual Penetration (ft): <u>12"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>337</u>
XIII.	Recovery: <u>JH 1/24/17</u> - Recovery (in): <u>124</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>337</u>
XVII.	Notes (see logbook for additional information): <u>* Two ft. core tube</u>    
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1145  
 Accepted By JH Company Arcadis Date 11/2 Time 1445  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>336</u> Water Depth and precise time measured <u>8.2 1100</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676435.0</u> - Easting (ft): <u>595138.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676435.7</u> - Easting (ft): <u>595137.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth on its were corrected to indicate inches on 1/29/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>336</u>
VII.	Water Depth at Time of Coring (ft): <u>8.2</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1055</u> End Time of Coring (24-hour): <u>1100</u>
IX.	Penetration: <u>JA 1/29/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12"</u></li> <li>- Actual Penetration (ft): <u>12"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>336</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1100

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>340</u> Water Depth and precise time measured <u>12.2 - 1030</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673421.0</u> - Easting (ft): <u>595505.5</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673422.1</u> - Easting (ft): <u>595507.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>1/12</u>
VI.	Core ID: <u>340</u>
VII.	Water Depth at Time of Coring (ft): <u>12.2</u> Precise Time When Water Depth Was Measured <u>1030</u>
VIII.	Start Time of Coring (24-hour): <u>1025</u> End Time of Coring (24-hour): <u>1030</u>
IX.	Penetration: - Target Penetration (ft): <sup>is</sup> <u>18"</u> - Actual Penetration (ft): <sup>(ft)</sup> <u>18"</u> - Penetration Achieved (Y or N): <u>(Y)</u>  Refusal? (circle one): Yes <u>(Y)</u> No _____ Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>340</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (f): <u>180</u> - Recovery (%): <u>100</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$  Gaps Identified <u>NO</u>   If Recovery (%) ≥ 75%, then recovery is acceptable. If Recovery (%) < 75%, then refer to SOP No. 3
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>340</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1030

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>335</u> Water Depth and precise time measured <u>7.6 1045</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676963</u> - Easting (ft): <u>595258</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>676961.8</u> - Easting (ft): <u>595255.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>335</u>
VII.	Water Depth at Time of Coring (ft): <u>1045</u> Precise Time When Water Depth Was Measured: <u>7.6'</u> <span style="margin-left: 20px;">J# 1/24/17</span>
VIII.	Start Time of Coring (24-hour): <u>1040</u> End Time of Coring (24-hour): <u>1045</u>
IX.	Penetration: <u>J# 1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>13"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>335</u>
XIII.	<p>Recovery: <u>JA 1/24/17</u></p> <p>- Recovery (ft): <u>1811</u></p> <p>- Recovery (%): <u>100</u></p> <p>Recovery (%) = <math>\frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p> <p>Gaps Identified <u>NO</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>If Recovery (%) <math>\geq</math> 75%, then recovery is acceptable. If Recovery (%) <math>&lt;</math> 75%, then refer to SOP No. 3</p>
XIV.	<p>Final Disposition of Core (circle one):</p> <p>- <u>Retained for Processing</u></p> <p>- Rejected</p> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 4 of 4)**

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>335</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1045  
 Accepted By JH Company Arcadis Date 11/2 Time 1445  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>345</u> Water Depth and precise time measured <u>11.2 - 1600</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673291</u> - Easting (ft): <u>593542</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673292.1</u> - Easting (ft): <u>593544.2</u> <small>01/11/2/16</small> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>345</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured <u>1000</u>
VIII.	Start Time of Coring (24-hour): <u>0950</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <u>J 1/24/17</u> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>(Y)</u>  Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>345</u>
XIII.	<p>Recovery: <u>jt 1/24/17</u></p> <ul style="list-style-type: none"> <li>- Recovery (ft): <u>18"</u></li> <li>- Recovery (%): <u>100</u></li> </ul> <p style="text-align: center;"> <math display="block">\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math> </p> <p>Gaps Identified <u>NO</u></p> <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	<p>Final Disposition of Core (circle one):</p> <ul style="list-style-type: none"> <li>- <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Retained for Processing</span></li> <li>- Rejected</li> </ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>345</u>
XVII.	Notes (see logbook for additional information): <u>2' CORE TUBE</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 1600  
 Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>350</u> Water Depth and precise time measured <u>10.0 - 0900</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672584</u> - Easting (ft): <u>593401</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672581.1</u> - Easting (ft): <u>593398.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during Q-Review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>350</u>
VII.	Water Depth at Time of Coring (ft): <u>0900</u> <span style="float: right;">J# 1/24/17</span> Precise Time When Water Depth Was Measured <u>10.0</u>
VIII.	Start Time of Coring (24-hour): <sup>PID NAIVE</sup> <del>0845</del> <u>0855</u> End Time of Coring (24-hour): <u>0900</u>
IX.	Penetration: <sup>J# 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12<sup>4</sup></u></li> <li>- Actual Penetration (ft): <u>12<sup>4</sup></u></li> <li>- Penetration Achieved (Y or N): <u>NO</u></li> </ul> <p>Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>390</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0900

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>339</u> Water Depth and precise time measured <u>10.0 - 0915</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674084</u> - Easting (ft): <u>593746</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674084.1</u> - Easting (ft): <u>593790.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Reports.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>3309</u>
VII.	Water Depth at Time of Coring (ft): <u>10</u> Precise Time When Water Depth Was Measured <u>0915</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0925</u>
IX.	Penetration: <sup>J# 1/24/17</sup> - Target Penetration (ft): <u>21"</u> - Actual Penetration (ft): <u>21"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.  
 Recovery (%) was corrected on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>1/12</u>
XII.	Core ID: <u>339</u>
XIII.	Recovery: <u># 1/24/17</u> - Recovery (in): <u>21"</u> - Recovery (%): <u># 100</u> <sup>1/24/17</sup>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>No</u>  <hr/> <hr/> <hr/> <hr/> <p><u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u>  <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u></p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>339</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0915

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>339-2</u> Water Depth and precise time measured <u>10.6 - 0920</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674084</u> - Easting (ft): <u>593746</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674090.3</u> - Easting (ft): <u>593752.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during  
 QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>339</u>
VII.	Water Depth at Time of Coring (ft): <u>0920</u> Precise Time When Water Depth Was Measured <u>10.0</u> <span style="float: right;">JH 1/24/17</span>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0925</u>
IX.	Penetration: <span style="float: right;">JH 1/24/17</span> - Target Penetration (ft): <u>18"</u> - Actual Penetration (ft): <u>18"</u> - Penetration Achieved (Y or N): <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>339-2</u>
XVII.	Notes (see logbook for additional information): <u>* 2' CORE TUBE</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time <sup>PJ 11/2/12</sup> ~~100~~ 0920

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>339-3</u> Water Depth and precise time measured <u>10.1 - 0925</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674084</u> - Easting (ft): <u>593746</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>674098.5</u> - Easting (ft): <u>593758.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Time adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.  
 Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/2</u>
VI.	Core ID: <u>339</u>
VII.	Water Depth at Time of Coring (ft): <u>10.1</u> Precise Time When Water Depth Was Measured <u>0925</u>
VIII.	Start Time of Coring (24-hour): <u>0915</u> End Time of Coring (24-hour): <u>0925</u>
IX.	Penetration: <u>1/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>18"</u></li> <li>- Actual Penetration (ft): <u>18"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>339-2</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (ft): <u>16<sup>11</sup></u> - Recovery (%): <u>89</u>  $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$  Gaps Identified <u>NO</u>  <hr/> <hr/> <hr/> <hr/> <p><small>If Recovery (%) ≥ 75%, then recovery is acceptable.          If Recovery (%) &lt; 75%, then refer to SOP No. 3</small></p>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>339-3</u>
XVII.	Notes (see logbook for additional information): <u>* 2' core tube</u>     
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0925  
 Accepted By JH Company Arcadis Date 11/2 Time 1445  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>354</u> Water Depth and precise time measured <u>8.0 - 0830</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671343</u> - Easting (ft): <u>592966</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671341.0</u> - Easting (ft): <u>592969.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>354</u>
VII.	Water Depth at Time of Coring (ft): <u>8.0</u> Precise Time When Water Depth Was Measured <u>0830</u>
VIII.	Start Time of Coring (24-hour): <u>0820</u> End Time of Coring (24-hour): <u>0830</u>
IX.	Penetration: <sup>5<sup>th</sup> 1/24/17</sup> - Target Penetration (ft): <u>16"</u> - Actual Penetration (ft): <u>16"</u> - Penetration Achieved (Y or N): <input checked="" type="checkbox"/> Y <input type="checkbox"/> N  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>354</u>
XIII.	Recovery: <u>5*1/24/17</u> - Recovery (ft): <u>15"</u> - Recovery (%): <u>74</u> $\text{Recovery (\%)} = \frac{\text{Recovery (ft)} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$ Gaps Identified <u>NO</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>354</u>
XVII.	Notes (see logbook for additional information): <u>* 2' CORE TUBE</u>
XVIII	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0830

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>349</u> Water Depth and precise time measured <u>5.6 - 0810</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672805</u> - Easting (ft): <u>592457</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672808.7</u> - Easting (ft): <u>592459.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>349</u>
VII.	Water Depth at Time of Coring (ft): <u>5.6</u> Precise Time When Water Depth Was Measured <u>0810</u>
VIII.	Start Time of Coring (24-hour): <u>0816</u> End Time of Coring (24-hour): <u>0815</u>
IX.	Penetration: <sup>jt 1/24/17</sup> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>12"</u></li> <li>- Actual Penetration (ft): <u>12"</u></li> <li>- Penetration Achieved (Y or N): <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>349</u>
XVII.	Notes (see logbook for additional information): <u>2' CORE TUBE</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0810  
Accepted By JH Company Arcadis Date 11/2 Time 1445  
Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>349</u> Water Depth and precise time measured <u>5.7 - 0815</u>
III.	Sediment Collection Method (circle one): <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672805</u> - Easting (ft): <u>592457</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672818.3</u> - Easting (ft): <u>592461.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 11/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>349</u>
VII.	Water Depth at Time of Coring (ft): <u>5.8 - 0315</u> Precise Time When Water Depth Was Measured <u>0315</u>
VIII.	Start Time of Coring (24-hour): <u>0810</u> End Time of Coring (24-hour): <u>0315</u>
IX.	Penetration: <u>#124/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (R): <u>12"</u></li> <li>- Actual Penetration (R): <u>12"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>349</u>
XVII.	Notes (see logbook for additional information):  <u>2' CORE TUBE</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0815  
Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>344</u> Water Depth and precise time measured <u>8-3-0800</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>473893</u> - Easting (ft): <u>593022</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673895.7</u> - Easting (ft): <u>593019.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>1/1/2</u>
VI.	Core ID: <u>344</u>
VII.	Water Depth at Time of Coring (ft): <u>8.3</u> Precise Time When Water Depth Was Measured <u>0800</u>
VIII.	Start Time of Coring (24-hour): <u>0755</u> End Time of Coring (24-hour): <u>0800</u>
IX.	Penetration: <u>JA 1/24/17</u> - Target Penetration (ft): <u>16"</u> - Actual Penetration (ft): <u>16"</u> - Penetration Achieved (Y or N): <u>(Y)</u> Refusal? (circle one): Yes <u>(N)</u> Depth of Refusal _____
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

Recovery units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/2</u>
XII.	Core ID: <u>344</u>
XIII.	Recovery: <u>JA 1/24/17</u> - Recovery (in): <u>16"</u> - Recovery (%): <u>100</u> $\text{Recovery (\%)} = \frac{\text{Recovery (f)} - \text{Gaps (f)}}{\text{Actual Penetration (f)}} \times 100$ Gaps Identified <u>No</u>  <u>If Recovery (%) ≥ 75%, then recovery is acceptable.</u> <u>If Recovery (%) &lt; 75%, then refer to SOP No. 3</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected If rejected, reason for rejection:   

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>344</u>
XVII.	Notes (see logbook for additional information): <u>2' core tube</u>
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0800

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/2</u>
II.	Core ID: <u>338</u> Water Depth and precise time measured <u>8.0 - 0750</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675048</u> - Easting (ft): <u>593265</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>675050.1</u> - Easting (ft): <u>593266.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

Target and actual penetration depth units were corrected to indicate inches on 1/24/17 during @C review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 2 of 4)

V.	Date: <u>11/2</u>
VI.	Core ID: <u>330</u>
VII.	Water Depth at Time of Coring (ft): <u>8-0</u> Precise Time When Water Depth Was Measured <u>0750</u>
VIII.	Start Time of Coring (24-hour): <u>0740</u> End Time of Coring (24-hour): <u>0750</u>
IX.	Penetration: <u>01/24/17</u> <ul style="list-style-type: none"> <li>- Target Penetration (ft): <u>13"</u></li> <li>- Actual Penetration (ft): <u>13"</u></li> <li>- Penetration Achieved (Y or N): <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/2</u>
XVI.	Core ID: <u>338</u>
XVII.	Notes (see logbook for additional information): <u>* 2' CORE TUBE</u>    
XVIII.	Name of Person Responsible for Log: <u>P.Dougher</u>

Relinquished By PJD Company Arcadis Date 11/2 Time 0750

Accepted By JH Company Arcadis Date 11/2 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>380</u> Water Depth and precise time measured <u>14.7 - 1030</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679005.</u> - Easting (ft): <u>598319.0</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679955.1</u> - Easting (ft): <u>598427.9</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SMA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>N</u> (Y or N)

\* MOVED 180' N. OUT OF utility buffer

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>300</u>
VII.	Water Depth at Time of Coring (ft): <u>12.7</u> Precise Time When Water Depth Was Measured <u>1030</u>
VIII.	Start Time of Coring (24-hour): <u>1020</u> End Time of Coring (24-hour): <u>1050</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>380</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>18"</u></li><li>- Recovery Acceptable (<u>Y</u> of N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>390</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Argonius Date 11/3 Time 1230  
 Accepted By JH Company Arcoadis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>326-1</u> Water Depth and precise time measured <u>14.7 - 1040</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680615</u> - Easting (ft): <u>597252.</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680676.8</u> - Easting (ft): <u>597286.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>N</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>N</u> (Y or N)

\* Moved location N' OUT OF utility buffer

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/13</u>
VI.	Core ID: <u>326-1</u>
VII.	Water Depth at Time of Coring (ft): <u>12.7 - 1040</u> Precise Time When Water Depth Was Measured <u>1040</u>
VIII.	Start Time of Coring (24-hour): <u>1040</u> End Time of Coring (24-hour): <u>1050</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>326</u>
XIII.	Recovery: - Recovery (in): <u>16"</u> - Recovery Acceptable (Y or N): <u>(Y)</u>  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one):  - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>326-1</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company Arcadis Date 11/3 Time 1230  
 Accepted By JH Company Arcadis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>326-2</u> Water Depth and precise time measured <u>14.8 1045</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680615</u> - Easting (ft): <u>597252</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680691.2</u> - Easting (ft): <u>597291.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N) <u>(N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N) <u>(N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>326-2</u>
VII.	Water Depth at Time of Coring (ft): <u>14.8 - 1045</u> Precise Time When Water Depth Was Measured <u>1045</u>
VIII.	Start Time of Coring (24-hour): <u>1040</u> End Time of Coring (24-hour): <u>1050</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>13</u> - Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>326-2</u>
XIII.	Recovery: - Recovery (in): <u>14 1/2</u> - Recovery Acceptable (Y or N): <u>(Y)</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>1/13</u>
XVI.	Core ID: <u>326-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By ASD Company Arcadis Date 1/13 Time 1230

Accepted By JH Company Arcadis Date 1/13 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>32e-3</u> Water Depth and precise time measured <u>1050-14.8</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680619.0</u> - Easting (ft): <u>597252.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>680714</u> - Easting (ft): <u>597286.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <u>N</u> )  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <u>N</u> )

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>326-3</u>
VII.	Water Depth at Time of Coring (ft): <u>14.8</u> Precise Time When Water Depth Was Measured <u>1050</u>
VIII.	Start Time of Coring (24-hour): <u>1040</u> End Time of Coring (24-hour): <u>1050</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>326-3</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>324-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 11/3 Time 1230

Accepted By JH Company Arcadis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>341</u> Water Depth and precise time measured <u>12.0 - 1115</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673090</u> - Easting (ft): <u>596269</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>673039.4</u> - Easting (ft): <u>596271.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) <sup>PSD 11/3/16</sup> - Northing (ft): <u><del>N/A</del> SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>341</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> Precise Time When Water Depth Was Measured <u>1115</u>
VIII.	Start Time of Coring (24-hour): <u>1110</u> End Time of Coring (24-hour): <u>1115</u>
IX.	<p>Penetration:</p> <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24"</u></li> <li>- Target Penetration (in): <u>18"</u></li> <li>- Actual Penetration (in): <u>18"</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	<p>PID Reading: <u>N/A</u></p> <p><b>Breathing Zone Action Levels:</b>          For total hydrocarbon levels &gt;5 ppm, upgrade to Level C PPE.          For total hydrocarbon levels &gt;25 ppm, stop work.          For hydrogen sulfide levels &gt;5 ppm, stop work, evacuate work area, and ventilate.</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>341</u>
XIII.	Recovery: - Recovery (in): <u>13'</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>341</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/3 Time 1230

Accepted By JH Company Arcadis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>327</u> Water Depth and precise time measured <u>12-0950</u>
III.	Sediment Collection Method (circle one): - <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679672</u> - Easting (ft): <u>599234</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679680.2</u> - Easting (ft): <u>59923.3</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u> Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

\* moved out of utility buffer zone

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>327</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> Precise Time When Water Depth Was Measured <u>0945</u>
VIII.	Start Time of Coring (24-hour): <u>0945</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>327</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16"</u></li><li>- Recovery Acceptable (<input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>327</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By ASD Company Arctid's Date 11/3 Time 1230

Accepted By JH Company Arctid's Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>327-2</u> Water Depth and precise time measured <u>12-0950</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679672</u> - Easting (ft): <u>599224</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679694.3</u> - Easting (ft): <u>599223.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ ( <input checked="" type="radio"/> Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>327</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> Precise Time When Water Depth Was Measured <u>0950</u>
VIII.	Start Time of Coring (24-hour): <u>0945</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>327-2</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16"</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>327.2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arumis Date 11/3 Time 1230

Accepted By JH Company Aradis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Easting coordinate corrected on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>328</u> Water Depth and precise time measured <u>10.5 - 0930</u>
III.	Sediment Collection Method (circle one): <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679043</u> - Easting (ft): <u><del>59912.0</del> 599812</u> <u>JH 1/24/17</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679043.3</u> - Easting (ft): <u>599833.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u><del>(Y)</del> (N)</u> Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SMA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> (N)

\* Moved 20' <sup>North</sup> ~~South~~ out of utility  
Butler (250)  
1/24/17

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>328</u>
VII.	Water Depth at Time of Coring (ft): <u>10.5</u> Precise Time When Water Depth Was Measured <u>0930</u>
VIII.	Start Time of Coring (24-hour): <u>0925</u> End Time of Coring (24-hour): <u>0930</u>
IX.	Penetration: - Length of Core liner (in): <u>24"</u> - Target Penetration (in): <u>18"</u> - Actual Penetration (in): <u>18"</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>4/3</u>
XII.	Core ID: <u>328</u>
XIII.	Recovery: - Recovery (in): <u>15"</u> - Recovery Acceptable (Y or N): <u>(Y)</u> <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <del>378</del> <u>329</u> <small>PSD 11/3/16</small>
XVII.	Notes (see logbook for additional information):  <u>Moved N. out of utility buffer</u>    
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company ARCADIS Date 11/3 Time 1230  
 Accepted By JH Company ARCADIS Date 11/3 Time 1240  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>329</u> Water Depth and precise time measured <u>8.6 - 0915</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678773.0</u> - Easting (ft): <u>600357.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678766.4</u> - Easting (ft): <u>600346.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>329</u>
VII.	Water Depth at Time of Coring (ft): <u>8.6</u> Precise Time When Water Depth Was Measured <u>0918</u>
VIII.	Start Time of Coring (24-hour): <u>0910</u> End Time of Coring (24-hour): <u>0915</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>2411</u></li> <li>- Target Penetration (in): <u>1811</u></li> <li>- Actual Penetration (in): <u>1311</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>329</u>
XIII.	Recovery: - Recovery (in): <u>15"</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) &gt; 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>329</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSJ</u>

Relinquished By PSJ Company Arcadis Date 11/3 Time 1230  
 Accepted By JH Company Arcadis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>382</u> Water Depth and precise time measured <u>12.0035</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678815.0</u> - Easting (ft): <u>598275.</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678819.1</u> - Easting (ft): <u>598276.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>382</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> Precise Time When Water Depth Was Measured <u>0835</u>
VIII.	Start Time of Coring (24-hour): <u>0830</u> End Time of Coring (24-hour): <u>0835</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>12</u></li> <li>- Actual Penetration (in): <u>12</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: _____  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>382</u>
XIII.	Recovery: - Recovery (in): <u>12"</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>382</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/3 Time 0835  
 Accepted By JH Company Arcadis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>381</u> Water Depth and precise time measured <u>14.3-0850</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679142.0</u> - Easting (ft): <u>598038.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>679158.0</u> - Easting (ft): <u>598030.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>381</u>
VII.	Water Depth at Time of Coring (ft): <u>0850</u> Precise Time When Water Depth Was Measured <u>14.3</u>
VIII.	Start Time of Coring (24-hour): <u>0840</u> End Time of Coring (24-hour): <u>0850</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18"</u> - Actual Penetration (in): <u>18"</u> - Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>381</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>18"</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>381</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company ARCADIS Date 11/3 Time 1230  
 Accepted By JH Company ARCADIS Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>11/3</u>
II.	Core ID: <u>331</u> Water Depth and precise time measured <u>10.6 0820</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678383</u> - Easting (ft): <u>599481</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678376.2</u> - Easting (ft): <u>599483.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>331</u>
VII.	Water Depth at Time of Coring (ft): <u>10.6</u> Precise Time When Water Depth Was Measured <u>0320</u>
VIII.	Start Time of Coring (24-hour): <u>0315</u> End Time of Coring (24-hour): <u>0820</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>16</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: _____  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>331</u>
XIII.	Recovery: - Recovery (in): <u>18"</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) &gt; 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/3</u>
XVI.	Core ID: <u>331</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Aurora Date 11/3 Time 1020  
 Accepted By JH Company Arcadis Date 11/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>4/3</u>
II.	Core ID: <u>332</u> Water Depth and precise time measured <u>5.8 - 0800</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678064.0</u> - Easting (ft): <u>599964.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>678050.6</u> - Easting (ft): <u>599933.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/3</u>
VI.	Core ID: <u>352</u>
VII.	Water Depth at Time of Coring (ft): <u>5.8</u> Precise Time When Water Depth Was Measured <u>0800</u>
VIII.	Start Time of Coring (24-hour): <u>0750</u> End Time of Coring (24-hour): <u>0800</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18"</u></li> <li>- Actual Penetration (in): <u>18"</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/3</u>
XII.	Core ID: <u>332</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>1/3</u>
XVI.	Core ID: <u>372</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Bender Date 1/3 Time 0900  
 Accepted By JH Company Arcadis Date 1/3 Time 1240

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Northing coordinate corrected on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>342</u> Water Depth and precise time measured <u>8.7 - 10:15</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <sup>on 1/24/17</sup> <u>6722475</u> - Easting (ft): <u>597376</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>6724759</u> - Easting (ft): <u>597379.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>342</u>
VII.	Water Depth at Time of Coring (ft): <u>10.10</u> Precise Time When Water Depth Was Measured <del>10</del> <u>8.7</u> <small>8:11/12</small>
VIII.	Start Time of Coring (24-hour): <u>1010</u> End Time of Coring (24-hour): <u>1015</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>12</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>242</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16"</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>342</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/7 Time 1130  
 Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>346</u> Water Depth and precise time measured <u>8.3 - 0900</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672637</u> - Easting (ft): <u>595222</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672632.1</u> - Easting (ft): <u>595222.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>346</u>
VII.	Water Depth at Time of Coring (ft): <u>8.3</u> Precise Time When Water Depth Was Measured <u>0900</u>
VIII.	Start Time of Coring (24-hour): <u>0830</u> End Time of Coring (24-hour): <u>0900</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>16"</u></li> <li>- Actual Penetration (in): <u>16</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>3A6</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>346</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/7 Time 1130

Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>351</u> Water Depth and precise time measured <u>9.3 - 0915</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671329.0</u> - Easting (ft): <u>594925.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671828.0</u> - Easting (ft): <u>594923.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>351</u>
VII.	Water Depth at Time of Coring (ft): <u>9.3</u> Precise Time When Water Depth Was Measured <u>0915</u>
VIII.	Start Time of Coring (24-hour): <u>0910</u> End Time of Coring (24-hour): <u>0915</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24"</u></li> <li>- Target Penetration (in): <u>18"</u></li> <li>- Actual Penetration (in): <u>13"</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or N)*: _____</li> </ul> Refusal? (circle one): Yes <input checked="" type="radio"/> No    Depth of Refusal _____ <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <p><b>Breathing Zone Action Levels:</b>  For total hydrocarbon levels &gt;5 ppm, upgrade to Level C PPE.  For total hydrocarbon levels &gt;25 ppm, stop work.  For hydrogen sulfide levels &gt;5 ppm, stop work, evacuate work area, and ventilate.</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>351</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16"</u></li><li>- Recovery Acceptable (Y or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>391</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company ARCADIS Date 11/7 Time 1130  
 Accepted By ZML Company ARCADIS Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>399</u> Water Depth and precise time measured <u>9.3 - 0930</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671022</u> - Easting (ft): <u>594622</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671024.6</u> - Easting (ft): <u>594626.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>355</u>
VII.	Water Depth at Time of Coring (ft): <u>0930</u> Precise Time When Water Depth Was Measured <u>9.3</u>
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0930</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <input checked="" type="radio"/> Y <input type="radio"/> N  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>355</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>164</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>355</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 11/7 Time 1130

Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>343</u> Water Depth and precise time measured <u>5.6-1030</u>
III.	Sediment Collection Method (circle one): <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672418</u> - Easting (ft): <u>597349</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>67241.5</u> - Easting (ft): <u>597845.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>343</u>
VII.	Water Depth at Time of Coring (ft): <u>5.6</u> Precise Time When Water Depth Was Measured <u>1030</u>
VIII.	Start Time of Coring (24-hour): <u>1020</u> End Time of Coring (24-hour): <u>1030</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>36</u></li> <li>- Target Penetration (in): <u>24</u></li> <li>- Actual Penetration (in): <u>24</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>343</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>21"</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> (Y or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>343</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company ACCADIS Date 11/7 Time 1130

Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>358</u> Water Depth and precise time measured <u>8.3 - 0730</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>669414</u> - Easting (ft): <u>503994</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>669416.4</u> - Easting (ft): <u>503993.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SHA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/17</u>
VI.	Core ID: <u>350</u>
VII.	Water Depth at Time of Coring (ft): <u>0.30</u> Precise Time When Water Depth Was Measured <u>8.3</u> <u>2:54</u> <u>1/24/17</u>
VIII.	Start Time of Coring (24-hour): <u>0720</u> End Time of Coring (24-hour): <u>0730</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: _____  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>358</u>
XIII.	Recovery: - Recovery (in): <u>15"</u> - Recovery Acceptable (Y or N): <u>0</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>358</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By ASD Company Acropolis Date 11/7 Time 1130

Accepted By ZML Company Acropolis Date 11/8 Time 0745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>357</u> Water Depth and precise time measured <u>8.6 - 0745</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>669939.0</u> - Easting (ft): <u>595021.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>669933.7</u> - Easting (ft): <u>595023.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>357</u>
VII.	Water Depth at Time of Coring (ft): <u>8.6 - 0745</u> Precise Time When Water Depth Was Measured <u>0745</u>
VIII.	Start Time of Coring (24-hour): <u>0740</u> End Time of Coring (24-hour): <u>0745</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>16"</u></li> <li>- Actual Penetration (in): <u>16"</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>357</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13"</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>357</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Accordis Date 11/7 Time 1135

Accepted By ZML Company Accordis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>35L</u> Water Depth and precise time measured <u>8.0 - 0800</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>670734</u> - Easting (ft): <u>595338</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>670733.66</u> - Easting (ft): <u>595339.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>396</u>
VII.	Water Depth at Time of Coring (ft): <u>0300</u> Precise Time When Water Depth Was Measured <u>0.0</u>
VIII.	Start Time of Coring (24-hour): <u>0755</u> End Time of Coring (24-hour): <u>1300</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>12</u></li> <li>- Actual Penetration (in): <u>12</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>396</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16"</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>356</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 11/7 Time 1130  
 Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>392</u> Water Depth and precise time measured <u>8.2 0815</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671804</u> - Easting (ft): <u>595488</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671799.7</u> - Easting (ft): <u>595485.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>392</u>
VII.	Water Depth at Time of Coring (ft): <u>8.2</u> Precise Time When Water Depth Was Measured <u>0815</u>
VIII.	Start Time of Coring (24-hour): <u>0840</u> End Time of Coring (24-hour): <u>0815</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>392</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17"</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>352</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By AW PSD Company ANNAPOLIS Date 11/7 Time 1130

Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>3A7</u> Water Depth and precise time measured <u>8.3 - 845</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672334</u> - Easting (ft): <u>590974</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>672336.8</u> - Easting (ft): <u>595976.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u><input checked="" type="radio"/></u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u><input checked="" type="radio"/></u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>347</u>
VII.	Water Depth at Time of Coring (ft): <u>8.3</u> Precise Time When Water Depth Was Measured <u>0845</u>
VIII.	Start Time of Coring (24-hour): <u>0340</u> End Time of Coring (24-hour): <u>0845</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24"</u></li> <li>- Target Penetration (in): <u>16"</u></li> <li>- Actual Penetration (in): <u>16"</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <u>N</u> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>347</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>10"</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>347</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Academics Date 11/7 Time 1130

Accepted By ZML Company Aradis Date 1/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>353</u> Water Depth and precise time measured <u>9.0 - 0945</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671216</u> - Easting (ft): <u>596456</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>671218.9</u> - Easting (ft): <u>596454.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/7</u>
VI.	Core ID: <u>353</u>
VII.	Water Depth at Time of Coring (ft): <u>9.0</u> Precise Time When Water Depth Was Measured <u>0945</u>
VIII.	Start Time of Coring (24-hour): <u>0940</u> End Time of Coring (24-hour): <u>0945</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>13</u> - Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u>  Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/7</u>
XII.	Core ID: <u>343</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16"</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>393</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/7 Time 1130  
 Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/7</u>
II.	Core ID: <u>348</u> Water Depth and precise time measured <u>9.7 - 1000</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>472016</u> - Easting (ft): <u>596773</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>472017.2</u> - Easting (ft): <u>596769.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/7</u>
VI.	Core ID: <u>348</u>
VII.	Water Depth at Time of Coring (ft): <u>9.7</u> Precise Time When Water Depth Was Measured <u>1000</u>
VIII.	Start Time of Coring (24-hour): <u>0956</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18"</u></li> <li>- Actual Penetration (in): <u>13"</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <p><b>Breathing Zone Action Levels:</b>  For total hydrocarbon levels &gt;5 ppm, upgrade to Level C PPE.  For total hydrocarbon levels &gt;25 ppm, stop work.  For hydrogen sulfide levels &gt;5 ppm, stop work, evacuate work area, and ventilate.</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>1/7</u>
XII.	Core ID: <u>348</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17"</u></li><li>- Recovery Acceptable (<input checked="" type="radio"/> Y or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/7</u>
XVI.	Core ID: <u>348</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/7 Time 1130  
 Accepted By ZML Company Arcadis Date 11/8 Time 745

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>182</u> Water Depth and precise time measured <u>8:7 - 10:30</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664347</u> - Easting (ft): <u>588992</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664346.5</u> - Easting (ft): <u>588990.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>182</u>
VII.	Water Depth at Time of Coring (ft): <u>8.7</u> Precise Time When Water Depth Was Measured <u>1030</u>
VIII.	Start Time of Coring (24-hour): <u>1030</u> End Time of Coring (24-hour): <u>1040</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>1/9</u>
XII.	Core ID: <u>182</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> Y or N): _____</li></ul> <p><u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u></p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>182</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Acumilis Date 11/9 Time 1600  
Accepted By NC Company Acumilis Date 11/9 Time 1600  
Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>182</u> Water Depth and precise time measured <u>8.7 1035</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664347</u> - Easting (ft): <u>588992</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664326.8</u> - Easting (ft): <u>588981.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/9</u>
VI.	Core ID: <u>182</u>
VII.	Water Depth at Time of Coring (ft): <u>8.7</u> Precise Time When Water Depth Was Measured <u>1035</u>
VIII.	Start Time of Coring (24-hour): <u>1030</u> End Time of Coring (24-hour): <u>1040</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>182</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable (<input checked="" type="radio"/> Y or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>182</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By ACMAS Company ASD Date 11/9 Time 1600  
 Accepted By NC Company Arachis Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>182</u> Water Depth and precise time measured <u>8.7 1040</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664347</u> - Easting (ft): <u>588992</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664311.7</u> - Easting (ft): <u>588967</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>132</u>
VII.	Water Depth at Time of Coring (ft): <u>9.7</u> Precise Time When Water Depth Was Measured <u>1040</u>
VIII.	Start Time of Coring (24-hour): <u>1020</u> End Time of Coring (24-hour): <u>1040</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>NA</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>182</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>1/9</u>
XVI.	Core ID: <u>182</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Acme 75 Date 1/9 Time 1000

Accepted By AC Company Acme 75 Date 1/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>181</u> Water Depth and precise time measured <u>9.9 - 1100</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>644646</u> - Easting (ft): <u>588427</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664645.4</u> - Easting (ft): <u>588425.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>181</u>
VII.	Water Depth at Time of Coring (ft): <u>9.9</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1050</u> End Time of Coring (24-hour): <u>1100</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>181</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>18</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>181</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Accrois Date 11/9 Time 1600  
 Accepted By nc Company Accrois Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>180</u> Water Depth and precise time measured <u>8.0 - 1120</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664943</u> - Easting (ft): <u>587897</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664943.7</u> - Easting (ft): <u>587860.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>5AA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>100</u>
VII.	Water Depth at Time of Coring (ft): <u>1120</u> Precise Time When Water Depth Was Measured <u>8.0</u> <sup>5 # 11/24/17</sup>
VIII.	Start Time of Coring (24-hour): <u>1115</u> End Time of Coring (24-hour): <u>1120</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>68</u> - Actual Penetration (in): <u>13</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>180</u>
XIII.	Recovery: - Recovery (in): <u>6"</u> <i>15 excan 2c 11/10/16</i> - Recovery Acceptable <input checked="" type="radio"/> or N): _____  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>180</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company ARCADIS Date 11/9 Time 1600  
 Accepted By MC Company Accels Date 1/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>179</u> Water Depth and precise time measured <u>7.9-1145</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>665483</u> - Easting (ft): <u>587411</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>665402.7</u> - Easting (ft): <u>587413.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>179</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>1145</u>
VIII.	Start Time of Coring (24-hour): <u>1140</u> End Time of Coring (24-hour): <u>1445</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> Y or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>179</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>179</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>RJD</u>

Relinquished By RJD Company Accadis Date 11/9 Time 1600

Accepted By MC Company Acady Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>360</u> Water Depth and precise time measured <u>7.8 - 1200</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663075</u> - Easting (ft): <u>591330</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663075.6</u> - Easting (ft): <u>591332.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>5A2</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>368</u>
VII.	Water Depth at Time of Coring (ft): <u>7.8</u> Precise Time When Water Depth Was Measured <u>1200</u>
VIII.	Start Time of Coring (24-hour): <u>1158</u> End Time of Coring (24-hour): <u>1200</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>21</u></li> <li>- Actual Penetration (in): <u>21</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>368</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>21</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>369</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company ARCADIS Date 11/9 Time 1600  
 Accepted By [Signature] Company ARCADIS Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>366</u> Water Depth and precise time measured <u>12.5 - 1230</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>665454</u> - Easting (ft): <u>592315</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>665458.1</u> - Easting (ft): <u>592316.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAD</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>366</u>
VII.	Water Depth at Time of Coring (ft): <u>12.5</u> Precise Time When Water Depth Was Measured <u>1230</u>
VIII.	Start Time of Coring (24-hour): <u>1220</u> End Time of Coring (24-hour): <u>1230</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>366</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> Y or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>366</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Alconic Date 11/9 Time 1000  
 Accepted By NC Company Acadys Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>365</u> Water Depth and precise time measured <u>15-5-1245</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>666246</u> - Easting (ft): <u>592412</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>666175.7</u> - Easting (ft): <u>592022.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

\* Moved SWTH DUE TO MOORED BARGE - TIERRA BK.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: _____ 11/9
VI.	Core ID: _____ 365
VII.	Water Depth at Time of Coring (ft): _____ 15.5 Precise Time When Water Depth Was Measured _____ 1245
VIII.	Start Time of Coring (24-hour): _____ 1240 End Time of Coring (24-hour): _____ 1245
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): _____ 24</li> <li>- Target Penetration (in): _____ 18</li> <li>- Actual Penetration (in): _____ 18</li> <li>- Acceptable Penetration Achieved (Y or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: _____ N/A  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: _____ 11/9 _____
XII.	Core ID: _____ 365 _____
XIII.	Recovery: - Recovery (in): _____ 13 _____ - Recovery Acceptable (Y or N): _____  If Recovery (in) $\geq$ 9 inches, then recovery is acceptable. If Recovery (in) $<$ 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)
XIV.	Final Disposition of Core (circle one): - Retained for Processing - Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>365</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company ACCADIS Date 11/9 Time 1600  
 Accepted By [Signature] Company Accadis Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>362</u> Water Depth and precise time measured <u>15. 1300</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>667828</u> - Easting (ft): <u>593318</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>667833.3</u> - Easting (ft): <u>593317.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: _____ 11/9 _____
VI.	Core ID: _____ 362 _____
VII.	Water Depth at Time of Coring (ft): _____ 15.0 _____ Precise Time When Water Depth Was Measured _____ 1300 _____
VIII.	Start Time of Coring (24-hour): _____ 1250 _____ End Time of Coring (24-hour): _____ 1300 _____
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): _____ 24 _____</li> <li>- Target Penetration (in): _____ 19 _____</li> <li>- Actual Penetration (in): _____ 19 _____</li> <li>- Acceptable Penetration Achieved (Y or N)*: _____ <input checked="" type="radio"/> No _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: _____ N/A _____ <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>362</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>19<sup>v</sup></u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>342</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>MD</u>

Relinquished By MD Company Accuris Date 11/9 Time 1600  
 Accepted By NC Company Accuris Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>359</u> Water Depth and precise time measured <u>11.2 - 1330</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>66946</u> - Easting (ft): <u>594432</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>669498.9</u> - Easting (ft): <u>594436.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>359</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured <u>1330</u>
VIII.	Start Time of Coring (24-hour): <u>1320</u> End Time of Coring (24-hour): <u>1330</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>16</u></li> <li>- Actual Penetration (in): <u>16</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>359</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13<sup>4</sup></u></li><li>- Recovery Acceptable (<input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>359</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company ARCADIS Date 11/9 Time 1600  
 Accepted By [Signature] Company ARCADIS Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>361</u> Water Depth and precise time measured <u>11.2 - 1345</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>668335</u> - Easting (ft): <u>594385</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>668334.3</u> - Easting (ft): <u>594386.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>361</u>
VII.	Water Depth at Time of Coring (ft): <u>1340</u> Precise Time When Water Depth Was Measured <u>11.2</u>
VIII.	Start Time of Coring (24-hour): <u>1340</u> End Time of Coring (24-hour): <u>1345</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>361</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14"</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>361</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company ARCADIS Date 11/9 Time 1600  
 Accepted By NC Company ARCADIS Date 11/9 Time 11600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>360</u> Water Depth and precise time measured <u>12-2-1400</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>668619</u> - Easting (ft): <u>593657</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>668618.8</u> - Easting (ft): <u>593646.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>360</u>
VII.	Water Depth at Time of Coring (ft): <u>12.2</u> Precise Time When Water Depth Was Measured <u>1400</u>
VIII.	Start Time of Coring (24-hour): <u>1350</u> End Time of Coring (24-hour): <u>1400</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>360</u>
XIII.	Recovery: - Recovery (in): <u>14</u> - Recovery Acceptable <input checked="" type="radio"/> or N): _____ <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>360</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Acornis Date 11/9 Time 1600  
 Accepted By MC Company Acornis Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: _____ 11/9
II.	Core ID: _____ 363 Water Depth and precise time measured _____ 11.2-1415
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ 667535.0 - Easting (ft): _____ 594068  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ 667538.1 - Easting (ft): _____ 594070.2  Confirm initial core location coordinates are within 5 feet of target coordinates _____ <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ SIAA - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates _____ <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: _____	11/9
VI.	Core ID: _____	363
VII.	Water Depth at Time of Coring (ft): _____	11.2
	Precise Time When Water Depth Was Measured _____	145
VIII.	Start Time of Coring (24-hour): _____	1415
	End Time of Coring (24-hour): _____	1420
IX.	Penetration:	
	- Length of Core liner (in): _____	24
	- Target Penetration (in): _____	18
	- Actual Penetration (in): _____	18
	- Acceptable Penetration Achieved (Y or N)*: _____	
	Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____	
	*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)	
X.	PID Reading: _____	N/A
	<b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.	

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>363</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15"</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>363</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Alumina Date 11/9 Time 1600  
 Accepted By NC Company Arco Date 11/9 Time 1400  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>363</u> Water Depth and precise time measured <u>11.3 1420</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>667535</u> - Easting (ft): <u>594068</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>667510.8</u> - Easting (ft): <u>594084.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: _____	11/9
VI.	Core ID: _____	363
VII.	Water Depth at Time of Coring (ft): _____	JH/DA/17 → 1420 → 11.3
	Precise Time When Water Depth Was Measured _____	
VIII.	Start Time of Coring (24-hour): _____	1415
	End Time of Coring (24-hour): _____	1420
IX.	Penetration:	
	- Length of Core liner (in): _____	24
	- Target Penetration (in): _____	18
	- Actual Penetration (in): _____	18
	- Acceptable Penetration Achieved (Y or N)*: _____	O
	Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____	
	*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)	
X.	PID Reading: _____	N/A
	<b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.	

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>363</u>
XIII.	Recovery: - Recovery (in): <u>17</u> - Recovery Acceptable <input checked="" type="radio"/> Y or N): _____  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>363</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company ARCADIS Date 11/9 Time 1600  
 Accepted By [Signature] Company ARCADIS Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: _____ 11/9
II.	Core ID: _____ 364 Water Depth and precise time measured _____ 12.71430
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ 667101 - Easting (ft): _____ 593691  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ 667094.8 - Easting (ft): _____ 593675.9  Confirm initial core location coordinates are within 5 feet of target coordinates _____ (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ SIAA - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates _____ (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: _____ 11/9
VI.	Core ID: _____ 364
VII.	Water Depth at Time of Coring (ft): _____ 1430 Precise Time When Water Depth Was Measured _____ 12.7 <sup>25th 124/17</sup>
VIII.	Start Time of Coring (24-hour): _____ 1420 End Time of Coring (24-hour): _____ 1430
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): _____ 24</li> <li>- Target Penetration (in): _____ 18</li> <li>- Actual Penetration (in): _____ 19</li> <li>- Acceptable Penetration Achieved (Y or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: _____ N/A <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: _____ 11/9
XII.	Core ID: _____ 364
XIII.	Recovery: - Recovery (in): _____ 17 - Recovery Acceptable (Y of N): _____  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - Retained for Processing - Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: _____ 11/9
XVI.	Core ID: _____ 364
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: _____ PTO

Relinquished By PTO Company Arcadis Date 11/9 Time 1600  
 Accepted By AC Company Arcadis Date 11/9 Time 1600  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>183</u> Water Depth and precise time measured <u>7.7 - 1500</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664946</u> - Easting (ft): <u>586443</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664940.1</u> - Easting (ft): <u>586443.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>183</u>
VII.	Water Depth at Time of Coring (ft): <u>1500</u> Precise Time When Water Depth Was Measured <u>7.7</u> <sup>Est 12/4/17</sup>
VIII.	Start Time of Coring (24-hour): <u>1450</u> End Time of Coring (24-hour): <u>1500</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/9</u>
XII.	Core ID: <u>183</u>
XIII.	Recovery: - Recovery (in): <u>14</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>183</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 11/9 Time 1600  
 Accepted By AK Company Arcadis Date 11/9 Time 1600  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/9</u>
II.	Core ID: <u>184</u> Water Depth and precise time measured <u>8.6- 1515</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>665047</u> - Easting (ft): <u>536861</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>665045.4</u> - Easting (ft): <u>536899.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/9</u>
VI.	Core ID: <u>184</u>
VII.	Water Depth at Time of Coring (ft): <u>15.15</u> Precise Time When Water Depth Was Measured: <u>8.0</u> <u>12/4/17</u>
VIII.	Start Time of Coring (24-hour): <u>1510</u> End Time of Coring (24-hour): <u>1515</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/09</u>
XII.	Core ID: <u>184</u>
XIII.	Recovery: - Recovery (in): <u>14"</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/9</u>
XVI.	Core ID: <u>184</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company <sup>PSO 11/16</sup> ARCADS Date 11/9 Time 1600  
 Accepted By NC Company ARCADS Date 11/9 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>206</u> Water Depth and precise time measured <u>7.6 - 0730</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662932</u> - Easting (ft): <u>581659</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662985.7</u> - Easting (ft): <u>584652.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>206</u>
VII.	Water Depth at Time of Coring (ft): <u>7.6</u> Precise Time When Water Depth Was Measured <u>0738</u>
VIII.	Start Time of Coring (24-hour): <u>0720</u> End Time of Coring (24-hour): <u>730</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>206</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15"</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> (Y or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>206</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company ARCADIS Date 11/10 Time 1200

Accepted By JH Company ARCADIS Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>199</u> Water Depth and precise time measured <u>6.6 - 0750</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663460.0</u> - Easting (ft): <u>584948.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663460.9</u> - Easting (ft): <u>584943.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>199</u>
VII.	Water Depth at Time of Coring (ft): <u>6.6</u> Precise Time When Water Depth Was Measured <u>0750</u>
VIII.	Start Time of Coring (24-hour): <u>0745</u> End Time of Coring (24-hour): <u>0750</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13<sup>16</sup></u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>199</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>199</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 11/10 Time 1200  
 Accepted By JH Company Arcadis Date 11/10 Time 1200  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>200</u> Water Depth and precise time measured <u>8.9 - 0805</u>
III.	Sediment Collection Method (circle one):  - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663373</u> - Easting (ft): <u>585713</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663374.8</u> - Easting (ft): <u>585720.1</u> <del>PIN 11/10/16</del> <u>585713.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="checkbox"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="checkbox"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>700</u>
VII.	Water Depth at Time of Coring (ft): <u>89</u> Precise Time When Water Depth Was Measured <u>805</u>
VIII.	Start Time of Coring (24-hour): <u>0900</u> End Time of Coring (24-hour): <u>0805</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>4/10</u>
XII.	Core ID: <u>200</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>200</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By ASD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>194</u> Water Depth and precise time measured <u>8.0 - 0820</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663529.0</u> - Easting (ft): <u>586394.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663527.2</u> - Easting (ft): <u>586392.0</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/10</u>
VI.	Core ID: <u>194</u>
VII.	Water Depth at Time of Coring (ft): <u>0820</u> <i>g. 030110/16</i> Precise Time When Water Depth Was Measured <u>8</u>
VIII.	Start Time of Coring (24-hour): <u>0820</u> End Time of Coring (24-hour): <u>0830</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>10</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u> Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>4/10</u>
XII.	Core ID: <u>194</u>
XIII.	Recovery: - Recovery (in): <sup>0304/10/16</sup> <del>18</del> <u>14</u> - Recovery Acceptable (Y or N): <u>Y</u> <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>194</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By PTP Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Water depth added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>194</u> Water Depth and precise time measured <u>0825 - 8.0</u>
III.	Sediment Collection Method (circle one): <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663929</u> - Easting (ft): <u>586394</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663919.4</u> - Easting (ft): <u>586395.2</u> Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="checkbox"/> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="checkbox"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>194</u>
VII.	Water Depth at Time of Coring (ft): <u>0825</u> <u>8</u> <u>124/17</u> Precise Time When Water Depth Was Measured _____
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0830</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (X or N)*: <u>X</u> Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>194</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 4 of 4)**

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>194</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>194</u> Water Depth and precise time measured <u>8.0 0830</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663929</u> - Easting (ft): <u>586494</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663508.4</u> - Easting (ft): <u>586398.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u><del>Y</del> (N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(X)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>194</u>
VII.	Water Depth at Time of Coring (ft): <u>8.0</u> Precise Time When Water Depth Was Measured <u>0930</u>
VIII.	Start Time of Coring (24-hour): <u>0820</u> End Time of Coring (24-hour): <u>0830</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>194</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>194</u>
XVII.	Notes (see logbook for additional information):      
XVIII	Name of Person Responsible for Log: <u>PTD</u>

Relinquished By PSD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>190</u> Water Depth and precise time measured <u>8.0 - 0845</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664099</u> - Easting (ft): <u>586691</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664121.4</u> - Easting (ft): <u>586693.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>190</u>
VII.	Water Depth at Time of Coring (ft): <u>8.0</u> Precise Time When Water Depth Was Measured <u>0845</u>
VIII.	Start Time of Coring (24-hour): <u>0840</u> End Time of Coring (24-hour): <u>0945</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>190</u>
XIII.	Recovery: - Recovery (in): <u>14"</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>190</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company ARCADIS Date 11/10 Time 1200

Accepted By JH Company ARCADIS Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>189</u> Water Depth and precise time measured <u>4.5 - 0855</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <sup>P30</sup> <u>664394</u> - Easting (ft): <u>586122</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664397.8</u> - Easting (ft): <u>586121.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAH</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>189</u>
VII.	Water Depth at Time of Coring (ft): <u>0855</u> <u>11/24/17</u> Precise Time When Water Depth Was Measured <u>4.5</u>
VIII.	Start Time of Coring (24-hour): <u>0850</u> End Time of Coring (24-hour): <u>0855</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>189</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15</u></li><li>- Recovery Acceptable (<u>Y</u> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>189</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>201</u> Water Depth and precise time measured <u>8.6 - 0910</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662958</u> - Easting (ft): <u>586097</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662953.1</u> - Easting (ft): <u>586098.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SMA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>201</u>
VII.	Water Depth at Time of Coring (ft): <u>8.6</u> Precise Time When Water Depth Was Measured <u>0910</u>
VIII.	Start Time of Coring (24-hour): <u>0905</u> End Time of Coring (24-hour): <u>0910</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>201</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>201</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>195</u> Water Depth and precise time measured <u>6.8 - 0925</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663232</u> - Easting (ft): <u>586965</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663229.3</u> - Easting (ft): <u>586964.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>195</u>
VII.	Water Depth at Time of Coring (ft): <u>6.8-0925</u> Precise Time When Water Depth Was Measured <u>0925</u>
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0925</u>
IX.	<p>Penetration:</p> <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or <input type="radio"/> N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	<p>PID Reading: <u>N/A</u></p> <p><b>Breathing Zone Action Levels:</b>          For total hydrocarbon levels &gt;5 ppm, upgrade to Level C PPE.          For total hydrocarbon levels &gt;25 ppm, stop work.          For hydrogen sulfide levels &gt;5 ppm, stop work, evacuate work area, and ventilate.</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>195</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17</u></li><li>- Recovery Acceptable (<u>Y</u> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>195</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>191</u> Water Depth and precise time measured <u>8.8 - 0940</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663802</u> - Easting (ft): <u>587262</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663805.8</u> - Easting (ft): <u>587257.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAD</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>4/10</u>
VI.	Core ID: <u>191</u>
VII.	Water Depth at Time of Coring (ft): <u>8.8</u> Precise Time When Water Depth Was Measured <u>0940</u>
VIII.	Start Time of Coring (24-hour): <u>0935</u> End Time of Coring (24-hour): <u>0940</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or <input type="radio"/> N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>191</u>
XIII.	Recovery: - Recovery (in): <u>17</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>191</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By ASD Company Bradco Date 11/10 Time 1200  
 Accepted By JH Company Arcadis Date 11/10 Time 1200  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>4/10</u>
II.	Core ID: <u>191-2</u> Water Depth and precise time measured <u>8-8 0940</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663802</u> - Easting (ft): <u>587262</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663807.6</u> - Easting (ft): <u>587270.0</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>191-2</u>
VII.	Water Depth at Time of Coring (ft): <u>8.8</u> Precise Time When Water Depth Was Measured <u>0940</u>
VIII.	Start Time of Coring (24-hour): <u>0935</u> End Time of Coring (24-hour): <u>0940</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>191-2</u>
XIII.	Recovery: - Recovery (in): <u>15</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>1912</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company ARCADIS Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>187</u> Water Depth and precise time measured <u>1066 - 8.8</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663775</u> - Easting (ft): <u>588777</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663778.2</u> - Easting (ft): <u>588779.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(N)</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>187</u>
VII.	Water Depth at Time of Coring (ft): <u>8.8</u> Precise Time When Water Depth Was Measured <u>1000</u>
VIII.	Start Time of Coring (24-hour): <u>0955</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>187</u>
XIII.	Recovery: - Recovery (in): <u>18</u> - Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____  If Recovery (in) $\geq$ 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) $<$ 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>187</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>186</u> Water Depth and precise time measured <u>7.5 - 1015</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664075</u> - Easting (ft): <u>588130.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664074.1</u> - Easting (ft): <u>588133.0</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>186</u>
VII.	Water Depth at Time of Coring (ft): <u>7.5</u> Precise Time When Water Depth Was Measured <u>1615</u>
VIII.	Start Time of Coring (24-hour): <u>1010</u> End Time of Coring (24-hour): <u>1605</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u><del>48</del> 12'</u> <small>PJA 11/15/16</small></li> <li>- Actual Penetration (in): <u><del>48</del> 12</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): <u>Y</u> Yes    No    Depth of Refusal <u>12" shells</u> <small>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</small>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>196</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>10</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> Y or N: _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>186</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/10</u>
II.	Core ID: <u>135</u> Water Depth and precise time measured <u>7.5 - 1030</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664372</u> - Easting (ft): <u>587559</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>664373.3</u> - Easting (ft): <u>587561.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u><input checked="" type="checkbox"/></u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u><input checked="" type="checkbox"/></u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/10</u>
VI.	Core ID: <u>185</u>
VII.	Water Depth at Time of Coring (ft): <u>7.5</u> Precise Time When Water Depth Was Measured <u>1030</u>
VIII.	Start Time of Coring (24-hour): <u>1020</u> End Time of Coring (24-hour): <u>1030</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/10</u>
XII.	Core ID: <u>105</u>
XIII.	Recovery: - Recovery (in): <u>15</u> - Recovery Acceptable <input checked="" type="radio"/> or N): _____  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - Retained for Processing - Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/10</u>
XVI.	Core ID: <u>185</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/10 Time 1200

Accepted By JH Company Arcadis Date 11/10 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/14</u>
II.	Core ID: <u>207</u> Water Depth and precise time measured <u>3.4 - 1330</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662685</u> - Easting (ft): <u>585229</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662686.1</u> - Easting (ft): <u>585230.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SIA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/14</u>
VI.	Core ID: <u>207</u>
VII.	Water Depth at Time of Coring (ft): <u>3.4</u> Precise Time When Water Depth Was Measured <u>1330</u>
VIII.	Start Time of Coring (24-hour): <u>1325</u> End Time of Coring (24-hour): <u>1330</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>W/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/14</u>
XII.	Core ID: <u>207</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>12<sup>4</sup></u></li><li>- Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/14</u>
XVI.	Core ID: <u>207</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company Arcadis Date 11/14 Time 1600

Accepted By JH Company Arcadis Date 11/14 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/14</u>
II.	Core ID: <u>213</u> Water Depth and precise time measured <u>3.0 - 1345</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662412</u> - Easting (ft): <u>584361</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662412.8</u> - Easting (ft): <u>584365.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAD</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>1/17</u>
VI.	Core ID: <u>213</u>
VII.	Water Depth at Time of Coring (ft): <u>1345</u> Precise Time When Water Depth Was Measured: <u>3:02 PM #124/17</u>
VIII.	Start Time of Coring (24-hour): <u>1340</u> End Time of Coring (24-hour): <u>1345</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved ( <input checked="" type="radio"/> Y or <input type="radio"/> N)*: _____  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/14</u>
XII.	Core ID: <u>213</u>
XIII.	Recovery: - Recovery (in): <u>13"</u> - Recovery Acceptable (Y or N): <u>(Y)</u> <u>If Recovery (in) &gt; 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/14</u>
XVI.	Core ID: <u>213</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>BSO</u>

Relinquished By BSO Company Beaumont Date 11/14 Time 1600

Accepted By JH Company Arcadis Date 11/19 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/14</u>
II.	Core ID: <u>211</u> Water Depth and precise time measured <u>10.3 - 1400</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661575.0</u> - Easting (ft): <u>587420</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661572.2</u> - Easting (ft): <u>587417.8</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>(N)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/14</u>
VI.	Core ID: <u>211</u>
VII.	Water Depth at Time of Coring (ft): <u>10.3</u> Precise Time When Water Depth Was Measured <u>1400</u>
VIII.	Start Time of Coring (24-hour): <u>1355</u> End Time of Coring (24-hour): <u>1400</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>13</u> - Acceptable Penetration Achieved (Y or N)*: _____  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/14</u>
XII.	Core ID: <u>211</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16"</u></li><li>- Recovery Acceptable (<u>Y</u> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/14</u>
XVI.	Core ID: <u>211</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 11/14 Time 1600

Accepted By JH Company Arcadis Date 11/14 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/14</u>
II.	Core ID: <u>205</u> Water Depth and precise time measured <u>10.5 - 1415</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661873</u> - Easting (ft): <u>582266.</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661859.5</u> - Easting (ft): <u>582265.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/14</u>
VI.	Core ID: <u>205</u>
VII.	Water Depth at Time of Coring (ft): <u>9.6</u> Precise Time When Water Depth Was Measured <u>1415</u>
VIII.	Start Time of Coring (24-hour): <u>1410</u> End Time of Coring (24-hour): <u>1415</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/14</u>
XII.	Core ID: <u>205</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>9</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/14</u>
XVI.	Core ID: <u>205</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII.	Name of Person Responsible for Log: <u>BSJ</u>

Relinquished By BSJ Company Arcadis Date 11/14 Time 1600  
 Accepted By JH Company Arcadis Date 11/14 Time 1600

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/14</u>
II.	Core ID: <u>217</u> Water Depth and precise time measured <u>9.0 1135</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661323</u> - Easting (ft): <u>586652</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661324.1</u> - Easting (ft): <u>586653.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="checkbox"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SATA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="checkbox"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>217</u>
VII.	Water Depth at Time of Coring (ft): <u>9</u> Precise Time When Water Depth Was Measured <u>1135</u>
VIII.	Start Time of Coring (24-hour): <u>1130</u> End Time of Coring (24-hour): <u>1135</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>217</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>11</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>2/1/16</u>
XVI.	Core ID: <u>217</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 1/1/16 Time 1500

Accepted By JH Company Arcadis Date 1/1/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>221</u> Water Depth and precise time measured <u>8.0 - 1155</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661310</u> - Easting (ft): <u>585198</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661312.4</u> - Easting (ft): <u>585199.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u><input checked="" type="radio"/></u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u><input checked="" type="radio"/></u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>221</u>
VII.	Water Depth at Time of Coring (ft): <u>8.0</u> Precise Time When Water Depth Was Measured <u>1155</u>
VIII.	Start Time of Coring (24-hour): <u>1150</u> End Time of Coring (24-hour): <u>1155</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>221</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15"</u></li><li>- Recovery Acceptable (<u>Y</u> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>221</u>
XVII.	Notes (see logbook for additional information):      
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/16 Time 1500

Accepted By JH Company Arcadis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>225</u> Water Depth and precise time measured <u>8.6 1205</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661165</u> - Easting (ft): <u>584318</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661165.4</u> - Easting (ft): <u>584345.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>225</u>
VII.	Water Depth at Time of Coring (ft): <u>1205</u> <span style="margin-left: 20px;">5# 124/17</span> Precise Time When Water Depth Was Measured: <u>8.6</u>
VIII.	Start Time of Coring (24-hour): <u>1200</u> End Time of Coring (24-hour): <u>1205</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>PTJ 11/16/16</u> <u>18 24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>225</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable (<input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>225</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 11/16 Time 1205  
Accepted By JH Company Arcadis Date 11/16 Time 1500  
Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>225-2</u> Water Depth and precise time measured <u>8.6 - 1210</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661165</u> - Easting (ft): <u>594348</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661171.2</u> - Easting (ft): <u>584341.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>225</u>
VII.	Water Depth at Time of Coring (ft): <u>8.6</u> Precise Time When Water Depth Was Measured <u>1210</u>
VIII.	Start Time of Coring (24-hour): <u>1205</u> End Time of Coring (24-hour): <u>1210</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>21</u></li> <li>- Actual Penetration (in): <u>21</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>225</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>19</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u></p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>225-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 11/16 Time 1210  
 Accepted By JH Company Arcadis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/14</u>
II.	Core ID: <u>224</u> Water Depth and precise time measured <u>7.2 - 1220</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661305</u> - Easting (ft): <u>583761</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661311.4</u> - Easting (ft): <u>583764.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>224</u>
VII.	Water Depth at Time of Coring (ft): <u>7.2</u> Precise Time When Water Depth Was Measured <u>1220</u>
VIII.	Start Time of Coring (24-hour): <u>1220</u> End Time of Coring (24-hour): <u>1230</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> (Y) or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>274</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>10</u></li><li>- Recovery Acceptable <u>(Y)</u> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>224</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 11/16 Time 1500

Accepted By JH Company Arcadis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>224-2</u> Water Depth and precise time measured <u>7.0 - 1225</u>
III.	Sediment Collection Method (circle one):  - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661305.0</u> - Easting (ft): <u>583761</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661319.7</u> - Easting (ft): <u>583759.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="checkbox"/> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="checkbox"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>224-2</u>
VII.	Water Depth at Time of Coring (ft): <u>1225</u> Precise Time When Water Depth Was Measured <u>7.0</u> <u>5:54 12/4/17</u>
VIII.	Start Time of Coring (24-hour): <u>1220</u> End Time of Coring (24-hour): <u>1230</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24"</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>224</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>9</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>224-2</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/16 Time 1500  
 Accepted By JH Company Arcadis Date 11/16 Time 1500  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>224-3</u> Water Depth and precise time measured <u>6.8 - 1230</u>
III.	Sediment Collection Method (circle one):  - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661305</u> - Easting (ft): <u>583761</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661306.2</u> - Easting (ft): <u>583760.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>224-3</u>
VII.	Water Depth at Time of Coring (ft): <u>6.3</u> Precise Time When Water Depth Was Measured <u>1230</u>
VIII.	Start Time of Coring (24-hour): <u>1220</u> End Time of Coring (24-hour): <u>1230</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>224</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>12</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>224-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>BSO</u>

Relinquished By PSO Company Arcadis Date 11/16 Time 1500  
 Accepted By JA Company Arcadis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>220</u> Water Depth and precise time measured <u>6.5 - 1245</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661544</u> - Easting (ft): <u>584035</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661545.0</u> - Easting (ft): <u>584041.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>220</u>
VII.	Water Depth at Time of Coring (ft): <u>140</u> Precise Time When Water Depth Was Measured: <u>1245</u> <u>6-5</u> <u>5J# 124/17</u>
VIII.	Start Time of Coring (24-hour): <u>1240</u> End Time of Coring (24-hour): <u>1245</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u> Refusal? (circle one): Yes <u>(No)</u> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>220</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>220</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSP</u>

Relinquished By PSP Company Aradis Date 11/16 Time 1500

Accepted By JH Company Aradis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>215</u> Water Depth and precise time measured <u>5.8 - 1300</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661817</u> - Easting (ft): <u>585502</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661815.7</u> - Easting (ft): <u>585506.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>215</u>
VII.	Water Depth at Time of Coring (ft): <u>5.8</u> Precise Time When Water Depth Was Measured <u>1300</u>
VIII.	Start Time of Coring (24-hour): <u>1255</u> End Time of Coring (24-hour): <u>1300</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <sup>RSD 11/16/16</sup> <del>18</del> <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/14</u>
XII.	Core ID: <u>215</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17</u></li><li>- Recovery Acceptable (<u>Y</u> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>215</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company Arcadis Date 11/16 Time 1500  
 Accepted By JH Company Arcadis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>216</u> Water Depth and precise time measured <u>6.4 - 1315</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661923</u> - Easting (ft): <u>585956</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661916.8</u> - Easting (ft): <u>585959.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="checkbox"/> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SMA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="checkbox"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>216</u>
VII.	Water Depth at Time of Coring (ft): <u>6.4</u> Precise Time When Water Depth Was Measured <u>1315</u>
VIII.	Start Time of Coring (24-hour): <u>1316</u> End Time of Coring (24-hour): <u>1315</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>27</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>216</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>11</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>216</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>P10</u>

Relinquished By ASD Company Arcahis Date 11/16 Time 1315

Accepted By JH Company Arcahis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/16</u>
II.	Core ID: <u>209</u> Water Depth and precise time measured <u>5.1 1320</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662091.0</u> - Easting (ft): <u>586370.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662088.7</u> - Easting (ft): <u>586373.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/16</u>
VI.	Core ID: <u>209</u>
VII.	Water Depth at Time of Coring (ft): <u>5.1</u> Precise Time When Water Depth Was Measured <u>1320</u>
VIII.	Start Time of Coring (24-hour): <u>1315</u> End Time of Coring (24-hour): <u>1320</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/16</u>
XII.	Core ID: <u>209</u>
XIII.	Recovery: - Recovery (in): <u>13</u> - Recovery Acceptable (Y or N): <u>(Y)</u> <u>If</u> Recovery (in) $\geq$ 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) $<$ 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/16</u>
XVI.	Core ID: <u>209</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>AD</u>

Relinquished By AD Company Arcadis Date 11/16 Time 1500

Accepted By JH Company Arcadis Date 11/16 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/17</u>
II.	Core ID: <u>231</u> Water Depth and precise time measured <u>10 - 0925</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658850</u> - Easting (ft): <u>586986</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658917.8</u> - Easting (ft): <u>587174.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y or N)

\* Moved east - pylings

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>11/17</u>
VI.	Core ID: <u>231</u>
VII.	Water Depth at Time of Coring (ft): <u>10</u> Precise Time When Water Depth Was Measured <u>0925</u>
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0925</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>1/17</u>
XII.	Core ID: <u>231</u>
XIII.	Recovery: - Recovery (in): <u>14"</u> - Recovery Acceptable <input checked="" type="radio"/> Y or N: _____ <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/17</u>
XVI.	Core ID: <u>231</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/17 Time ~~1600~~ 1200

Accepted By JH Company Arcadis Date 11/17 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/17</u>
II.	Core ID: <u>226</u> Water Depth and precise time measured <u>16 - 0940</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658938</u> - Easting (ft): <u>597773</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658934.4</u> - Easting (ft): <u>597775.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/17</u>
VI.	Core ID: <u>220</u>
VII.	Water Depth at Time of Coring (ft): <u>0940</u> Precise Time When Water Depth Was Measured: <u>16</u> <span style="margin-left: 20px;">↓ # 1/24/17</span>
VIII.	Start Time of Coring (24-hour): <u>to 935</u> End Time of Coring (24-hour): <u>940</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>M/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/17</u>
XII.	Core ID: <u>226</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>11</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/17</u>
XVI.	Core ID: <u>226</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arceadis Date 11/17 Time ~~1600~~ 1200

Accepted By JH Company Arceadis Date 11/17 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/17</u>
II.	Core ID: <u>233</u> Water Depth and precise time measured <u>24.7 - 0945</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658322</u> - Easting (ft): <u>588033</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658320.9</u> - Easting (ft): <u>588035.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/17</u>
VI.	Core ID: <u>233</u>
VII.	Water Depth at Time of Coring (ft): <u>24.7</u> Precise Time When Water Depth Was Measured <u>0945</u>
VIII.	Start Time of Coring (24-hour): <u>0940</u> End Time of Coring (24-hour): <u>0945</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/17</u>
XII.	Core ID: <u>233</u>
XIII.	Recovery: - Recovery (in): <u>18</u> - Recovery Acceptable ( <input checked="" type="radio"/> Y or N): _____  <u>If</u> Recovery (in) $\geq$ 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) $<$ 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/17</u>
XVI.	Core ID: <u>233</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arade Date 11/17 Time 1000 1200  
Accepted By JH Company Arade's Date 11/17 Time 1200  
Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/17</u>
II.	Core ID: <u>227</u> Water Depth and precise time measured <u>12.0 - 1000</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658116</u> - Easting (ft): <u>589523</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658120.4</u> - Easting (ft): <u>589525.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/17</u>
VI.	Core ID: <u>227</u>
VII.	Water Depth at Time of Coring (ft): <u>12</u> Precise Time When Water Depth Was Measured <u>1000</u>
VIII.	Start Time of Coring (24-hour): <u>0955</u> End Time of Coring (24-hour): <u>1000</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/17</u>
XII.	Core ID: <u>227</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17"</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/17</u>
XVI.	Core ID: <u>227</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By Arcadis Company PSD Date 11/17 Time ~~1600~~ 1200  
 Accepted By JH Company Arcadis Date 11/17 Time 1200

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <u>249</u> Water Depth and precise time measured <del>#2 0805</del> <u>7.3 1030</u> <small>PJD 11/30/16</small>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658777</u> - Easting (ft): <u>584637</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <del>658864.0</del> <sup>PJD 11/30/16</sup> <del>659100.7</del> <u>659071.1</u> - Easting (ft): <del>584460.4</del> <del>584405.7</del> <u>584389.4</u> Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or N)

\* MOVED FROM UPPER BAY. EPA OK  
 \* SPOKE w/ land owner got OK to sample

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>249</u>
VII.	Water Depth at Time of Coring (ft): <u>11.2</u> Precise Time When Water Depth Was Measured <sup>11/30/16</sup> <del>0805</del> <u>1030</u>
VIII.	Start Time of Coring (24-hour): <del>0805</del> <u>1030</u> End Time of Coring (24-hour): <sup>11/30/16</sup> <del>0840</del> <u>1035</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <u>No</u> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>249</u>
XIII.	Recovery: - Recovery (in): <u>10</u> - Recovery Acceptable (Y or N): <u>(Y)</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>249</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company Acadics Date 11/30 Time 1500

Accepted By ZM Company Acadics Date 11/30 Time 1615

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <u>238</u> Water Depth and precise time measured <u>1045-7.2</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659536</u> - Easting (ft): <u>584313</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659536.7</u> - Easting (ft): <u>584316.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="checkbox"/> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="checkbox"/> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>238</u>
VII.	Water Depth at Time of Coring (ft): <u>1045</u> Precise Time When Water Depth Was Measured <u>7.2</u> <u>↓ # 1/24/17</u>
VIII.	Start Time of Coring (24-hour): <u>1045</u> End Time of Coring (24-hour): <u>1050</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>N</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>238</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>9</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>238</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/30 Time 1500

Accepted By ZML Company Arcadis Date 11/30 Time 1615

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <u>238-2</u> Water Depth and precise time measured <u>7.2</u> <u>1045</u> <u>1050</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659 536</u> - Easting (ft): <u>584 313</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659 539.3</u> - Easting (ft): <u>584 323.4</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>238-2</u>
VII.	Water Depth at Time of Coring (ft): <u>7.2</u> Precise Time When Water Depth Was Measured <u>1050</u>
VIII.	Start Time of Coring (24-hour): <u>1050</u> End Time of Coring (24-hour): <u>1052</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>13</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>230-2</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>238-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 11/30 Time 1500

Accepted By ZML Company Arcadis Date 11/30 Time 1615

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <u>238-3</u> Water Depth and precise time measured <u>7.0 - 1055</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659534</u> - Easting (ft): <u>584313</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659558.1</u> - Easting (ft): <u>584314.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SIAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>238-3</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>1055</u>
VIII.	Start Time of Coring (24-hour): <u>1055</u> End Time of Coring (24-hour): <u>1056</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> (Y) or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>238-3</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>11</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>238-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 11/30 Time 1500  
 Accepted By ZML Company Arcadis Date 11/30 Time 16:15  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <u>237</u> Water Depth and precise time measured <u>9.8 - 1100</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>660004.0</u> - Easting (ft): <u>583753</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>660005.1</u> - Easting (ft): <u>583755.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>N/A SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>237</u>
VII.	Water Depth at Time of Coring (ft): <u>9.8</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1100</u> End Time of Coring (24-hour): <u>1105</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>237</u>
XIII.	Recovery: - Recovery (in): <u>16"</u> - Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>237</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PO</u>

Relinquished By PJD Company Arcadis Date 11/30 Time 1500  
 Accepted By ZML Company Arcadis Date 11/30 Time 10:15

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <u>247</u> Water Depth and precise time measured <u>5.0 - 1125</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659431</u> - Easting (ft): <u>583122</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659429.7</u> - Easting (ft): <u>583125.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>5AA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>247</u>
VII.	Water Depth at Time of Coring (ft): <u>5.0</u> Precise Time When Water Depth Was Measured <u>1125</u>
VIII.	Start Time of Coring (24-hour): <u>1125</u> End Time of Coring (24-hour): <u>1130</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>16</u> - Actual Penetration (in): <u>16</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>247</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>12</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>247</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 11/30 Time 1500

Accepted By ZML Company Arcadis Date 11/30 Time 1615

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water depth recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <u>236</u> Water Depth and precise time measured <u>7.0 -1135</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>660021</u> - Easting (ft): <u>583165</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>660024.24</u> - Easting (ft): <u>583161.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>236</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>1135</u>
VIII.	Start Time of Coring (24-hour): <u>1135</u> End Time of Coring (24-hour): <u>1140</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>236</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15"</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <u>for</u> Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>236</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 11/30 Time 1500  
 Accepted By ZML Company Arcadis Date 11/30 Time 1615  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>11/30</u>
II.	Core ID: <del>246</del> <u>248</u> <small>PJD 11/30/16</small> Water Depth and precise time measured: <del>11.0</del> <u>11.50 - 11.4</u> <small>PJD 11/30/16</small>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659060</u> - Easting (ft): <u>584067</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659184.8</u> - Easting (ft): <u>584068.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or (N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or (N) <small>PJD 11/30/16</small>

\*MOVED from under barge.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>11/30</u>
VI.	Core ID: <u>248</u>
VII.	Water Depth at Time of Coring (ft): <u>11.4</u> Precise Time When Water Depth Was Measured <u>1150</u>
VIII.	Start Time of Coring (24-hour): <u>1150</u> End Time of Coring (24-hour): <u>1155</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>11/30</u>
XII.	Core ID: <u>248</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>10</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> (Y or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>11/30</u>
XVI.	Core ID: <u>240</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company Arcahis Date 11/30 Time 1500  
 Accepted By ZML Company Arcahis Date 11/30 Time 1615

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/01</u>
II.	Core ID: <u>289</u> Water Depth and precise time measured <u>42 - 0700</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686985</u> - Easting (ft): <u>601907</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>686986.7</u> - Easting (ft): <u>601904.6</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/1</u>
VI.	Core ID: <u>289</u>
VII.	Water Depth at Time of Coring (ft): <u>42</u> Precise Time When Water Depth Was Measured <u>0700</u>
VIII.	Start Time of Coring (24-hour): <u>0700</u> End Time of Coring (24-hour): <u>0715</u>
IX.	<p>Penetration:</p> <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/1</u>
XII.	Core ID: <u>209</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>18</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/01</u>
XVI.	Core ID: <u>299</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/1 Time ~~1200~~ 1045

Accepted By JH Company Arcadis Date 12/1 Time 1045

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/1</u>
II.	Core ID: <u>290</u> Water Depth and precise time measured <u>0730 - 38</u>
III.	Sediment Collection Method (circle one):  - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>685907</u> - Easting (ft): <u>601142</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>685909.6</u> - Easting (ft): <u>601146.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/1</u>
VI.	Core ID: <u>290</u>
VII.	Water Depth at Time of Coring (ft): <u>38</u> Precise Time When Water Depth Was Measured <u>0730</u>
VIII.	Start Time of Coring (24-hour): <u>0730</u> End Time of Coring (24-hour): <u>0745</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18"</u></li> <li>- Actual Penetration (in): <u>18"</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/1</u>
XII.	Core ID: <u>290</u>
XIII.	Recovery: - Recovery (in): <u>19"</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/1</u>
XVI.	Core ID: <u>290</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Nacadis Date 12/1 Time 1200 1045  
 Accepted By JH Company Arcadis Date 12/1 Time 1045

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>239</u> Water Depth and precise time measured <u>9.6 - 085<sup>00</sup></u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659238</u> - Easting (ft): <u>584884.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659615.5</u> - Easting (ft): <u>585227.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

*is moved to opposite side of channel as per Terra? EPA*

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>239</u>
VII.	Water Depth at Time of Coring (ft): <u>9.6</u> Precise Time When Water Depth Was Measured <u>0850</u>
VIII.	Start Time of Coring (24-hour): <u>0450</u> End Time of Coring (24-hour): <u>1255</u>
IX.	Penetration:
	<ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u>
<p><b>Breathing Zone Action Levels:</b>  For total hydrocarbon levels &gt;5 ppm, upgrade to Level C PPE.  For total hydrocarbon levels &gt;25 ppm, stop work.  For hydrogen sulfide levels &gt;5 ppm, stop work, evacuate work area, and ventilate.</p>	

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>239</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <u>for</u> Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>239</u>
XVII.	Notes (see logbook for additional information): <hr/> <hr/> <hr/> <hr/> <hr/>
XVIII.	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 12/5 Time ~~12:30~~ 1500  
Accepted By ZML Company Arcadis Date 12/5 Time 1500

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>17.2 234</u> <small>PJO B. 15/11</small> Water Depth and precise time measured <u>17.2 - 0900</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658025</u> - Easting (ft): <u>538604</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658053.0</u> - Easting (ft): <u>580323</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u> Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): _____ - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

Ward out from under barges as per EPA, Tierna

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>234</u>
VII.	Water Depth at Time of Coring (ft): <u>17.2</u> Precise Time When Water Depth Was Measured <u>0900</u>
VIII.	Start Time of Coring (24-hour): <u>0900</u> End Time of Coring (24-hour): <u>0930</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>NH</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>234</u>
XIII.	Recovery: - Recovery (in): <u>94</u> - Recovery Acceptable (Y or N): <u>Y</u> <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - Retained <u>for</u> Processing - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>234</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 12/5 Time 177<sup>PSO 12/5/12</sup> 1530

Accepted By ZL Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>234-2</u> Water Depth and precise time measured <u>17.8 - 0930</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658025</u> - Easting (ft): <u>588604</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658041.2</u> - Easting (ft): <u>588324.0</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)

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**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>234</u>
VII.	Water Depth at Time of Coring (ft): <u>0938</u> Precise Time When Water Depth Was Measured: <u>17.8</u> <i>25# 1/24/17</i>
VIII.	Start Time of Coring (24-hour): <u>0900</u> End Time of Coring (24-hour): <u>0930</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>36</u></li> <li>- Target Penetration (in): <u>25</u></li> <li>- Actual Penetration (in): <u>25</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>234</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>25</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>234</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/5 Time 1530

Accepted By ZML Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>245</u> Water Depth and precise time measured <u>10.5 - 1030</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>660932</u> - Easting (ft): <u>580582</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>660934.2</u> - Easting (ft): <u>580580.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>245</u>
VII.	Water Depth at Time of Coring (ft): <u>10.5</u> Precise Time When Water Depth Was Measured <u>1030</u>
VIII.	Start Time of Coring (24-hour): <u>1030</u> End Time of Coring (24-hour): <u>1035</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="checkbox"/> or N)*: <u></u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> <b>No</b> Depth of Refusal <u></u> *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>245</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <u>6</u> for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>245</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 12/5 Time 1530

Accepted By ZML Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>235</u> Water Depth and precise time measured <u>10.5 - 1050</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>66111.0</u> - Easting (ft): <u>581493</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>66114.8</u> - Easting (ft): <u>581495.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>235</u>
VII.	Water Depth at Time of Coring (ft): <del>10.90</del> <sup>P. 10.12.5112</sup> <u>10.5</u> Precise Time When Water Depth Was Measured <u>10:50</u>
VIII.	Start Time of Coring (24-hour): <u>10:50</u> End Time of Coring (24-hour): <u>10:55</u>
IX.	Penetration: - Length of Core liner (in): <u>36</u> - Target Penetration (in): <u>24</u> - Actual Penetration (in): <u>24</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>235</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>22</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>228-1</u> Water Depth and precise time measured <u>7.8 - 1120</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661528</u> - Easting (ft): <u>581776</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661526.3</u> - Easting (ft): <u>581778.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>1215</u>
VI.	Core ID: <u>223</u>
VII.	Water Depth at Time of Coring (ft): <u>7.8</u> Precise Time When Water Depth Was Measured <u>1120</u>
VIII.	Start Time of Coring (24-hour): <u>1120</u> End Time of Coring (24-hour): <u>1130</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>228</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <input checked="" type="radio"/> for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>228</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 12/5 Time 1530  
 Accepted By ZML Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>228-2</u> Water Depth and precise time measured <u>to 7.5 - 1125</u> <u>8:00:16</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661528</u> - Easting (ft): <u>581776</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661527.1</u> - Easting (ft): <u>581789.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>208</u>
VII.	Water Depth at Time of Coring (ft): <u>7.5 - 1/25</u> #12417 Precise Time When Water Depth Was Measured <u>7:52</u>
VIII.	Start Time of Coring (24-hour): <u>1120</u> End Time of Coring (24-hour): <u>1130</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>228-2</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u></p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>228-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSJ</u>

Relinquished By PSJ Company Aradis Date 12/5 Time 1530

Accepted By ZML Company Aradis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>228-3</u> Water Depth and precise time measured <u>7.8 - 1130</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661528</u> - Easting (ft): <u>581776</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661527.4</u> - Easting (ft): <u>581799.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>228-3</u>
VII.	Water Depth at Time of Coring (ft): <u>7.8</u> Precise Time When Water Depth Was Measured <u>1130</u>
VIII.	Start Time of Coring (24-hour): <u>1120</u> End Time of Coring (24-hour): <u>1130</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> (Y) or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>MA</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>228-3</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16</u></li><li>- Recovery Acceptable (<input checked="" type="radio"/> Y or <input type="radio"/> N): _____</li></ul> <p><u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u></p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <input checked="" type="radio"/> for Processing</li><li>- Rejected <input type="radio"/></li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>228-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/5 Time 1530

Accepted By ZML Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>222</u> Water Depth and precise time measured <u>10.0 - 1145</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661834</u> - Easting (ft): <u>582698</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661834.9</u> - Easting (ft): <u>582699.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>222</u>
VII.	Water Depth at Time of Coring (ft): <u>10</u> Precise Time When Water Depth Was Measured <u>1145</u>
VIII.	Start Time of Coring (24-hour): <u>1140</u> End Time of Coring (24-hour): <u>1145</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved ( <input checked="" type="radio"/> or N)*: _____  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>222</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <input checked="" type="radio"/> for Processing</li><li>- Rejected <input type="radio"/></li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>222</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>RJO</u>

Relinquished By RJO Company Arcadis Date 12/5 Time 1530

Accepted By ZML Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>212</u> Water Depth and precise time measured <u>10.0 - 1200</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662533</u> - Easting (ft): <u>583573</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662534.1</u> - Easting (ft): <u>583574.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>212</u>
VII.	Water Depth at Time of Coring (ft): <u>10</u> Precise Time When Water Depth Was Measured <u>1200</u>
VIII.	Start Time of Coring (24-hour): <u>1200</u> End Time of Coring (24-hour): <u>1205</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>10</u> - Acceptable Penetration Achieved (Y or N)*: _____  Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>212</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>16</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> Y or N: _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <input checked="" type="radio"/> for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>212</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/5 Time 1530  
Accepted By ZML Company Arcadis Date 12/5 Time 1530  
  
Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>218</u> Water Depth and precise time measured <u>7.5 - 1215</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661953</u> - Easting (ft): <u>583522</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661955.4</u> - Easting (ft): <u>583525.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>JAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>218</u>
VII.	Water Depth at Time of Coring (ft): <u>7.5</u> Precise Time When Water Depth Was Measured <u>1215</u>
VIII.	Start Time of Coring (24-hour): <u>1210</u> End Time of Coring (24-hour): <u>1215</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>218</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>10</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <u>for</u> Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>218</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/5 Time 1530

Accepted By ZML Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>223</u> Water Depth and precise time measured <u>7.5. 1230</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661568</u> - Easting (ft): <u>583196</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661569.9</u> - Easting (ft): <u>583193.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: _____	12/5
VI.	Core ID: _____	223
VII.	Water Depth at Time of Coring (ft): _____	7.5
	Precise Time When Water Depth Was Measured _____	1230
VIII.	Start Time of Coring (24-hour): _____	1220
	End Time of Coring (24-hour): _____	1230
IX.	Penetration:	
	- Length of Core liner (in): _____	36"
	- Target Penetration (in): _____	24
	- Actual Penetration (in): _____	24
	- Acceptable Penetration Achieved (Y or N)*: _____	Y
	Refusal? (circle one): Yes <input checked="" type="radio"/> No    Depth of Refusal _____	
	*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)	
X.	PID Reading: _____	N/A
	<b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.	

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>223</u>
XIII.	Recovery: - Recovery (in): <u>23</u> - Recovery Acceptable ( <u>Y</u> or N): _____  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - Retained for Processing - Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>223</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/5 Time 1630

Accepted By ZML Company Arcadis Date 12/5 Time 1630

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>1215</u>
II.	Core ID: <u>229</u> Water Depth and precise time measured <u>9.0 - 1245</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661149.0</u> - Easting (ft): <u>582911.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661147.1</u> - Easting (ft): <u>582910.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SKA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>229</u>
VII.	Water Depth at Time of Coring (ft): <u>9.0</u> Precise Time When Water Depth Was Measured <u>1245</u>
VIII.	Start Time of Coring (24-hour): <u>1240</u> End Time of Coring (24-hour): <u>1245</u>
IX.	Penetration: <u>PID 12/5/16</u> <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>36"</u></li> <li>- Target Penetration (in): <u>24</u></li> <li>- Actual Penetration (in): <u>24</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>229</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>23</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <u>for</u> Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>229</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Acadis Date 12/5 Time 1930

Accepted By ZML Company Acadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>219</u> Water Depth and precise time measured <u>8.4 - 1300</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661842.0</u> - Easting (ft): <u>534064.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661841.9</u> - Easting (ft): <u>534061.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>5AA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>219</u>
VII.	Water Depth at Time of Coring (ft): <u>8.4</u> Precise Time When Water Depth Was Measured <u>1300</u>
VIII.	Start Time of Coring (24-hour): <u>1255</u> End Time of Coring (24-hour): <u>1300</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved <input checked="" type="radio"/> or N)*: _____  Refusal? (circle one): <input checked="" type="radio"/> Yes    No    Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/5</u>
XII.	Core ID: <u>219</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>19"</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>219</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/5 Time 1930  
 Accepted By ZNH Company Arcadis Date 12/5 Time 1530  
 Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>214</u> Water Depth and precise time measured <u>8.8 - 1315</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662115</u> - Easting (ft): <u>584932</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662110.1</u> - Easting (ft): <u>584932.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>214</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/5 Time 1530

Accepted By ZHL Company Arcadis Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/5</u>
II.	Core ID: <u>208</u> Water Depth and precise time measured <u>8.9 1330</u>
III.	Sediment Collection Method (circle one): - <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662388</u> - Easting (ft): <u>585800</u> Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662390.1</u> - Easting (ft): <u>585801.7</u> Confirm initial core location coordinates are within 5 feet of target coordinates <u><input checked="" type="radio"/></u> (Y or N) Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____ Confirm final core location coordinates are within 50 feet of target coordinates <u><input checked="" type="radio"/></u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/5</u>
VI.	Core ID: <u>208</u>
VII.	Water Depth at Time of Coring (ft): <u>8.9</u> Precise Time When Water Depth Was Measured <u>1330</u>
VIII.	Start Time of Coring (24-hour): <u>1325</u> End Time of Coring (24-hour): <u>1330</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>24</u> <small>ASD 12/5/16</small></li> <li>- Actual Penetration (in): <u>20</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> (Y) or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/15</u>
XII.	Core ID: <u>208</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>19</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/5</u>
XVI.	Core ID: <u>208</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Acadics Date 12/5 Time 1530

Accepted By ZML Company Acadics Date 12/5 Time 1530

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>367</u> Water Depth and precise time measured <u>7.8 - 0945</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663856</u> - Easting (ft): <u>591679</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663858.3</u> - Easting (ft): <u>591680.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>54A</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>367</u>
VII.	Water Depth at Time of Coring (ft): <u>7.9</u> Precise Time When Water Depth Was Measured <u>0845</u>
VIII.	Start Time of Coring (24-hour): <u>0840</u> End Time of Coring (24-hour): <u>0845</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or <input type="radio"/> N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>367</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>13</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>367</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>369</u> Water Depth and precise time measured <u>7.6 - 0915</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659620</u> - Easting (ft): <u>590903</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659629.5</u> - Easting (ft): <u>590892.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

*3rd attempt*

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>369</u>
VII.	Water Depth at Time of Coring (ft): <sup>PST 12/16</sup> <u>7.6 - 0915</u> Precise Time When Water Depth Was Measured _____
VIII.	Start Time of Coring (24-hour): <u>0900</u> End Time of Coring (24-hour): <u>0915</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>12</u> <sup>PST 12/16</sup> - Actual Penetration (in): <u>12</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u> Refusal? (circle one): <input checked="" type="radio"/> Yes <input type="radio"/> No    Depth of Refusal <u>12</u> *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>369</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>10</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>369</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By ASD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>244</u> Water Depth and precise time measured <u>4.8 0930</u>
III.	Sediment Collection Method (circle one): - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657496</u> - Easting (ft): <u>588302</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657742.9</u> - Easting (ft): <u>589338.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)

\* Moved out from piling Area  
EPA/Herria approved

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>244</u>
VII.	Water Depth at Time of Coring (ft): <sup>P110/111</sup> <del>0920</del> <u>4.8</u> Precise Time When Water Depth Was Measured <u>0930</u>
VIII.	Start Time of Coring (24-hour): <u>0920</u> End Time of Coring (24-hour): <u>0930</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>12</u> - Actual Penetration (in): <u>12</u> - Acceptable Penetration Achieved (Y or N)*: _____  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>244</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>12</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>244</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>243</u> Water Depth and precise time measured <u>7.2 - 0950</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> - Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657759</u> - Easting (ft): <u>587736</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657744.9</u> - Easting (ft): <u>587742.7</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

\* MAVED OFF BACKHE  
EPA/Tierra approve

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>243</u>
VII.	Water Depth at Time of Coring (ft): <u>7.2</u> Precise Time When Water Depth Was Measured <u>0950</u>
VIII.	Start Time of Coring (24-hour): <u>0945</u> End Time of Coring (24-hour): <u>0950</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> (Y) or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>243</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>12</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <input checked="" type="radio"/> Retained for Processing</li><li>- <input type="radio"/> Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>243</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>243-252</u> Water Depth and precise time measured <u>7.0 - 1005</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657644</u> - Easting (ft): <u>586336</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657526.8</u> - Easting (ft): <u>586990.5</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y or N)

\* MAND OFF BRIDGE.  
EPA/TERRA OK

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>252</u>
VII.	Water Depth at Time of Coring (ft): <sup>PID 12/1/14</sup> <del>1000</del> <u>7.0</u> Precise Time When Water Depth Was Measured <u>1005</u>
VIII.	Start Time of Coring (24-hour): <u>1000</u> End Time of Coring (24-hour): <u>1005</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> (Y) or N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> <input checked="" type="radio"/> No Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>252</u>
XIII.	Recovery: - Recovery (in): <u>10</u> - Recovery Acceptable (Y or N): <u>Y</u>  <u>If</u> Recovery (in) $\geq$ 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) $<$ 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)
XIV.	Final Disposition of Core (circle one): - <u>Retained for Processing</u> - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>252</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>251-1</u> Water Depth and precise time measured <u>8.0-1010</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657837</u> - Easting (ft): <u>586325</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657795.0</u> - Easting (ft): <u>586490.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)

Moved off barge -  
GPA/Tierra OK

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>251</u>
VII.	Water Depth at Time of Coring (ft): <u>80</u> Precise Time When Water Depth Was Measured <u>1010</u>
VIII.	Start Time of Coring (24-hour): <u>1010</u> End Time of Coring (24-hour): <u>1000</u>
IX.	<p>Penetration:</p> <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>257</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>18</u></li><li>- Recovery Acceptable (<u>Y</u> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <u>for</u> Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>257</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>BJD</u>

Relinquished By BJD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>257-2</u> Water Depth and precise time measured <u>7.5 - 1015</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657837</u> - Easting (ft): <u>586325</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657795.1</u> - Easting (ft): <u>586504.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>5A4</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/10</u>
VI.	Core ID: <u>257-2</u>
VII.	Water Depth at Time of Coring (ft): <u>7.5</u> Precise Time When Water Depth Was Measured <u>1015</u>
VIII.	Start Time of Coring (24-hour): <u>1010</u> End Time of Coring (24-hour): <u>1020</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or <input type="radio"/> N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/0</u>
XII.	Core ID: <u>257-2</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>12</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>257-2</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>251-3</u> Water Depth and precise time measured <u>7.5</u> <u>1620</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657937</u> - Easting (ft): <u>586325</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>657794.8</u> - Easting (ft): <u>586480.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>257-3</u>
VII.	Water Depth at Time of Coring (ft): <u>7.5</u> Precise Time When Water Depth Was Measured <u>1020</u>
VIII.	Start Time of Coring (24-hour): <u>1010</u> End Time of Coring (24-hour): <u>1020</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>257-3</u>
XIII.	Recovery: - Recovery (in): <u>9</u> - Recovery Acceptable <input checked="" type="radio"/> or N): _____  <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - Retained <input checked="" type="radio"/> for Processing - Rejected <input type="radio"/>  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>257-3</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/6 Time 1445

Accepted By [Signature] Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>250</u> Water Depth and precise time measured <u>7.0 - 1100</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658468</u> - Easting (ft): <u>585219</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>658036.4</u> - Easting (ft): <u>585926.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates ____ (Y or <input checked="" type="radio"/> N)

Moved other side of channel - burges  
EPA/Tierra OK

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>250</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>1100</u>
VIII.	Start Time of Coring (24-hour): <u>1100</u> End Time of Coring (24-hour): <u>1105</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (<input checked="" type="radio"/> Y or <input type="radio"/> N)*: _____</li> </ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>250</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17"</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> or N): _____</li></ul> <p>If Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>250</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>246</u> Water Depth and precise time measured <u>6.5 - 1115</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659381</u> - Easting (ft): <u>581683</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659380.8</u> - Easting (ft): <u>581677.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>246</u>
VII.	Water Depth at Time of Coring (ft): <u>6.5</u> Precise Time When Water Depth Was Measured <u>1115</u>
VIII.	Start Time of Coring (24-hour): <u>1115</u> End Time of Coring (24-hour): <u>1120</u>
IX.	Penetration:
	<ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u>

**Breathing Zone Action Levels:**  
 For total hydrocarbon levels >5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels >25 ppm, stop work.  
 For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>246</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>17</u></li><li>- Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <input checked="" type="radio"/> for Processing</li><li>- Rejected <input type="radio"/></li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>246</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>246</u> Water Depth and precise time measured <u>6.5 - 1120</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659881</u> - Easting (ft): <u>581693</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>659885.7</u> - Easting (ft): <u>581667.9</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>246-2</u>
VII.	Water Depth at Time of Coring (ft): <u>6.5</u> Precise Time When Water Depth Was Measured <u>1120</u>
VIII.	Start Time of Coring (24-hour): <u>1115</u> End Time of Coring (24-hour): <u>1120</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved <input checked="" type="radio"/> (Y) or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/10</u>
XII.	Core ID: <u>246</u>
XIII.	Recovery: - Recovery (in): <u>15</u> - Recovery Acceptable (Y or N): <u>(Y)</u>  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - Retained for Processing - Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>246</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>210</u> Water Depth and precise time measured <u>80 - 1245</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661793</u> - Easting (ft): <u>586941</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>661797.4</u> - Easting (ft): <u>586939.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>210</u>
VII.	Water Depth at Time of Coring (ft): <u>8.0</u> Precise Time When Water Depth Was Measured <u>1245</u>
VIII.	Start Time of Coring (24-hour): <u>1240</u> End Time of Coring (24-hour): <u>1245</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>13</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> Refusal? (circle one): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>210</u>
XIII.	Recovery: - Recovery (in): <u>10</u> - Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>210</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASO</u>

Relinquished By ASO Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Time water level recorded was added on 1/24/17 during QC review of the Phase III Field Report (see page 2).

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>203</u> Water Depth and precise time measured <u>10.5-1200</u>
III.	Sediment Collection Method (circle one): <input checked="" type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662364</u> - Easting (ft): <u>587238</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662368.5</u> - Easting (ft): <u>587240.3</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: _____ <u>12/6</u>
VI.	Core ID: _____ <u>203</u>
VII.	Water Depth at Time of Coring (ft): _____ <u>10.5</u> Precise Time When Water Depth Was Measured _____ <u>1200</u>
VIII.	Start Time of Coring (24-hour): _____ <u>1200</u> End Time of Coring (24-hour): _____ <u>1205</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): _____ <u>24</u></li> <li>- Target Penetration (in): _____ <u>18</u></li> <li>- Actual Penetration (in): _____ <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: _____</li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: _____ <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>203</u>
XIII.	Recovery: - Recovery (in): <u>16</u> - Recovery Acceptable <input checked="" type="radio"/> Y or N): _____  <u>If</u> Recovery (in) $\geq$ 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) $<$ 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>203</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>JD</u>

Relinquished By MD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>202</u> Water Depth and precise time measured <u>9.2 - 1210</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662661.0</u> - Easting (ft): <u>586667.0</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662664.4</u> - Easting (ft): <u>586669.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <input checked="" type="radio"/> (Y) or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>54A</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <input checked="" type="radio"/> (Y) or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>202</u>
XIII.	Recovery: - Recovery (in): <u>15</u> - Recovery Acceptable (Y or N): <input checked="" type="radio"/> Y <input type="radio"/> N  <u>If Recovery (in) <math>\geq</math> 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) <math>&lt;</math> 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - <input checked="" type="radio"/> Retained for Processing - <input type="radio"/> Rejected  If rejected, reason for rejection:  _____  _____  _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>202</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJD</u>

Relinquished By PJD Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>196</u> Water Depth and precise time measured <u>13 - 1230</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662934</u> - Easting (ft): <u>537535</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662936.4</u> - Easting (ft): <u>587537.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y or N)</u>  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SNA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y or N)</u>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>196</u>
VII.	Water Depth at Time of Coring (ft): <u>13</u> Precise Time When Water Depth Was Measured <u>1730</u>
VIII.	Start Time of Coring (24-hour): <u>1225</u> End Time of Coring (24-hour): <u>1230</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>14</u></li> <li>- Actual Penetration (in): <u>13</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>196</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>15</u></li><li>- Recovery Acceptable (Y or N): <u>(Y)</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>196</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/6 Time 1445

Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/6</u>
II.	Core ID: <u>197</u> Water Depth and precise time measured <u>11.5 - 1250</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662637</u> - Easting (ft): <u>588106</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>662639.2</u> - Easting (ft): <u>588103.1</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>54A</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/6</u>
VI.	Core ID: <u>197</u>
VII.	Water Depth at Time of Coring (ft): <u>11.5</u> Precise Time When Water Depth Was Measured <u>1250</u>
VIII.	Start Time of Coring (24-hour): <u>1245</u> End Time of Coring (24-hour): <u>1250</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/6</u>
XII.	Core ID: <u>197</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>14</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/6</u>
XVI.	Core ID: <u>197</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____ _____
XVIII.	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Arcadis Date 12/6 Time 1445  
 Accepted By JH Company Arcadis Date 12/6 Time 1445

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/7</u>
II.	Core ID: <u>204</u> Water Depth and precise time measured <u>10.5 - 0730</u>
III.	Sediment Collection Method (circle one):  - <input type="checkbox"/> Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>462066.0</u> - Easting (ft): <u>587808</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>462067.2</u> - Easting (ft): <u>587805.4</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>(Y)</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>(Y)</u> or N)

Times adjusted to 24-hr notation on 1/24/17 during QC review of the Phase III Field Report.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/7</u>
VI.	Core ID: <u>204</u>
VII.	Water Depth at Time of Coring (ft): <u>10.5</u> Precise Time When Water Depth Was Measured <u>0730</u>
VIII.	Start Time of Coring (24-hour): <u>0730</u> End Time of Coring (24-hour): <u>0735</u>
IX.	Penetration: <ul style="list-style-type: none"><li>- Length of Core liner (in): <u>24</u></li><li>- Target Penetration (in): <u>18</u></li><li>- Actual Penetration (in): <u>10</u></li><li>- Acceptable Penetration Achieved (Y or N)*: _____</li></ul> Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____ <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/7</u>
XII.	Core ID: <u>204</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>9</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained for Processing</li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/7</u>
XVI.	Core ID: <u>204</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/7 Time 1105

Accepted By ZAC Company Mudis Date 12/7 Time 1110

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/7</u>
II.	Core ID: <u>192</u> Water Depth and precise time measured <u>7.0 - 0815</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663207</u> - Easting (ft): <u>588403</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663200.5</u> - Easting (ft): <u>588402.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/7</u>
VI.	Core ID: <u>192</u>
VII.	Water Depth at Time of Coring (ft): <u>7.0</u> Precise Time When Water Depth Was Measured <u>0815</u>
VIII.	Start Time of Coring (24-hour): <u>0810</u> End Time of Coring (24-hour): <u>0815</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>17</u> - Actual Penetration (in): <u>12</u> - Acceptable Penetration Achieved (Y or N)*: <u>(Y)</u>  Refusal? (circle one): <u>(Yes)</u> No Depth of Refusal <u>12-shells</u>  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/7</u>
XII.	Core ID: <u>192</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>9</u></li><li>- Recovery Acceptable (Y or N): <u>Y</u></li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- <u>Retained for Processing</u></li><li>- Rejected</li></ul> <p>If rejected, reason for rejection:</p> <hr/> <hr/> <hr/>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/7</u>
XVI.	Core ID: <u>192</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSD</u>

Relinquished By PSD Company Acandis Date 12/7 Time 1200

Accepted By ZML Company Acandis Date 12/7 Time 1205

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_



**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 4)

V.	Date: <u>12/7</u>
VI.	Core ID: <u>193</u>
VII.	Water Depth at Time of Coring (ft): <u>7</u> Precise Time When Water Depth Was Measured <u>0830</u>
VIII.	Start Time of Coring (24-hour): <u>0830</u> End Time of Coring (24-hour): <u>0835</u>
IX.	Penetration: - Length of Core liner (in): <sup>P10 12/7/16</sup> <u>72.24</u> - Target Penetration (in): <u>12</u> - Actual Penetration (in): <u>12</u> - Acceptable Penetration Achieved (Y or N)*: <input checked="" type="radio"/> Y <input type="radio"/> N Refusal? (circle one) <input checked="" type="radio"/> Yes <input type="radio"/> No Depth of Refusal <u>12-stells</u> *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/7</u>
XII.	Core ID: <u>193</u>
XIII.	Recovery: <ul style="list-style-type: none"><li>- Recovery (in): <u>9</u></li><li>- Recovery Acceptable (<input checked="" type="radio"/> or N): _____</li></ul> <p><u>If</u> Recovery (in) <math>\geq</math> 9 inches, <u>then</u> recovery is acceptable. <u>If</u> Recovery (in) <math>&lt;</math> 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)</p>
XIV.	Final Disposition of Core (circle one): <ul style="list-style-type: none"><li>- Retained <input checked="" type="radio"/> for Processing</li><li>- Rejected <input type="radio"/></li></ul> <p>If rejected, reason for rejection:</p> <p>_____</p> <p>_____</p> <p>_____</p>

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 4 of 4)

XV.	Date: <u>12/7</u>
XVI.	Core ID: <u>193</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>ASD</u>

Relinquished By ASD Company Arcadis Date 12/7 Time 1105

Accepted By ZMC Company Arcadis Date 12/7 Time 1110

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/7</u>
II.	Core ID: <u>188</u> Water Depth and precise time measured <u>7.0</u> <u>0945</u>
III.	Sediment Collection Method (circle one):  - Vibracoring
IV.	Coordinates:  Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663481</u> - Easting (ft): <u>589266</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663485.1</u> - Easting (ft): <u>589266.8</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>544</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/7</u>
VI.	Core ID: <u>188</u>
VII.	Water Depth at Time of Coring (ft): <u>7</u> Precise Time When Water Depth Was Measured <u>0846</u>
VIII.	Start Time of Coring (24-hour): <u>0845</u> End Time of Coring (24-hour): <u>0850</u>
IX.	Penetration: <ul style="list-style-type: none"> <li>- Length of Core liner (in): <u>24</u></li> <li>- Target Penetration (in): <u>18</u></li> <li>- Actual Penetration (in): <u>18</u></li> <li>- Acceptable Penetration Achieved (Y or N)*: <u>Y</u></li> </ul> <p>Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____</p> <p>*Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)</p>
X.	PID Reading: <u>N/A</u> <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/7</u>
XII.	Core ID: <u>103</u>
XIII.	Recovery: - Recovery (in): <u>11</u> - Recovery Acceptable <input checked="" type="radio"/> (Y) or N): _____  If Recovery (in) $\geq$ 9 inches, <u>then</u> recovery is acceptable. If Recovery (in) $<$ 9 inches, <u>then</u> refer to Section 4.2.4 of this SOP (SOP No. 11)
XIV.	Final Disposition of Core (circle one): - Retained for Processing <input checked="" type="radio"/> - Rejected <input type="radio"/>  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**

(Sheet 4 of 4)

XV.	Date: <u>12/7</u>
XVI.	Core ID: <u>183</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PSO</u>

Relinquished By PSO Company Acadix Date 12/7 Time 1200

Accepted By ZML Company Acadix Date 12/7 Time 1205

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 4)

I.	Date: <u>12/7</u>
II.	Core ID: <u>188</u> Water Depth and precise time measured <u>7 0800</u>
III.	Sediment Collection Method (circle one): <input type="checkbox"/> Vibracoring
IV.	Coordinates: Target Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663481.0</u> - Easting (ft): <u>589246</u>  Positioning of Initial Core Attempt Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>663499.2</u> - Easting (ft): <u>589268.2</u>  Confirm initial core location coordinates are within 5 feet of target coordinates <u>Y</u> (Y or N)  Final Core Collection Location Coordinates (New Jersey State Plane NAD 83) - Northing (ft): <u>SAA</u> - Easting (ft): _____  Confirm final core location coordinates are within 50 feet of target coordinates <u>Y</u> (Y or N)

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 4)

V.	Date: <u>12/7</u>
VI.	Core ID: <u>188</u>
VII.	Water Depth at Time of Coring (ft): <u>7</u> Precise Time When Water Depth Was Measured <u>0850</u>
VIII.	Start Time of Coring (24-hour): <u>0845</u> End Time of Coring (24-hour): <u>0850</u>
IX.	Penetration: - Length of Core liner (in): <u>24</u> - Target Penetration (in): <u>18</u> - Actual Penetration (in): <u>18</u> - Acceptable Penetration Achieved (Y or N)*: <u>Y</u>  Refusal? (circle one): Yes <input type="radio"/> No <input checked="" type="radio"/> Depth of Refusal _____  *Acceptable penetration = at least 9 inches and length of core liner minus safety factor of 3 inches (21 inches)
X.	PID Reading: <u>N/A</u>  <b>Breathing Zone Action Levels:</b> For total hydrocarbon levels >5 ppm, upgrade to Level C PPE. For total hydrocarbon levels >25 ppm, stop work. For hydrogen sulfide levels >5 ppm, stop work, evacuate work area, and ventilate.

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 3 of 4)

XI.	Date: <u>12/7</u>
XII.	Core ID: <u>198</u>
XIII.	Recovery: - Recovery (in): <u>12</u> - Recovery Acceptable <u>Y</u> or N): _____ <u>If Recovery (in) ≥ 9 inches, then recovery is acceptable.</u> <u>If Recovery (in) &lt; 9 inches, then refer to Section 4.2.4 of this SOP (SOP No. 11)</u>
XIV.	Final Disposition of Core (circle one): - Retained for Processing - Rejected  If rejected, reason for rejection: _____ _____ _____

**INDIVIDUAL CORE COLLECTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 4 of 4)

XV.	Date: <u>12/7</u>
XVI.	Core ID: <u>188</u>
XVII.	Notes (see logbook for additional information): _____ _____ _____ _____ _____
XVIII	Name of Person Responsible for Log: <u>PJO</u>

Relinquished By PJO Company Arcadis Date 12/7 Time 1200  
 Accepted By ZML Company Arcadis Date 12/7 Time 1205

Relinquished By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

## **Appendix E**













Penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Title: NBSA Phase III Sediment Investigation  
Quality Assurance Project Plan Amendment  
Revision Number: 2. Revision Date: September 2016

**SURFACE SEDIMENT COLLECTION FORM**

Project Name: NBSA. SED. INVESTIGATION Project no.: B0009989.0029  
Date: 1/14 Weather: CLEAR, SUN  
Sampling Method: PONAR Crew: ARCADIS

GRAB DATA		Location ID:	Vessel Position Number:		
Latitude/Northing (Y):		<u>256</u>	<u>5</u>		
<u>673405.4</u>		Longitude/Easting (X):		<u>591619.6</u>	
Grab Sample Number	Grab Sample Time	Bottom depth	Penetration <sup>#</sup> Depth (cm) <small>1/24/17</small>	Acceptable grab (Y/N)	Comments:
<u>1</u>	<u>1025</u>	<u>44.8</u>	<u>3"</u>	<u>N</u>	
<u>2</u>	<u>1030</u>	<u>43.5</u>	<u>0</u>	<u>N</u>	
<u>3</u>	<u>1035</u>	<u>44.0</u>	<u>2</u>	<u>N</u>	
<u>4</u>	<u>1040</u>	<u>44.0</u>	<u>0</u>	<u>N</u>	
<u>5</u>	<u>1045</u>	<u>44.5</u>	<u>5"</u>	<u>Y</u>	

SAMPLE DATA		Sample ID: <u>NB05E0-CHLUMPIO</u>		
Analyses needed before homogenization (circle):		<input checked="" type="checkbox"/> VOC	<input checked="" type="checkbox"/> TEPH-Purgeables	Other:
<b>Sediment type</b>	<b>Sediment color</b>	<b>Sediment odor</b>		<b>Comments:</b> (i.e. redox potential discontinuity, organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, etc.)
cobble	brown surface	<input checked="" type="checkbox"/> none	H <sub>2</sub> S	
gravel	drab olive	<input type="checkbox"/> slight	petroleum	
sand (F M C)	<input checked="" type="checkbox"/> brown	<input type="checkbox"/> moderate	other:	
<input checked="" type="checkbox"/> silt	gray	<input type="checkbox"/> strong		
clay	black			

Relinquished By P. Dagher Company Arcadis Date 1/14 Time 1600  
Accepted By J. Hagarty Company Arcadis Date 1/14 Time 1600









Penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

Title: NBSA Phase III Sediment Investigation Quality Assurance Project Plan Amendment  
 Revision Number: 2. Revision Date: September 2016

### SURFACE SEDIMENT COLLECTION FORM

Project Name: NBSA SED. INVESTIGATION Project no.: B0009989.02A9  
 Date: 11/16 Weather: CLEAR  
 Sampling Method: POMAR Crew: ACCADIS

GRAB DATA		Location ID:	Vessel Position Number:		
Latitude/Northing (Y):		<u>673351.4</u>	Longitude/Easting (X): <u>589433.4</u>		
Grab Sample Number	Grab Sample Time	Bottom depth	Penetration Depth (cm/in)	Acceptable grab (Y/N)	Comments:
<u>1</u>	<u>0855</u>	<u>59.3</u>	<u>1"</u>	<u>N</u>	<u>clay bottom - hard</u>
<u>2</u>	<u>0900</u>	<u>60.4</u>	<u>1"</u>	<u>N</u>	
<u>3</u>	<u>0905</u>	<u>60.6</u>	<u>0</u>	<u>N</u>	<u>MVE to land as per EPA</u>
					<u>* NO SAMPLE - LOC ABANDONED</u>

SAMPLE DATA		Sample ID:	
Analyses needed before homogenization (circle): VOC    TEPH-Purgeables    Other:			
<b>Sediment type</b>	<b>Sediment color</b>	<b>Sediment odor</b>	
cobble	brown surface	none	H <sub>2</sub> S
gravel	drab olive	slight	petroleum
sand (F M C)	brown	moderate	other:
silt	gray	strong	
clay	black		
<b>Comments:</b> (i.e. redox potential discontinuity, organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, etc.)			

Relinquished By P. Dayher Company ACCADIS Date 11/16 Time \_\_\_\_\_  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Penetration depth units were corrected to indicate inches on 11/24/17 during QC review of the Phase III Field Report.

Title: NBSA Phase III Sediment Investigation  
 Quality Assurance Project Plan Amendment  
 Revision Number: 2. Revision Date: September 2016

**SURFACE SEDIMENT COLLECTION FORM**

Project Name: NBSA - SED. INVESTIGATION Project no.: B0009989.0049  
 Date: 11/16 Weather: clear, sun  
 Sampling Method: PONAR Crew: ARCADIS

GRAB DATA		Location ID:	Vessel Position Number:		
Latitude/Northing (Y):		<u>25B</u>	<u>4</u>		
<u>672683.2</u>		Longitude/Easting (X):		<u>590730.9</u>	
Grab Sample Number	Grab Sample Time	Bottom depth	Penetration Depth (cm) in	Acceptable grab (Y/N)	Comments:
<u>1</u>	<u>0910</u>	<u>60.9</u>	<u>0</u>	<u>N</u>	<u>clay - hard bottom</u>
<u>2</u>		<u>59.4</u>	<u>0</u>	<u>N</u>	<u>CLAY - hard</u>
<u>3</u>	<del>Location abandoned</del>				<u>No sample</u>
<u>4</u>	<u>0930</u>	<u>42.5</u>	<u>4.5"</u>	<u>Y</u>	
		<u>N) 672746.7</u>		<u>E) 590731.3</u>	
<u>* MOVED to opposite side of channel AS per EPA, Terra</u>					

SAMPLE DATA		Sample ID: <u>NB03500-CHUMP02</u>		
Analyses needed before homogenization (circle):		VOC	TEPH-Purgeables	Other:
Sediment type	Sediment color	Sediment odor		Comments: (i.e. redox potential discontinuity, organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, etc.)
cobble	brown surface	none	H <sub>2</sub> S	
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

Relinquished By: P. Dayher Company: ARCADIS Date: 11/16 Time: 1900  
 Accepted By: J. Haggarty Company: ARCADIS Date: 11/16 Time: 1500

















Penetration depth units were corrected to indicate inches on 11/24/17 during QC review of the Phase III Field Report.

Title: NBSA Phase III Sediment Investigation  
 Quality Assurance Project Plan Amendment  
 Revision Number: 2. Revision Date: September 2016

**SURFACE SEDIMENT COLLECTION FORM**

Project Name: NBSA. SED. INVESTIGATION Project no.: B0009989.0249  
 Date: 11/17 Weather: Windy  
 Sampling Method: PONAR Crew: ACCROSS

GRAB DATA		Location ID:	Vessel Position Number:		
Latitude/Northing (Y):		<u>279</u>	Longitude/Easting (X):		
<u>659304.2</u>			<u>589797.7</u>		
Grab Sample Number	Grab Sample Time	Bottom depth	Penetration Depth (cm)	Acceptable grab (Y/N)	Comments:
<u>1</u>	<u>1020</u>	<u>60.1</u>	<u>0</u>	<u>N</u>	
<u>2</u>	<u>1025</u>	<u>59.8</u>	<u>0</u>	<u>N</u>	
<u>3</u>	<u>1030</u>	<u>59.9</u>	<u>0</u>	<u>N</u>	
<u>4</u>	<u>1103</u>	<u>57</u>	<u>0</u>	<u>N</u>	
<u>↳ * N) 659452.4</u>			<u>E) 589911.1</u>		
<u>* location abandoned</u>			<u>NO SAMPLE</u>		

SAMPLE DATA		Sample ID:
Analyses needed before homogenization (circle):		<u>N/A</u>
<input type="checkbox"/> VOC <input type="checkbox"/> TEPH-Purgeables <input type="checkbox"/> Other:		
Sediment type cobble gravel sand (F M C) silt clay	Sediment color brown surface drab olive brown gray black	Sediment odor none    H <sub>2</sub> S slight    petroleum moderate    other: strong
Comments: (i.e. redox potential discontinuity, organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, etc.)		

Relinquished By P. Dagher Company ACCROSS Date 11/17 Time 1600  
 Accepted By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Penetration depth units were corrected to indicate inches on 1/24/17 during QC review of the Phase III Field Report.

**SURFACE SEDIMENT COLLECTION FORM**

Project Name: NBSA. SED. INVESTIGATION Project no.: B0009989.0-49  
 Date: 11/17 Weather: windy  
 Sampling Method: PONAR Crew: ACCADIS

GRAB DATA		Location ID:	Vessel Position Number:		
Latitude/Northing (Y):		<u>280</u>	<u>—</u>		
<u>658380.4</u>		Longitude/Easting (X):		<u>590924.1</u>	
Grab Sample Number	Grab Sample Time	Bottom depth	Penetration Depth (cm) in	Acceptable grab (Y/N)	Comments:
<u>1</u>	<u>1035</u>	<u>40.8</u>	<u>0</u>	<u>N</u>	<u>Bottom very hard</u>
<u>2</u>	<u>1040</u>	<u>61.2</u>	<u>0</u>	<u>N</u>	
<u>3</u>	<u>1045</u>	<u>62.0</u>	<u>0</u>	<u>N</u>	
<u>* Location Abandoned. * NO Sample</u>					

SAMPLE DATA Sample ID: N/A

Analyses needed before homogenization (circle): VOC  TEPH-Purgeables  Other:

Sediment type	Sediment color	Sediment odor		Comments: (i.e. redox potential discontinuity, organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, etc.)
cobble	brown surface	none	H <sub>2</sub> S	
gravel	drab olive	slight	petroleum	
sand (F M C)	brown	moderate	other:	
silt	gray	strong		
clay	black			

Relinquished By: P. Dayher Company: ACCADIS Date: 11/17 Time: \_\_\_\_\_  
 Accepted By: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_







































































## Appendix F

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>399</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay 2L 10/25/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675855.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596325.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/24/16 Date of Core Processing: 10/25/16

Core ID: 399

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'   0.5	0-0	gray black fine to medium sands some silt and clay, little shells and shell fragments dense, wet	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>391</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay 2L 10/25/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>676876.14</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597597.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Lejune</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/29/16 Date of Core Processing: 10/25/16

Core ID: 391

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	00	gray bluish silty clay, little fine sand, trace shells and shell fragments wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>384</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay NC 10/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678205.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598244.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/24/16 Date of Core Processing: 10/25/16

Core ID: 384

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0	0.0	bluish silty clay and fine sands, wet, soft, trace bivalve shells	moderate organic HMC etc.
-			
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>385</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>677797.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>677791.0</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/24/16 Date of Core Processing: 10/25/16

Core ID: 385

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -	0.0	brown gray silty clay, trace fine sand, little bivalve shells, soft, wet	
0.5 -			
1.0 -			
1.5 -			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>386</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay re 10/27</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>6778337</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597326.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/24/16 Date of Core Processing: 10/25/16

Core ID: 386

Person Responsible for Log: Z. Lesure

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0	dark brown fine to medium sand, some silt and clay, trace shells and shell fragments wet, m. dense	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>387</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay 10/27<sup>NO</sup></u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>677544.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597924.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/24/15 Date of Core Processing: 10/25/15

Core ID: 387

Person Responsible for Log: N. COMRIE

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.5	0.0	black gray, silty clay, trace fine sand, little brachiopod shells wet, soft	organic odor
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>388</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay 10j27 MC</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>677233.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598583.36</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/24/16 Date of Core Processing: 10/25/16

Core ID: 388

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 6 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0	0.0	brown gray silty clay, trace fine sand. <del>trace</del> <sup>2-3</sup> bivalve shells little	organic odor
-			
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>395</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>676521.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596670.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 10/24/16 Date of Core Processing: 10/25/16

Core ID: 395

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0	0.0	dark gray brown, fine to medium sand, some silt, little <sup>zirconium</sup> and shell fragments <del>bract</del> shells wet, dense	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>396</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay # 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>676375.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597681.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 396

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5' 0.5	0.0	black to dark brown, fine sand and clayey silt, trace fine roots, trace shells and shell fragments wet, v. soft	slight organic like odor
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>397</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay # 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675899.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597939.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 397

Person Responsible for Log: Z. Lejura

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	black to dark brown, silty clay, trace fine sand, little <del>sand</del> sand sized shells and shell fragments wet, v. soft	slight organic-like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>400</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay J# 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675570.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596956.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 400

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0  - 0.0 - 0.5'	0.0	dark brown silty clay, little fine sand, little fine to coarse shells (sand to gravel sized), wet, v. soft	Slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>401</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay # 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674907.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598279.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE II SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 401

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0	dark brown silty clay, trace fine sand, trace fine shell fragments wet, v. soft	slight organic- like odor -
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <del>405</del> <sup>26 10/26/16</sup> <u>404</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay # 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674567.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597292.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 404

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0	dark brown silty clay, trace fine sand, wet, v. soft	slight organic like odor  
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>405</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay J# 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674251.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597954.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 405

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty clay, trace fine sands, wet, v. soft, trace worms	slight organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>406</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay # 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674525.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595798.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 406

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	10/26/16 ZL <del>0.2</del> 0.2	black to dark brown, silty clay, little fine sand, trace sand sized shell fragments, trace worms wet, v. soft	
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

i.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
ii.	Date of Core Processing: <u>10/26/16</u>
iii.	Core ID: <u>407</u> (from Individual Core Collection Form)
iv.	Physical Description: <u>North Newark Bay J* 10/27/16</u> (from Core Collection Form)
v.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674234.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596309.2</u> (from Individual Core Collection Form)
vi.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 407

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty clay, little fine sand, trace fine shells and shell fragments, wet, v. soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>408</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay 5<sup>th</sup> 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>673909.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596908.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 408

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, silty clay, trace fine sands, wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>409</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay # 10/27/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>673594.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597627.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/25/16 Date of Core Processing: 10/26/16

Core ID: 409

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, silty clay, trace fine sand, wet, v. soft.	slight organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>370</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>686523.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>686515.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 370

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown fine sand and clays, silt, trace shell fragments	organic like odor
0.5		red worms, woody debris	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>371</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>686085.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>686079.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 371

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown clayey silt; trace fine sand, trace fine shells wet, v. soft	organic like odor
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>375</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>684395.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599927.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leasure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 375

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand, wet, soft	strong organic like odor
0.5		abundant worms, shells with burrows on surface; decaying plant material woolly material	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>379</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>683216.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599183.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 379

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown clayey silt and fine sand, little fine shells some woody debris wet, soft	wood debris
0.5			
1.0			
1.5			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>383</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678449.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597689.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 383

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	black to dark brown clayey silt, little fine sand, trace v.f. shells wet, soft	slight organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>389</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>677192.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599384.0</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 389

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0	dark brown, clayey silt, little fine sand, trace fine shells wet, soft	slight organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>392</u> <sup>26 10/27/16</sup> <u>10/27/16</u>
III.	Core ID: <u>392</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>676563.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598258.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leivore.</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 392

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty clay, little fine sand, trace shells. wet, soft	Slight organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>393</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>676233.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598905.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 393

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty clay, little fine sand, trace for shells wet, <del>soft</del> dense	organic like odor 
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>398</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675574.6</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598600.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 398

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown to black, clayey silt, little fine sand, little fine grain sized to c. gravel sized shells, trace fine gravel	organic like odor
0.5		wet, soft	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>394</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675907.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599517.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 394

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty clay, little fine sand, trace shells wet, soft	organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>402</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674625.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598828.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 402

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.3	dark brown to black, fine to medium sand, some silt, trace shells grades down to silty clay shells more dominant on top surface	organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>403</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674868.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596593.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/26/16 Date of Core Processing: 10/27/16

Core ID: 403

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5' 0.5	0.0	dark brown clayey silt, little fine sand, trace fine shells wet, soft	slight organic like odor
- 1.0 - 1.5 - 2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>376</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northwest Navate Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>684147.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600437.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 376

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty fine to medium sand, little clay, trace shells trace woody debris. wet, dense	strong organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>378</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>683471.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600088.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/27/16 Date of Core Processing: 10/28/16

Core ID: 378

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0	dark brown silty sand, some clay little fine to coarse shells, wet, dense	slight organz like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>308</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>682665.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600803.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner.</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 308

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5' 0.5	0.0	dark brown, clayey s.s. trace fine sand. trace fine roots wet, soft	organic like odor
- 1.0 - 1.5 - 2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>307</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Muck bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>682910.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600177.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 307

Person Responsible for Log: Z. Leiswe

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0	dark brown silty sands fubble clay, trace fine shells  wet, dense	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>377</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>683807.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u><sup>NO DATA</sup> 599531.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Lewis</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 377

Person Responsible for Log: Z Leroux

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0	dark brown silty fine to medium sand, little clay, trace fine shells wet, loose	organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>313</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>692028.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598880.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 313

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand, trace fine shells  wet, soft	organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>309</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>681667.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>601112.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Lewis</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 309

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5' 0.5'	0.0	dark brown silty fine sand, some clay, trace fine shells wet, dense	slight organic like odor
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>310</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northwest Newk Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>62344.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599811.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 310

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0 	dark brown silty sand, some clay, little fine shells wet, dense	slight organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/22/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>311</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>682012.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600484.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE II SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 311

Person Responsible for Log: Z. Lejourne

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown, clayey silt, trace fine sand, trace fine shells  wet, v. soft	organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28</u>
III.	Core ID: <u>312</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>682657.6</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599161.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>ZLeisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/27/16 Date of Core Processing: 10/28/16

Core ID: 312

Person Responsible for Log: Z. Leituru

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty fine sand little clay, trace fine gravel little fine shells wet, dense	slight organic like odor 
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>372</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>65256.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>60128.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>W. Conric</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 372

Person Responsible for Log: N. Connor

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0	dark brown clayey silt, Wet, very soft	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>374</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>684967.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600814.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 374

Person Responsible for Log: N. Coan

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5		dark brown, fine to medium sand, little silt, trace shells wet, loose, trace <del>fibers</del> wood fibers	—
0.5		organic odor	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>373</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bg</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>685478.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599551.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 373

Person Responsible for Log: N. Conn

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0ppm	dark brown, silty sand, trace clay, little shells, wet, soft	-
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>1325</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northon Newark Bg</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679403.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600457.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 325

Person Responsible for Log: N. Comite

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.6 ppm	dark brown, clayey silt, trace fine sand, wet, soft	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>324</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bg</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679704.6</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600141.0</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>M. Connor</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 327

Person Responsible for Log: W. Conn

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0 ppm	dark brown, clayey silt Trace fine sand, Trace fine pebbles, wet, soft <del>Trace fine</del> 11/2/16	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>323</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>680028.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599476.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>A. Come</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 323

Person Responsible for Log: N. Conrath

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface In Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0 ppm	dark brown, clayey silt, trace fine sand, wet, soft Trace 2" diameter stone	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>322</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bg</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>680378.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598879.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>M. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 322

Person Responsible for Log: N. Coman

**Breathing Zone Action Levels:**  
 For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0 ppm	dark brown, clayey silt, trace fine sand, wet, soft	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>1/12/16</u>
III.	Core ID: <u>321</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>681075.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597297.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 321

Person Responsible for Log: N. Comra

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0 ppm	dark brown clayey silt, trace fine sand, met, soft Trace shells	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>320</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>640029.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>601135.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 2)

Date of Core Collection: 11/16/18 Date of Core Processing: 11/21/18

Core ID: 370

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown (clayey silt, trace fine sand) trace shells wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>319</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>680360.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>608470.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/17/16 Date of Core Processing: 11/2/16

Core ID: 319

Person Responsible for Log: Z Lejour

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, little fine sand wet soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>318</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>640691.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599810.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisore</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 318

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, fine fine sand wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>317</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>681176.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599069.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 317

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand, trace vegetation/ fine roots wet, soft	faint organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>316</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>680689.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>601465.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Lesure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 316

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0-0	dark brown clayey silt, trace fine sand wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>315<sup>22</sup> 11/2/16</u> <u>11/2/16</u>
III.	Core ID: <u>315</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>681348.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600146.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 315

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.0	dark brown clay silt, little fine sand, trace fine roots  wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>314</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>681678.6</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599478.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/1/16 Date of Core Processing: 11/2/16

Core ID: 314

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -0.0-0.5'	0.0	dark clayey silt, trace fine sand wet, soft	slight organic like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>338</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675050.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593266.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 338

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0  0.0-0.5	0 ppm	clay silt dark brown soft wet soft slight organic odor	
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>344</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>673895.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593019.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/16

Core ID: 344

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0 ppm	clay, with trace fine dark brown sand wet, soft trace shells	_____
0.5			
1.0			
1.5			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>349 - (DUPLICATE)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northon Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>672808.7 (primary)</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>592459.3 (primary)</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 349 (Dup 10)

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0-0.5 0.5	0 ppm	fine sand grey well sorted loose, wet trace shells	—
1.0 1.5 2.0			

**Note:**  
Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>354</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northon Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>671841.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>592969.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 354

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5	0 ppm	Med-F sand grey trace shells loose, wet	—
1.0 - 1.5 - 2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>380</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>672581.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593398.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/16

Core ID: 350

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	1.2 ppm	clay <del>sh</del> <sup>sh</sup> black trace fine sand soft, wet	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>339 MS/MSD</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northwest Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>674084.1 (primary)</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593750.2 (primary)</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 339 (MS/MSD collected here)

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0 ppm	clay silt finesand dbr grey soft, wet	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Notes:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>345</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern New York Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>673292.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593544.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/16

Core ID: ~~339~~ JEM 345

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-05	0.8 ppm	Silty <del>JEM</del> 11/3/16 black silt trace of sand soft wet	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>340</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northwest Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>673422.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595507.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JAM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 340

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0-0.5	0 ppm	dark brown silt trace fine sand soft, wet	—
0.5  1.0  1.5  2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>335</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>676961.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595255.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/2/16 Date of Core Processing: 11/3/16

Core ID: 335

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0 ppm	dark brown silty clay trace fine sand soft, wet	—
0.5       1.0 -      1.5 -      2.0			

**Note:**  
Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>336</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northon Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>676435.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595137.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 336

Person Responsible for Log: JGM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -0.0-0.5	0 ppm	fine sand little silt dark brown wet, loose	
0.5 - 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>337</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675774.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>594806.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: ~~5/5/14~~ 11/2/14 Date of Core Processing: 11/3/16

Core ID: 337

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	<del>0.5 ppm</del> 0.5 ppm	silt black clay silt trace fine sand soft wet	—
0.5			
1.0			
1.5			
2.0			

**Note:**  
Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>330</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679502.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596728.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 330

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0 ppm	black clay silt trace fine sand trace shell fragments soft wet	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>33.3</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North of Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679099.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596553.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 333

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0 ppm	Clay silt fine <del>(JEM)</del> 11/3/14 trace fine sand silt, wet dark grey trace shells	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>334</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northons Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678367.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596209.0</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 334

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0 ppm	Added (JFM) 11/3/14 silt little M-F sand dark brown soft, wet	
0.5 - 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/2/10</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/10</u>
III.	Core ID: <u>390</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>North New York Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>677174.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596987.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/2/14 Date of Core Processing: 11/3/14

Core ID: 390

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface In Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -0.0-0.5	0ppm	fine sand little silt well sorted some shell fragments base, moist greyish brown	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/14</u>
III.	Core ID: <u>332</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678050.6</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599988.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/3/14 Date of Core Processing: 11/4/14

Core ID: 332

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 -	0ppm	silty sand fine sand soft, wet trace shells dark brown	—
1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>331</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678376.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599483.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/3/14 Date of Core Processing: 11/4/14

Core ID: 331

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	clay silt trace fine sand black soft, wet	strong organic odor
0.5  -  1.0  -  1.5  -  2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>382</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678819.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598276.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/3/14 Date of Core Processing: 11/4/14

Core ID: 382

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5	0.1	silty sand trace med sand little shell fragments wet, soft dark brown	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/14</u>
III.	Core ID: <u>381</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northwest Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679158.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598030.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>



**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>329</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northon Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678766.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>60346.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/3/14 Date of Core Processing: 11/4/14

Core ID: 329

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	clay silt trace fines and dark brown soft, wet	-
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>328</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679048.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599833.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/3/14 Date of Core Processing: 11/4/14

Core ID: 328

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	dark brown clay silt trace fine sand wet, soft	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/14</u>
III.	Core ID: <u>327 (DUP-1)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NORTHON NEWARK BAY</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679680.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599213.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/3/16 Date of Core Processing: 11/4/16

Core ID: 327 (DUP-11)

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	dark brown clay silt trace fine sand soft, wet	slight organic odor
0.5 - 1.0 - 1.5 - 2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/14</u>
III.	Core ID: <u>380</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679955.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598427.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/3/14 Date of Core Processing: 11/4/14

Core ID: 380

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	clay silt dark brown trace fine sand wet, soft	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>326 MS / MSD</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>680676.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>397286.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/3/16 Date of Core Processing: 11/4/16

Core ID: 326 (MS/MSD)

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	clay silt trace fine sand dark brown wet soft	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>341</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>673089.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596271.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/3/16 Date of Core Processing: 11/4/16

Core ID: 341

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	①	clay silt trace fine sand dark brown wet soft	—
0.5  -  1.0  -  1.5  -  2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>358</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>669416.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593993.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 358

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5	0.5	dark brown, clayey silt, trace fine sand  wet, soft	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/21/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>357</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>669933.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595023.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 357

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, clayey silt, trace fine sand, trace roots wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>356</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>670733.60</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595335.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 356

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, clayey silt, trace fine sand, trace fine vegetation wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>352</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>671799.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595485.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 2)

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 352

Person Responsible for Log: Z. Leigug

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5	0.0	dark brown, clayey silt, trace fine sand,  wets soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>347</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bag</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>672336.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595976.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leigore</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 347

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.1	dark brown 1c layered silt trace fine sand wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>353</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>671218.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596454.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>- Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 353

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, clayey silty trace fine sand. wet, solid	slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>346</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>672632.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595222.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisuri</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 346

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - <del>0.0</del> - 0.5 <sup>+</sup>	0.0	dark brown clayey silt, trace fine sand, trace fine roots, wet, soft	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>342</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>672475.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597379.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 342

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0  - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand trace fine roots	slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>348</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bag</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>672017.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596769.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>J. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 348

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand, trace fine roots wet soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>351</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>671828</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>594923.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 351

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5' 0.5	0.0	dark brown, clayey silt, trace fine sand, wet, soft	
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>355</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>671024.6</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>594626.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Lejune</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/7/16 Date of Core Processing: 11/8/16

Core ID: 355

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown, clayey silt, trace fine sand, wet, soft	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>343</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>67241.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597845.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Conrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE II SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/7/16 Date of Core Processing: 4/8/16

Core ID: 343

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0		<del>Fine silty sand, little silt</del>	
0.0 - 0.5	0.8	Fine sand, some silt, trace shells, med dense wet brown	
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u> <i>22 11/10/16</i>
III.	Core ID: <u>367 182</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S.W. Corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>664346.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588990.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 182

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 <i>-0.0-0.5'</i>	0.0	dark brown silty fine sand, trace clay, little fine shells wet, medium dense	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>181</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S.W. Corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>664645.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588425.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisoure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 181

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silt and fine sand, trace fine roots wet, medium dense	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>180</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>664943.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587860.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 180

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silt, some fine sand trace fine roots wet, soft	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>179</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>665482.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587413.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leasure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 179

Person Responsible for Log: Z. Leiswe

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown silt, some fine sand, trace fine roots	slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>368</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SE Corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>6630756</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>591332.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 368

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand, wet, soft	slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>366</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Middle-east bank</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>665458.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>592316.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 366

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>365</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Middle-east bank</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>666175.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>592622.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 305

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, clay silt, trace fine sand, wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>302</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle-east bank</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>667833.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593317.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 362

Person Responsible for Log: Z. Lejune

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown clayey silt, trace fine sand wet, v. soft	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>359</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>669458.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>594436.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 359

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5	2.0	dark brown silt, trace fine sand wet, v. soft	
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>361</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle bay - east bank</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>668334.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>594386.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 361

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silt, trace fine sand wet, v. soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>360</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>668618.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593646.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 360

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface In Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown clayey silty fine fine sand wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>363</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>middle</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>667538.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>594070.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 363

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, clayey silt, trace fine sand  wet soft	slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>364</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern New York Bay</u> middle of bay <del>at</del> <sup>on</sup> 11/10/16 (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>667094.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593675.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE II SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: sf 364

Person Responsible for Log: N. Conna

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 -	0.0	dark brown, clayey silt, trace fine sand, wet soft	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>183</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northern Newark Bay S West bank</u> <sup>11/10/16</sup> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>664940.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586443.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Cormier</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 183

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0	dark brown, clayey silt, trace fine sand, trace shells soft wet soft	slight organic odor
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>184</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Northon Newark Bay SW corner # 11/10/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>665045.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586859.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/9/16 Date of Core Processing: 11/10/16

Core ID: 184

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.0	dark brown, clayey silt, trace sand fragments, wet soft	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>206</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner 5<sup>th</sup> 11/11/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662985.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584658.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 206

Person Responsible for Log: Z. Leiswe

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	black silt, trace fine sand, wet, very soft	Slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>199</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner # 11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663460.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584943.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 199

Person Responsible for Log: Z LeSoure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	26 MV16 0.3 1.1	dark brown <sup>black</sup> clayey silt, trace fine sand  wet, v. soft	slight organic odor possible petroleum like odor
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>200</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner #11/11/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663374.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585718.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 200

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	1.2	Dark brown silt, some fine to medium sands wet, m. dense	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>194</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner J# 11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663527.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586392.0</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 194

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	9.6	black to dark brown clayey silt, trace vf. sand wet, soft	slight petro like odor slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>190</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner # 11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>664101.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586693.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE II SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 190

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	38.7	dark brown silt, trace of sand  wet, soft	petro like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>189</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner 11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>669397.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>58621.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 184

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0  0.0-0.5'	2.6	dark brown silt, some fine to medium sand, trace shell fragments, vegetation, shells on surface	
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>201</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner J# 11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662953.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586098.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 201

Person Responsible for Log: Z Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown, clayey silt. trace fine sand wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>195</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner # 11/11/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663229.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586764.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 195

Person Responsible for Log: Z Le'Sure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	<del>24</del> 46.0	dark brown to black, clayey silt, trace to medium sand wet, soft	
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>191</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner #11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663805.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587257.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 10/10/16 Date of Core Processing: 11/11/16

Core ID: 191

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	0.8	dark brown to black, clayey silty trace fine sand wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>187</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner # 11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663778.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586779.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 187

Person Responsible for Log: N. Corrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown, silty clay <sup>silt</sup> clayey silt, trace fine sand, wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>186</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner # 11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>664074.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586133.0</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 186

Person Responsible for Log: M. Comra

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5	0.0	Silty sand and shells dark gray, wet, loose	—
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab. Therefore, recorded depths are representative of laboratory recovery depth values and do not correspond with sediment sample depth intervals, which were adjusted to match penetration depths.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>185</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner #11/14/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>664373.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587561.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/10/16 Date of Core Processing: 11/11/16

Core ID: 185

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.2	dark gray, clayey silt, trace fine sand, wet soft.	slight petrol odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>4/15/16</u>
III.	Core ID: <u>211</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner of Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661572.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587417.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/14/16 Date of Core Processing: 11/15/16

Core ID: 211

Person Responsible for Log: Z. Leiswe

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.1	dark brown silty fine to medium sand little shells wet, m. dense	slight organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/15/16</u>
III.	Core ID: <u>213</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662412.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584365.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/14/16 Date of Core Processing: 11/15/16

Core ID: 213

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	9.1	black silt, little fine sand. wet, dense	Strong organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/15/16</u>
III.	Core ID: <u>207</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662686.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585230.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/14/16 Date of Core Processing: 11/15/16

Core ID: 207

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	5.7	black clayey silt, trace fine sand  wet, v. soft	organic odor petroleum like odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/15/16</u>
III.	Core ID: <u>205</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661859.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588265.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Le'sure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/14/16 Date of Core Processing: 11/15/16

Core ID: 205

Person Responsible for Log: Z Lesure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 <sup>ft</sup>	0.1	dark brown fine to coarse sand, some silt, little fine to coarse shells wet, medium dense	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/16/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16</u>
III.	Core ID: <u>217</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661324.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586653.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/16/14 Date of Core Processing: 11/17/14

Core ID: 217

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0-0.5	0	grey silty clay trace fine sand trace shells med stiff, wet	—
1.0 — 1.5 — 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/16/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/14</u>
III.	Core ID: <u>221</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661312.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585199.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/16/14 Date of Core Processing: 11/17/14

Core ID: 221

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 -	4.1	Black clay-silt trace fine sand wet, soft	strong petrol like odor at 4 inches
1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/16/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/14</u>
III.	Core ID: <u>225 (DWP-14)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661165.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584345.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/16/10 Date of Core Processing: 11/17/10

Core ID: ZZ5 (QD-14)

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	Black clay silt some fine-med sand little shells wet. soft	slight organic odor
0.5 -			
1.0 -			
1.5 -			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/16/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/14</u>
III.	Core ID: <u>224 (MS/MSD)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661311.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>583764.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JAM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/16/16 Date of Core Processing: 11/17/16

Core ID: ZZ4 (MSIMSD)

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0 at surface 10-1 11/17/16 <del>at JEM</del> after mixing	Black clay-silt some fine-coarse sand large clay trace shells wet med stiff	slight petrol odor
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/16/17</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/17</u>
III.	Core ID: <u>220</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661545.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584641.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/16/16 Date of Core Processing: 11/17/16

Core ID: 220

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	Black clay silt little fine sand wet, soft	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/14/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/14</u>
III.	Core ID: <u>215</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661815.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585506.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JAM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/14/16 Date of Core Processing: 11/17/16

Core ID: 215

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	Black clay-silt little fine sand	slight petroleum odor
0.5	6.4 after mixed	wet, soft trace fine roots trace shells	
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/14/10</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/10</u>
III.	Core ID: <u>214</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661916.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585959.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/16/14 Date of Core Processing: 11/17/14

Core ID: 214

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 -	0 4.8 after mixing	Black claysilt trace fine sand wet, soft	slight petroleum odor
1.0 -			
1.5 -			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/16/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16</u>
III.	Core ID: <u>209</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662088.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586373.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/16/14 Date of Core Processing: 11/17/16

Core ID: 209

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	Dark Brown Clay silt some fine sand	-
0.5		wet soft fracture roots trace shell fragments	
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <sup>III 18/14</sup> <del>8/3</del> 11/17/14 (from Individual Core Collection Form)
II.	Date of Core Processing: 11/18/14
III.	Core ID: 231 (from Individual Core Collection Form)
IV.	Physical Description: South - the Kills (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): 658915.8 (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): 587174.1 (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: JEM

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/17/14 Date of Core Processing: 11/18/16

Core ID: 231

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	DK brown clayey silt trace fine sand trace shells wet, soft	-
0.5 - 1.0			
1.5 - 2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/17/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/18/16</u>
III.	Core ID: <u>224</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Shooter's Island</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>658934.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587775.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/17/16 Date of Core Processing: 11/18/16

Core ID: 224

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface In Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5	0	Dk Brown clayey silt little fine coarse sand wet, very soft	—
0.5 - 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/17/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/18/16</u>
III.	Core ID: <u>227</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>The Kills</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>658120.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>589525.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/17/14 Date of Core Processing: 11/18/14

Core ID: 227

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 - 1.0 - 1.5 - 2.0	0.1	Dk Brown clayey silt little fine sand trace roots wet, very soft	—

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/17/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/18/14</u>
III.	Core ID: <u>233</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Shooter Island</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>658320.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588035.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/17/14 Date of Core Processing: 11/18/14

Core ID: 233

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	Dk Brown silt, little clay trace f sand wet, very soft	slight organic odor
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/30</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1</u>
III.	Core ID: <u>249</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Shooter Island</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>659071.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584389.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/30/16 Date of Core Processing: 12/1/16

Core ID: 249

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.7	dark brown, clayey silt, true f-@ sand little shells wet, loose	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1/16</u>
III.	Core ID: <u>238</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>659536.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584316.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/30/16 Date of Core Processing: 12/1/16

Core ID: 238

Person Responsible for Log: Z. Leasure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -0.0-0.5'	0.0	dark brown to black, silty fine to coarse sand, wet, loose little shells	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1/16</u>
III.	Core ID: <u>237</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>660005.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>583755.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/30/16 Date of Core Processing: 12/1/16

Core ID: 237

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	1.2	dark brown silty clay, trace f. sand wet, v. soft	organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1/16</u>
III.	Core ID: <u>247</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>659429.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>583125.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 11/30/16 Date of Core Processing: 12/1/16

Core ID: 247

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**  
 For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silty clay, some f-m. sand <del>soft</del> soft, wet, loose	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1/16</u>
III.	Core ID: <u>236</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>660024.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>583161.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/30/16 Date of Core Processing: 12/1/16

Core ID: 236

Person Responsible for Log: Z. Lebour

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	gray to dark brown, silty clay, trace f-sand trace shells wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1/16</u> <u>1</u>
III.	Core ID: <u>248</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>659184.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584068.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leasure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 11/30/16 Date of Core Processing: 12/1/16

Core ID: 248

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0		dark brown clayey silt	light weight
- 0.0-0.5	0.0		
0.5		v. soft, wet	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/2/16</u>
III.	Core ID: <u>289</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>N. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>686886.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>601904.6</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/1/16 Date of Core Processing: 12/2/16

Core ID: 289

Person Responsible for Log: Z. Leisner

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	red brown <sup>fine</sup> sand, little silt, little shells  loose, wet	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/2/16</u>
III.	Core ID: <u>290</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>N. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>685909.6</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>601146.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/1/16 Date of Core Processing: 12/2/16

Core ID: 290

Person Responsible for Log: Z Le'sure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.1	dark brown - c. sand, trace granules, some silt loose, wet	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>232</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Bay NA # 12/6/16</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <del>659615.5</del> <sup># 12/6/16</sup> <u>658522.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585227.2</u> <u>587262.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>M. Conner</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/5/16 Date of Core Processing: 12/6/16

Core ID: 232

Person Responsible for Log: N. Conric

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -	0.2	Clayey silt, trace fine sand, very dark brown, soft, wet, etc	slight odor
0.5 -			
1.0 -			
1.5 -			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>242</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <sup>J# 12/6/16</sup> <del>658522.4</del> <u>658522.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <del>587262.6</del> <u>586412.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/5/16 Date of Core Processing: 12/6/16

Core ID: 242

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -	0.3	Silty silt, trace fine sand, dark brown, wet, soft	-
0.5 -			
1.0 -			
1.5 -			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>241</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <sup>at 12/6/16</sup> <del>658522.1</del> <u>658636.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <del>586425</del> <u>5860045</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>M. Comm</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/5/16 Date of Core Processing: 12/6/16

Core ID: 241

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -	0.2	clayey silt, trace silt dark brown, wet, very soft	-
0.5 -			
1.0 -			
1.5 -			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 2)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>230</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <sup>12/6/16</sup> <del>654636.9</del> <u>660022.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <del>586001.5</del> <u>584606.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Connor</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/5/16 Date of Core Processing: 12/6/16

Core ID: 230

Person Responsible for Log: N. Comra

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0	0.0	clayey silt, trace fine sand,	—
-		dark brown, wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>239</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S. Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>659615.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585227.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/5/16 Date of Core Processing: 12/6/16

Core ID: 239

Person Responsible for Log: N. Connac

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface In Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.1	clayey silt, trace fine sand dark brown, <del>too</del> wet, SOF	-
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>234</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>S Bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>658053.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588323</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/5/16 Date of Core Processing: 12/6/16

Core ID: 234

Person Responsible for Log: N. Comrie

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0-1	Clayey silt, dark brown trace fine sand, wet soft	-
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>245</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill Van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>660934.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>580580.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>A. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/5/16 Date of Core Processing: 12/6/16

Core ID: 245

Person Responsible for Log: N. Comra

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0.1	fine sand and silt, soft wet, dark brown, trace fine gravel little WOOD Debris	-
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>235</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill Van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>66114.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>581455.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. Buchanan</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/5/2016 Date of Core Processing: 12/06/2016

Core ID: 235

Person Responsible for Log: C. BUCHANAN

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.5	1.7	clay silt, trace fine sand, <del>trace gravel</del> <sup>KB 12/11</sup> wet soft, drab brown, slight organic odor	-
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>228</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill Van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661526.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>581778.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. BUCHANAN</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 228

Person Responsible for Log: CYNTHIA BUCHANAN

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0'-0.5'	2.2	Clay-silt, trace fine-med. Sand. Wet soft, trace organic material, strong organic odor.	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>222</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661834.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>582699.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. BUCHANAN</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 222

Person Responsible for Log: C. BUCHANAN

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 -	0.1	Clay-silt, <del>trace</del> <sup>little</sup> fine sand, trace shells, trace organic material. Wet, soft, very dark brown	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>212</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662534.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>583574.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. BUCHANAN</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 212

Person Responsible for Log: C. BUCHANAN

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0-0.5	1-2	Clay+Sil, trace fine sand dark brown, wet, soft	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/15/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/16/16</u>
III.	Core ID: <u>218</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661955.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>583525.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. Buchanan</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 218

Person Responsible for Log: C. BUCHANAN

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0' - 0.5'	0.0	Fine-medium sand, little silt, trace shells. dark brown, loose, wet	Petroleum like odor
0.5	2.5	Slight organic odor <del>CB 12/6/16</del>	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>223</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661569.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>583193.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. BUCHANAN</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/16/2016

Core ID: 223

Person Responsible for Log: C. Kucharski

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0' - - 0.5'	0.5	Fine-med sand - little silt, trace shells. 100%, wet, dark brown	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>229</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661147.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>582910.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. BUCHANAN</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 229

Person Responsible for Log: C. BUCHANAN

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0' - 0.5'	0.0	Silt and sand, Fine-med. dark brown soft, wet. trace shells	Petrol odor (strong)
0.5	10.4		
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>219</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661841.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584061.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. Buchanan</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 21A

Person Responsible for Log: C. Buchanan

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0' - 0.5'	4.0  10.9	clay silt, trace fine sand very dark brown, wet soft	Petrol Odor (strong)
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>214</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662110.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584932.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. BUCHANAN</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 214

Person Responsible for Log: C. Beckman

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0' - 0.5'	9.1  12.7	Clay Silt, little fine Sand, wet, soft, very dark brown	Petrol odor (strong)
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <sup>d</sup> <u>12/09/2016</u>
III.	Core ID: <u>20B</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662390.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585801.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>C. BULHANN</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/05/2016 Date of Core Processing: 12/06/2016

Core ID: 208

Person Responsible for Log: C. BUCHANAN

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 0.0' - 0.5'	0.4	Clay silt, trace fine sand, soft, wet, very dark brown	petrol odor (slight)
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>307</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>East Bank - Middle</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663858.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>591680.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 367

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	Clayey silt trace fine sand wet very soft dark brown	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>369</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill Van Kull - North Bank</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>659629.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>590892.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 309

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	F-M sand little silt wet, loose Dark brown Trace shells + Trace M-gravel	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/16/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/17/14</u>
III.	Core ID: <u>244</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>657742.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588338.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 244

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	clayey silt little f-sand wet very soft dark brown	organic odor
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>243</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill Van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>657744.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587742.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/4/14 Date of Core Processing: 12/16/16

Core ID: 243

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0			
- 0.0-0.5	0	Silt and SAND (Fine to medium sand), trace shells, wet, soft, dark brown	-
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>242-252 J#12/7/16</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>657526.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586990.5</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/16 Date of Core Processing: 12/7/16

Core ID: 242252 J# 12/7/16

Person Responsible for Log: N. Comen

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0 - 0.5'	6	Silt and Sand (fine to very coarse) trace fine gravel, loose, wet, dark brown no odor	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>251</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>657795.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586490.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/16 Date of Core Processing: 12/7/16

Core ID: 251

Person Responsible for Log: N. Gomic

**Breathing Zone Action Levels:**  
 For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.  
 For total hydrocarbon levels > 25 ppm, stop work.  
 For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	Silt and sand (f-v c) little f-gravel loose soft, very dark brown trace M-gravel	—
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**  
 Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/14</u>
III.	Core ID: <u>293 (parr)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>682462.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598021.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 293 (pore)

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 - 1.0 - 1.5 - 2.0	0	clayey silt trace f-sand wet v-soft v-Dark Brown	slight organic odor

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>294 (ponar)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>679168.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597350.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/4/14 Date of Core Processing: 12/7/14

Core ID: 294 power

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 -	0	clayey silt little f-f sand wet, <del>to</del> soft V Dark Brown Some vegetation	-
1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/14</u>
III.	Core ID: <u>295 (ponw)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>678520.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597040.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 295 (POMR)

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	F-c sand little silt trace shells	-
0.5 -		Dark Brown loose, wet Some vegetation	
1.0 -			
1.5 -			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/4/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>300 (panam)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>675706.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>595453.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/16 Date of Core Processing: 12/7/16

Core ID: 300 (parr)

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	clayey silt trace of sand very soft, wet dark brown	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>250</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>6590864</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>585926.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/16 Date of Core Processing: 12/7/16

Core ID: Z50

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	clayey silt trace + sand wet vs soft v Dark Brown	organic odor
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>246 (DUP-16)</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>Kill van Kull</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>659880.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>581677.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/16

Core ID: 246 (DUP-16)

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 -	0	clayey silt trace f sand wet v soft v dark brown	-
1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/14</u>
III.	Core ID: <u>260</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>661797.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586939.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/10/14 Date of Core Processing: 12/7/14

Core ID: 210

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 -	D	vf-f sand trace silt loose, wet dark brown little shells	—
1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>11/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/7/16</u>
III.	Core ID: <u>203</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662368.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587240.3</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 203

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5	0	silt and sand (fine) wet, soft v. dark brown trace shells	—
0.5			
1.0			
1.5			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/14</u>
III.	Core ID: <u>202</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662664.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586669.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 202

Person Responsible for Log: JEN

**Breathing Zone Action Levels:**

- For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.
- For total hydrocarbon levels > 25 ppm, stop work.
- For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 - 1.0 - 1.5 - 2.0	0	clayey silt trace sand wet v soft dark brown	strong organic odor

**Note:**  
Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>196</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662936.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587537.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JFM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/14 Date of Core Processing: 12/7/14

Core ID: 196

Person Responsible for Log: JFM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 - 1.0 - 1.5 - 2.0	0.1	silt + sand (f-c) trace shells loose, soft Dark brown	—

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>197</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662639.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588103.1</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>JEM</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/6/16 Date of Core Processing: 12/7/16

Core ID: 197

Person Responsible for Log: JEM

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5 - 1.0 - 1.5 - 2.0	0	F-M sand Some silt shells, stones trace brack fragments base, wet	—

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>204</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662067.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587805.4</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Lejuro</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/7/16 Date of Core Processing: 12/8/16

Core ID: 204

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 ←	0.6	dark brown f-c. sand, little silt little shell loose, wet	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>192</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner of bay</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663200.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588402.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z Leiturp</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE II SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/7/16 Date of Core Processing: 12/8/16

Core ID: 192

Person Responsible for Log: Z. Lisak

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown silt and fine to coarse sand, with shells, loose, wet	
0.5			
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>193</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>SW corner</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>662912.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588970.2</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/7/16 Date of Core Processing: 12/8/16

Core ID: 193

Person Responsible for Log: Z. Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0  -0.0-0.5'  0.5	0.0	dark fine to coarse sand (brown) some crushed sand sized shell fragments, trace silt wet, loose	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>188</u> (from Individual Core Collection Form)
IV.	Physical Description: _____ (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>663485.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>589266.8</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM  
NEWARK BAY PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 2)**

Date of Core Collection: 12/7/16 Date of Core Processing: 12/8/16

Core ID: 188

Person Responsible for Log: Z. Le. Jure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5'	0.0	dark brown f-c-sand, little silt, little shell fragments, little pebble sized shells wet, loose	
-			
1.0			
-			
1.5			
-			
2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>292</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>684056.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598833.9</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/2/16 Date of Core Processing: 12/8/16

Core ID: 292

Person Responsible for Log: Z. Lesore

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5 0.5	0.1	dark brown clayey silt + trace fine sand  wet, v. soft	
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

**CORE LITHOLOGY/DESCRIPTION FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 2)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>291</u> (from Individual Core Collection Form)
IV.	Physical Description: <u>NA</u> (from Core Collection Form)
V.	Coordinates: Coordinate Northing (ft, NAD 83): <u>684676.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599425.7</u> (from Individual Core Collection Form)
VI.	Name of Person Responsible for Log: <u>Z. Leisurr</u>

**CORE LITHOLOGY/DESCRIPTION FORM**  
**NEWARK BAY PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 2)

Date of Core Collection: 12/7/16 Date of Core Processing: 12/8/16

Core ID: 291

Person Responsible for Log: Z Leisure

**Breathing Zone Action Levels:**

For total hydrocarbon levels > 5 ppm, upgrade to Level C PPE.

For total hydrocarbon levels > 25 ppm, stop work.

For hydrogen sulfide levels > 5 ppm, stop work, evacuate work area, and ventilate.

Depth (Feet Below Sediment Surface in Core)	PID Screening (ppm)	Description	Engineer's/Geologist's Notes
0.0 - 0.0-0.5' 0.5	0.0	dark brown clayey silt, little fine sand wet, v. soft	
- 1.0 - 1.5 - 2.0			

**Note:**

Lithology depth intervals are recorded as directly read from the ruler or measuring tape in the sample processing lab.

## **Appendix G**

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>384</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678205.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598244.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.5</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>384</u> (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>678207.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598256.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.42</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>94</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.4</u></p> <p>Recovery (%) During Core Processing: <u>93</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

i.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
ii.	Date of Core Processing: <u>10/25/16</u>
iii.	Core ID: <u>385</u> (from Individual Core Collection Form)
iv.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>677797.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598788.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.5</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>385</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>677291.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598806.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Connor</u>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>385 (DUP)</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>6777714</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598813.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.25</u></p> <p>Recovery (%) During Core Processing: <u>83%</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>385 (DUP)</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>677758.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598832.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.75</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>386</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>677833.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597326.5</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>1</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>77</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>1.09</u> Recovery (%) During Core Processing: <u>84</u> Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>386</u> (from Individual Core Collection Form)
V.	<p>Secondary Core: <u>597363.2</u> <sup>10/15</sup> <u>677845.2</u></p> <p>Coordinate Northing (ft, NAD 83): <u>677845.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597677845.2</u> <sup>10/15</sup> <u>597363.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.3</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>8 10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>387</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>6775369</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>5979402</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.45</u></p> <p>Recovery (%) During Core Processing: <u>97</u></p> <p style="text-align: right;">Recovery (ft) During Core Processing - Gaps (ft)</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>387</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>677844.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597924.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.72</u></p> <p>Recovery (%) During Core Processing: <u>98</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>384</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>677220</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598580.54</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>386</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>677233.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>59858336</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>.75</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> <sup>no log</sup> <u>.75</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>.74</u></p> <p>Recovery (%) During Core Processing: <u>74</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Core (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>391</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676876.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597616.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>86</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.4</u></p> <p>Recovery (%) During Core Processing: <u>93</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>391</u> (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>676876.19</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597557.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.75</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>395</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676521.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596670.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.08</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.08</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.08</u></p> <p>Recovery (%) During Core Processing: <u>100%</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/29/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>395</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676521.11</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596521 1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.83</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.83</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.7</u></p> <p>Recovery (%) During Core Processing: <u>93</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>399</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>675855.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596325.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.58</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>95%</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.68</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 3)

I.	Date of Core Collection: <u>10/24/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/25/16</u>
III.	Core ID: <u>399</u> (from Individual Core Collection Form)
V.	Secondary Core: <u>NA</u> Coordinate Northing (ft, NAD 83): <u>675836.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>596351.3</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>NA</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>NA</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>NA</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>NA</u> Recovery (%) During Core Processing: <u>NA</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$
VI.	Name of Person Responsible for Log: <u>N. Corrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>409</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>673584.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597627.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.83</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.83</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.75</u></p> <p>Recovery (%) During Core Processing: <u>95</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

NC 10/22/11



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>408</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>673909.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596908.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.16</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>87.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.1</u></p> <p>Recovery (%) During Core Processing: <u>85</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>408</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.16</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>87.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.1</u></p> <p>Recovery (%) During Core Processing: <u>85</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

NC/10/26/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>407</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674234.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596304.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.42</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.25</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>88</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.15</u></p> <p>Recovery (%) During Core Processing: <u>80</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>407</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674231.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596314.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.42</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>94</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.35</u></p> <p>Recovery (%) During Core Processing: <u>90</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>406</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> <p>Coordinate Northing (ft, NAD 83): <u>674525.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>895798.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.7</u></p> <p>Recovery (%) During Core Processing: <u>97</u></p> <p style="text-align: right;">Recovery (ft) During Core Processing - Gaps (ft)</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>406</u> (from Individual Core Collection Form)
V.	<p><b>Secondary Core:</b></p> <p>Coordinate Northing (ft, NAD 83): <u>674530.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595728.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.41</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>94</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.43</u></p> <p>Recovery (%) During Core Processing: <u>95</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Corrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>405</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674251.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>5979545</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.5</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>405</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>67 4255.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>59 8000.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>86</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.33</u></p> <p>Recovery (%) During Core Processing: <u>88</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u> <small>26 10/26/18</small>
III.	Core ID: <u>405 404</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>674567.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597292.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.41</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>94</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.38</u></p> <p>Recovery (%) During Core Processing: <u>92</u></p> <p style="text-align: right;">Recovery (ft) During Core Processing - Gaps (ft)</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <del>405</del> <sup>2010/2011</sup> <u>404</u> (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>674564.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <del>67</del> <u>597281.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.66</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.66</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.7</u></p> <p>Recovery (%) During Core Processing: <u>100%</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>401</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674907.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598279.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>.92</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>92</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>.90</u></p> <p>Recovery (%) During Core Processing: <u>90</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/28/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>401</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674907.7</u> <u>674907.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598279.4</u> <u>598261.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.08</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.08</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.06</u></p> <p>Recovery (%) During Core Processing: <u>98</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>400</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>675570.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>896956.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>.91</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>91</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>.91</u></p> <p>Recovery (%) During Core Processing: <u>91</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>400</u> (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>675532.95</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596954.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>2.0</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: _____



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>397</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>675899.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597939.4</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>2.0</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>2.0</u> Recovery (%) During Core Processing: <u>100</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>397</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>675889.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597939.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.25</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>87</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.67</u></p> <p>Recovery (%) During Core Processing: <u>83</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>Ni Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>396</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>676375.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>597681.9</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>2.0</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>2.1</u> Recovery (%) During Core Processing: <u>100</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/25/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/26/16</u>
III.	Core ID: <u>396</u> (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>676378.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597688.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>87</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.63</u></p> <p>Recovery (%) During Core Processing: <u>81</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>A. Com</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>402</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674625.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598828.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.41</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>94</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.38</u></p> <p>Recovery (%) During Core Processing: <u>92</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>  <i>M. Conner</i>  </u>

*NC #10/27*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>394</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>675907.2</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599517.9</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>1.75</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>87</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>1.71</u> Recovery (%) During Core Processing: <u>85</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

N/C  
10/27



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>398</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>675574.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598600.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>0.66</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>0.66</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>0.63</u></p> <p>Recovery (%) During Core Processing: <u>95</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NC 10/27*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>393</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676233.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598905.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.3</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>W. Comrie</u>

*NC*  
*10/27*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>392</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676563.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598258.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.43</u></p> <p>Recovery (%) During Core Processing: <u>95</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>392</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676560.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598252.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.0</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.08</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Connor</u>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>392</u> (from Individual Core Collection Form)
IV.	<del>Primary Core:</del> <del>Coordinate Northing (ft, NAD 83):</del> <sup>10/27</sup> <u>676538.4</u> (from Individual Core Collection Form) <del>Coordinate Easting (ft, NAD 83):</del> <u>598257.8</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>1.25</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>93</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>1.25</u> Recovery (%) During Core Processing: <u>96</u>  $\text{Recovery (\%)} \text{ During Core Processing} = \frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Cornie</u>

MC 10/24



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>389</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>677192.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599384.0</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>20</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.91</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>95</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.9</u></p> <p>Recovery (%) During Core Processing: <u>95</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*10/27 NC*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>383</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678449.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597689.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.16</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.16</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.15</u></p> <p>Recovery (%) During Core Processing: <u>99</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comer</u>

*NC 10/27*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>403</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674868.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596593.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.91</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>95</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.90</u></p> <p>Recovery (%) During Core Processing: <u>95</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/26/12</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/12</u>
III.	Core ID: <u>403</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core: (DUP)</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674875.9 J<sup>N</sup> 11/9/12</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596594.5 J<sup>N</sup> 11/9/12</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.58</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comru</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>379</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>6083266.3</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599183.4</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>1.3</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>88</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>1.32</u> Recovery (%) During Core Processing: <u>88</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Combs</u>

*10/27 WC*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>375</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>684395.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599977.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.25</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>2.25</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <sup>NC</sup><u>10/27</u> <u>2.25</u> <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <sup>NC</sup><u>10/27</u> <u>10</u> <u>2.25</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>W. COMAR</u>

10/23  
NC



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/16</u>
III.	Core ID: <u>371</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>6860851</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599917.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>2.41</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>96</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>2.4</u></p> <p>Recovery (%) During Core Processing: <u>96</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>McCombe</u>

*NC*  
10/27



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/26/17</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/27/17</u>
III.	Core ID: <u>37D</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>686 523.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>606 761.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>0.83</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>83</u> (from individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>0.75</u></p> <p>Recovery (%) During Core Processing: <u>75</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<u>Secondary Core:</u> Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form) Actual Penetration (ft): _____ (from Individual Core Collection Form) Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form) Recovery (%) During Core Collection: _____ (from Individual Core Collection Form) Recovery (ft) During Core Processing: _____ Recovery (%) During Core Processing: _____ Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$
VI.	Name of Person Responsible for Log: <u>N. Comber</u>

10/27  
 NC



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>312</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>682657.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599161.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.28</u></p> <p>Recovery (%) During Core Processing: <u>98</u></p> <p style="text-align: right;">Recovery (ft) During Core Processing - Gaps (ft)</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>AS Comie</u>

*MC*  
10/28



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>311</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>682012.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600484.7</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>1.0</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>.83</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>83</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>.8</u> Recovery (%) During Core Processing: <u>80</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Conner</u>

10/28  
10



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>310</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>682344.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599811.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.25</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>93</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.23</u></p> <p>Recovery (%) During Core Processing: <u>94</u></p> <p style="text-align: right;">Recovery (ft) During Core Processing - Gaps (ft)</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

10/28/14



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>309</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>681667.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>661112.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>.91</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>68</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>.91</u></p> <p>Recovery (%) During Core Processing: <u>68</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Conner</u>

*NC*  
*12/10/22*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>313</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>682028.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>598880.9</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>1.91</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>1.91</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>1.92</u> Recovery (%) During Core Processing: <u>100</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

NK  
10/25



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>377</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>683907.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599531.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.0</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.0</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>377</u> (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>683803.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599520.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.5</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.6</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Come</u>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/19/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/23/16</u>
III.	Core ID: <u>377 (ms/msi)</u> (from Individual Core Collection Form)
IV.	<p><i>id/25</i> <del>Primary</del> Core: <u>683796.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Northing (ft, NAD 83): <del>683807.3</del> <u>683796.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <del>599531.4</del> <u>599509.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>2.0</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<u>Secondary Core:</u> Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form) Actual Penetration (ft): _____ (from Individual Core Collection Form) Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form) Recovery (%) During Core Collection: _____ (from Individual Core Collection Form) Recovery (ft) During Core Processing: _____ Recovery (%) During Core Processing: _____  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$
VI.	Name of Person Responsible for Log: <u>N. COMRE</u>

*N.C*  
*10/28*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>307</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>682910.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600177.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>1.6</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.6</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>100</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.65</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p>Secondary Core:</p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NC 10/22*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/14</u>
III.	Core ID: <u>309</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>682665.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600803.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>1.75</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>87</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>1.74</u></p> <p>Recovery (%) During Core Processing: <u>87</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>308</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>682655.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600806.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): <u>2.08</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: <u>2.0</u> (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: <u>96</u> (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: <u>2.0</u></p> <p>Recovery (%) During Core Processing: <u>100</u></p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Corne</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>378</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>6834171.1</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600088.5</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>1.3</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>1.25</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>93</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>1.2</u> Recovery (%) During Core Processing: <u>92</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. COMITE</u>

*NC 10/28*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>10/27/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>10/28/16</u>
III.	Core ID: <u>376</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>684147.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>600437.9</u> (from Individual Core Collection Form) Actual Penetration (ft): <u>2.0</u> (from Individual Core Collection Form) Recovery (ft) During Core Collection: <u>1.91</u> (from Individual Core Collection Form) Recovery (%) During Core Collection: <u>95</u> (from Individual Core Collection Form) Recovery (ft) During Core Processing: <u>1.9</u> Recovery (%) During Core Processing: <u>95</u>  Recovery (%) During Core Processing = $\frac{\text{Recovery (ft) During Core Processing - Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100$

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (ft): _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (%) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery (ft) During Core Processing: _____</p> <p>Recovery (%) During Core Processing: _____</p> <p>Recovery (%) During Core Processing = <math>\frac{\text{Recovery (ft) During Core Processing} - \text{Gaps (ft)}}{\text{Actual Penetration (ft)}} \times 100</math></p>
VI.	Name of Person Responsible for Log: <u>N. Connor</u>

10/28  
M



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>372</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>685256.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>601218.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

JH 11/2/16

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Zach Leisure</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>374</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> <p>Coordinate Northing (ft, NAD 83): <u>684867.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600814.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>      Z. Lesiak      </u>

2L 1/2/18



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>373</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>685478.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599551.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>X</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Laidone</u>

2L 11/2/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>325</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>679403.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600457.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>26</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>26</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Zach Leisure</u>

ZL      11/2/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>324</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>679704.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600141.0</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Lerner</u>

ZL 11/2/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>323</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680028.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599476.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>25</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>25</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Zach Leisure</u>

ZL 1/2



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>322</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680378.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598879.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>27</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>27</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Zach Laisure</u>

ZL 1/2



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>321</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>681075.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597297.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>27"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>27"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: _____

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**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>320</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680029.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>601135.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>23</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conrie</u>

*Mc 11/2*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>319</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680360.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600470.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>25</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>25</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Zach Leisue</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/10</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/10</u>
III.	Core ID: <u>318</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680691.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599810.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>25</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Nick Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>317</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>681176.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>599069.5</u> (from Individual Core Collection Form) Actual Penetration (in): <u>29</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u><del>28.15</del> <sup>AC</sup> (30 in)</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) *Acceptable Recovery $\geq$ 9 inches

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>317</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>681171.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599067.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>23</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>681159.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599064.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>23.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Cornie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>314</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680689.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>601465.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>27</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>23.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Nick Canise</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>315</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>681348.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600146.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u><del>2.3</del> 28</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>25</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Nick Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/1/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/2/16</u>
III.	Core ID: <u>314</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>681678.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599478.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>2.58</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>2.41</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Nick Carrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>338</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>675050.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593266.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>yes</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Corrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>344</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> Coordinate Northing (ft, NAD 83): <u>673895.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>593019.2</u> (from Individual Core Collection Form) Actual Penetration (in): <u>16</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>yes</u> (from Individual Core Collection Form) <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>349</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>672808.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>592459.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>yes</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>349 (Dup)</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>572818.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>592461.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>11</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches. <u>NO 11/3</u></p>
VI.	Name of Person Responsible for Log: <u>N. Comer</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>354</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>571841.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>592969.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Com</u>

20/11/3



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>350</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>672581.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593398.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>9</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>9</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>NC</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>339</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674084.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593750.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>21</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>21</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>379</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674090.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593752.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>674098.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593758.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Corne</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>345</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>673292.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593544.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>19</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD)</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Corne</u>

*AC*  
*11/24*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>310</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>673422.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595507.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Com</u>

11B  
10A



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/14</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/14</u>
III.	Core ID: <u>335</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676961.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595255.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Comre</u>

*W/C*  
*11/3*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>336</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>676435.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595137.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>337</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>675774.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>594806.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>M. Comrie</u>

10/8



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>330</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>679502.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596728.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*Handwritten signature/initials*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>333</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>6790990</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596553.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>V. Connor</u>

*MC 11/3*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>334</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678367.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596209.0</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Conner</u>

*W. Conner*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/2/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/3/16</u>
III.	Core ID: <u>390</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>677174.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596987.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comre</u>

*OC*  
*10/13*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>332</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678050.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599288.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>M. Connor</u>

*1/14*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>331</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678376.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599483.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>A. Condit</u>

*Mc 1/4*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>382</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678819.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>578276.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*11/4 NE*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>381</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>672158.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598030.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>19</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Comar</u>

*NE 1/4*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>329</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678766.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>600346.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>M. Comrie</u>

*MC 11/4*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>328</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>679048.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599833.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>A. Collins</u>

*NC 114*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>327 (DUP-11)</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>6796802</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599213.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>416.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>327</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>679694.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599223.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p> <p><i>nc 11/4</i></p>
VI.	Name of Person Responsible for Log: <u>N. Cornick</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>380</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>679955.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598427.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>19.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Condit</u>

*MC 11/9*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>326 (MS/MSD)</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680676.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597286.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/4/16</u>
III.	Core ID: <u>326</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680691.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597291.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>680714.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597286.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/3/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/14/16</u>
III.	Core ID: <u>341</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>673089.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596271.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>A. Comel</u>

*MSC*  
*11/14*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>342</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>672475.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597379.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*MC 11/13*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>343</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>672411.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597845.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>21"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p style="text-align: right; margin-right: 50px;">ZL 11/8/16</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>346</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>67 2632.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595222.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log <u>D. Conner</u>

*one 11/7*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>347</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>672336.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595976.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Come</u>

*NC 11/8*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>348</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>67207.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596769.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N Comre</u>

*MC 11/4*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>351</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>671828.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>594923.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*MC*  
*11/8*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>353</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>67218.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>596454.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>V. Comrie</u>

*MS 11/8*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>355</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>671024.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>594626.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>5.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z Leisure</u>

ZL 11/8/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>356</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>670733.65</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595335.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Connor</u>

*ME 11/8*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>1/8/2016</u>
III.	Core ID: <u>357</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>669933.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595023.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16 ft 11/5/17</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p><small>*Acceptable Recovery ≥ 9 inches</small></p> <p style="text-align: right; margin-right: 50px;"><u>NC 11/8/16</u></p>





**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/7/12</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/8/16</u>
III.	Core ID: <u>358</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>667416.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593993.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>M. Conic</u>

*NC 11/8/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>182</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>664346.5</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588990.4</u> (from Individual Core Collection Form) Actual Penetration (in): <u>18</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) *Acceptable Recovery $\geq$ 9 inches

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>182</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664326.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588981.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664311.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588967.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>181</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664645.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588425.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conner</u>

*NC 11/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>180</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664943.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587860.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14.5</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Cornie</u>

*N/C  
11/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>179</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>665482.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587413.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>M. Comrie</u>

*MC 11/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>368</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663075.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>591332.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>21</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>23 21<sup>in</sup> 11/10/16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NC 11/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>366</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>665458.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>592316.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12.5</u> <sup>13</sup> <sub>11/10/16</sub> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>M. Conrie</u>

*MC 11/19*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>365</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>666175.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>592622.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Corrie</u>

*N.C. 11/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>362</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>667833.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593317.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>19</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>19.5</u> <sup>11/10/16</sup> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NC*  
 11/10/14  
 3/2



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>359</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> <p>Coordinate Northing (ft, NAD 83): <u>669450.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>594436.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12.5</u> <sup>13.5"</sup> <sup>11/10/16</sup> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*N.C. 11/9*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>361</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>668334.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>594386.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*M/C 11/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>360</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>668618.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593646.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*N. Comrie 11/10/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>363</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>667538.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>594070.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>363</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>6675108</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>594084.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p> <p align="right"><i>NC 410</i></p>
VI.	Name of Person Responsible for Log: <u>N. Comie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>364</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>667094.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>593675.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>    Z. L. Jones    </u>

*ZL 11/10/18*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>183</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664940.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586443.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>    ZL    11/10/16    </u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/9/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/10/16</u>
III.	Core ID: <u>184</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>665045.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586859.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u> <u>11/10/10</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>206</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662985.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584658.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15.4</u> <sup>11/11/16</sup> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u> <u>11/11/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>199</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663460.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584943.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>NiComre</u>

*NE 11/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>200</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663374.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585718.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17 18 J<sup>th</sup> 11/11/16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>NiComrie</u>

*MC 11/11*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>194</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663527.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586392.0</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>194</u> (from Individual Core Collection Form)
V.	<p>Secondary Core (for Field Duplicate or MS/MSD): <u>19.4</u> <sup>JK 11/11/16</sup></p> <p>Coordinate Northing (ft, NAD 83): <u>663527.2</u> <sup>JK 11/11/16</sup> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586392.8</u> <sup>JK 11/11/16</sup> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p>Tertiary Core (for MS/MSD): <u>08.4</u> <sup>JK 11/11/16</sup></p> <p>Coordinate Northing (ft, NAD 83): <u>663519.4</u> <sup>JK 11/11/16</sup> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586395.2</u> <sup>JK 11/11/16</sup> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/10</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/10</u>
III.	Core ID: <u>190</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <sup>664101.4</sup> <del>663527.2</del> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <del>586392.0</del> <sup>586693.7</sup> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Corne</u>

*NC 11/11*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>189</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664397.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586121.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*N.C. 1/11*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>201</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662953.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586098.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*N.C. 11/11*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>195</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663229.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586964.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Cormie</u>

*N. Cormie*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>191</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663805.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587257.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>47.5 17.5*</u> <sup>11/11/16</sup> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>191</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663807.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587270.0</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14.5 = 15.5<sup>th</sup> 11/11/16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p> <p align="center"><u>NC 11/11</u></p>
VI.	Name of Person Responsible for Log: <u>N. Comeri</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>187</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663778.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588779.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>2. Levine</u> <u>11/1/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>186</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664074.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588133.0</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p style="text-align: right; margin-right: 50px;">ZL 11/11/16</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u> <u>11/11/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/10/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/11/16</u>
III.	Core ID: <u>185</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>664373.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587561.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Latur</u> <u>11/11/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/15/16</u>
III.	Core ID: <u>211</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661572.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587417.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>9.5" 10" 11/15/16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p style="text-align: right; margin-right: 50px;">MGS WEA</p>
VI.	Name of Person Responsible for Log: <u>Max H Goldstein 11/15/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/15/16</u>
III.	Core ID: <u>213</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662412.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584365.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12.13<sup>in</sup> 11/15/16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p style="text-align: right;"><i>MKG/MSB</i></p>
VI.	Name of Person Responsible for Log: <u>Mr Goldstein</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/15/16</u>
III.	Core ID: <u>207</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662686.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585230.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/15/06</u> (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Max H. Goldsper</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/14/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/15/16</u>
III.	Core ID: <u>205</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661859.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588265.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>9"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Max H. Goldstein</u>

MAG 11/15/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16</u>
III.	Core ID: <u>217</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661324.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586653.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>11"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z Ledone 11/17/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16</u>
III.	Core ID: <u>221</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661312.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585199.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisure</u> <u>11/17/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/17 5<sup>#11/17/16</sup></u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/17 5<sup>#11/17/16</sup></u>
III.	Core ID: <u>225</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661165.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584345.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12.5" 13" 5<sup>#11/17/16</sup></u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/16/17</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/17</u>
III.	Core ID: <u>225</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661171.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584341.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>21</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>19"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p> <p style="text-align: right;"><i>22 11/17/16</i></p>
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16</u>
III.	Core ID: <u>224</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661311.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583764.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/16/17</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/17</u>
III.	Core ID: <u>224</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u> <sup>11/17/16</sup></p> <p>Coordinate Northing (ft, NAD 83): <del>661305.0</del> <u>661319.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583759.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>8.5" 9"</u> <sup>11/17/16</sup> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661306.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583760.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Lewis</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/16</u> <sup>11/17/16</sup> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16</u> <sup>11/17/16</sup>
III.	Core ID: <u>220</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>661545.0</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>584641.7</u> (from Individual Core Collection Form) Actual Penetration (in): <u>18</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>16"</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>X</u> (from Individual Core Collection Form) *Acceptable Recovery ≥ 9 inches

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisue 11/17/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/17<sup>16</sup> J<sup>#</sup> 11/17/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/17<sup>16</sup> J<sup>#</sup> 11/17/16</u>
III.	Core ID: <u>215</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661815.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585506.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Zalesore 1V1716</u>

*Zalesore 1V1716*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16</u>
III.	Core ID: <u>216</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661916.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585959.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>11</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u> <u>11/17/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/16/16<sup># 11/16</sup></u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/17/16<sup># 11/16</sup></u>
III.	Core ID: <u>209</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u><del>661324.1</del> <sup># 11/16</sup> 66088.7</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u><del>586653.8</del> 586373.4</u> (from Individual Core Collection Form) Actual Penetration (in): <u>18</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) *Acceptable Recovery $\geq$ 9 inches

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Leasure</u> <u>11/17/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/17/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/18/16</u>
III.	Core ID: <u>231</u> (from Individual Core Collection Form)
IV.	<u>Primary Core:</u> Coordinate Northing (ft, NAD 83): <u>658917.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587174.1</u> (from Individual Core Collection Form) Actual Penetration (in): <u>18</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>13.5</u> <sup>14</sup> <del>14</del> <sup>11/18/16</sup> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) *Acceptable Recovery ≥ 9 inches

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p> <p style="text-align: right;"><i>ZL 11/15/12</i></p>
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u> <u>11/18/11</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>11/17/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/18/16</u>
III.	Core ID: <u>226</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>6589344</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587775.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>11"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Z. Leisner</u> <u>11/18/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/17/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/18/16</u>
III.	Core ID: <u>227</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>658120.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>589525.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>X</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p style="text-align: right;"><i>2x 11/18/16</i></p>
VI.	Name of Person Responsible for Log: <u>Z. Leigwe 11/18/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/17/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/18/16</u>
III.	Core ID: <u>233</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>658320.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588035.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p style="text-align: right;"><i>ZL</i> 11/18/16</p>
VI.	Name of Person Responsible for Log: <u>Z. Lejtwe</u> <u>11/18/16</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/01/16</u> <sup>11/30/16 3H 11/18/17</sup> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>11/01/16</u>
III.	Core ID: <u>249</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659071.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584389.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16" 18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <sup>NC</sup> <u>16" - 17" 16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: _____

*MC 12/1/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/01/16</u>
III.	Core ID: <u>238</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659536.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584316.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>7.5</u> <sup>12/1/16</sup> <u>9</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/01/16</u>
III.	Core ID: <u>238</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659539.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584323.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659558.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584314.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>11</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. H. [Signature]</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/01/16</u>
III.	Core ID: <u>237</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>660005.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583755.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Comrie</u>

*W.C.*  
 4/1/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1/16</u>
III.	Core ID: <u>247</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659429.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583125.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

NC  
 2/11/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/01/16</u>
III.	Core ID: <u>236</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>660024.24</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583161.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Comrie</u>

*W.C. 12/1/14*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>11/30/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/1/16</u>
III.	Core ID: <u>248</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659184.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584068.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>NS</u> <u>10</u> <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conner</u>

*MC 12/1/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/1/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/2/16</u>
III.	Core ID: <u>289</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>686886.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>601904.6</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NC*  
12/2/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/1/10</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/2/10</u>
III.	Core ID: <u>290</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>665909.6</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>60146.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>19</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NC 12/2/14*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>12/09/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>232</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>55522.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587262.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches <math>\rightarrow</math> OK because ponar, not core</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conn</u>

*N. Conn*  
*12/14/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>242</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>658522.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586412.5</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches <math>\rightarrow</math> OK, Penar</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comne</u>

NC  
1/4/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>241</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> Coordinate Northing (ft, NAD 83): <u>658636.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>586004.5</u> (from Individual Core Collection Form) Actual Penetration (in): <u>6"</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>6"</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) *Acceptable Recovery $\geq$ 9 inches <u>Ponar</u>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Connor</u>

12/6/16  
 LC



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/14</u>
III.	Core ID: <u>230</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>660022.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584608.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches <u>Ponar</u></p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Corne</u>

*NC  
12/6/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>239</u> (from Individual Core Collection Form)
IV.	<p>Primary Core:</p> <p>Coordinate Northing (ft, NAD 83): <u>659615.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585227.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>YES</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>John M. Richardson</u>

CB 12/6



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>234</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>658053.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588323</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>9'</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>YES</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>234</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>658041.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588324.0</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>25</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>N/A 25"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>YES</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Cynthia M. Buchanan</u> <span style="float: right;"><u>CB</u></span>

12/05



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/05/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/06/2016</u>
III.	Core ID: <u>245</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>660934.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>580580.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Yes</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>Garth M. Dickman</u> <div style="float: right; text-align: right;">           CB            .215         </div>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>235</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>66114.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>581455.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>22"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conrite</u>

*N/C 12/6/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>228</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661526.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>581778.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>228</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661527.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>581789.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661527.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>581799.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Connie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>222</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661834.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>582699.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conrath</u>

MC 146



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>212</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662534.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583574.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Brown</u>

*OK 12/6*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/14</u>
III.	Core ID: <u>218</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661955.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583525.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Cornen</u>

*01/12/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>223</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661569.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>583193.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>29</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>23</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. C. ...</u>

*WC 12/6*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>229</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661147.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>582910.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>24</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>23</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conn</u>

12/10  
 HC



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>219</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> <p>Coordinate Northing (ft, NAD 83): <u>661891.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584061.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>19</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comore</u>

*NC 12/6*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>214</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662110.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>584932.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>20</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>20</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>M. Connor</u>

M. Connor



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/5/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/6/16</u>
III.	Core ID: <u>208</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662390.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585801.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>20</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>19</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Cornman</u>

*NSC*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>367</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>563858.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>591680.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>13</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comra</u>

*N. Comra*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>369</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659629.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>590892.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Coman</u>

NC 12/12



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/2016</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>244</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>657742.9</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588338.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comm</u>

NC 12/7/16



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>243</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> Coordinate Northing (ft, NAD 83): <u>657744.9</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>587742.7</u> (from Individual Core Collection Form) Actual Penetration (in): <u>18</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>12</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*12/7*  
*N/C*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>242 252 J#12/7/16</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>657526.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>5869905</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NE 12/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/2/16</u>
III.	Core ID: <u>251</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>657795.0</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586490.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>251</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>657795.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586504.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>657794.8</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586480.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>9</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/14</u>
III.	Core ID: <u>293</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>682462.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598021.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>6"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches <span style="margin-left: 100px;"><u>OK because ponar</u></span></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Coan</u>

*NC 12/16*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>294</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>679168.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597350.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>5"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>5"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches <u>OK because ponar</u></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. O. M. 2</u>

12/12/07



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>295</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>678520.3</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>597040.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>4.5"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>4.5"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery ≥ 9 inches <u>ok because ponar</u></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Annic</u>

*NC. 12/17*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>300</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>675706.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>595453.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>5"</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>5"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches <u>ok because ponar</u></p>

**SAMPLE PROCESSING FORM**  
**PHASE II/ SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>W. Cornejo</u>

*NC 12/7*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>250</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659086.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>585926.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>17</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p align="right">JH 5/27/16</p>
VI.	Name of Person Responsible for Log: <u>J. Hegarty</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>246</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> Coordinate Northing (ft, NAD 83): <u>659880.8</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>581677.1</u> (from Individual Core Collection Form) Actual Penetration (in): <u>18</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>16.175<sup>ft</sup> 12/7/16</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>246</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): <u>659885.7</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>581667.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>D. Compe</u>

*MLC 12/7*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>210</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>661797.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586939.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>10'</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*NC 12/7*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>203</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662368.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587240.3</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>16</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Conner</u>

*12/7*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>202</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662664.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>586669.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comm</u>

*N.C. 12/10*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>196</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662936.4</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587537.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>15"</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Corrie</u>

*NIC 12/17*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/6/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/7/16</u>
III.	Core ID: <u>197</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662639.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588103.1</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>14</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM  
 PHASE III SEDIMENT INVESTIGATION  
 (Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

*MC 12/18*



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>204</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>662067.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>587805.4</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>9</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Comrie</u>

12/8



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>192</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663200.5</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>588402.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>9</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Connor</u>

12/8/02



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>193</u> (from Individual Core Collection Form)
IV.	<p><b>Primary Core:</b></p> Coordinate Northing (ft, NAD 83): <u>662912.4</u> (from Individual Core Collection Form) Coordinate Easting (ft, NAD 83): <u>588970.2</u> (from Individual Core Collection Form) Actual Penetration (in): <u>12</u> (from Individual Core Collection Form) Recovery (in) During Core Collection: <u>9</u> (from Individual Core Collection Form) Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form) *Acceptable Recovery $\geq$ 9 inches

**SAMPLE PROCESSING FORM  
PHASE III SEDIMENT INVESTIGATION  
(Sheet 2 of 3)**

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p>
VI.	Name of Person Responsible for Log: <u>N. Cornell</u>

12/8 NC



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>188</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>663485.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>589266.8</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>11</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches</p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>188</u> (from Individual Core Collection Form)
V.	<p><u>Secondary Core</u> (for Field Duplicate or MS/MSD):</p> <p>Coordinate Northing (ft, NAD 83): <u>663499.2</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>589268.2</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>18</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>12</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches</p> <p><u>Tertiary Core</u> (for MS/MSD):</p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery ≥ 9 inches.</p> <p style="text-align: right; margin-right: 50px;"><i>NC 12/8</i></p>
VI.	Name of Person Responsible for Log: <u>NiComen</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>292</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>684056.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>598833.9</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>6</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>6</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches <u>OK because ponar</u></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

i.	Date of Core Collection: _____ (from Individual Core Collection Form)
ii.	Date of Core Processing: _____
iii.	Core ID: _____ (from Individual Core Collection Form)
V.	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p align="right">JH 12/18/16</p>
VI.	Name of Person Responsible for Log: <u>J. Haggarty</u>



**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
(Sheet 1 of 3)

I.	Date of Core Collection: <u>12/7/16</u> (from Individual Core Collection Form)
II.	Date of Core Processing: <u>12/8/16</u>
III.	Core ID: <u>291</u> (from Individual Core Collection Form)
IV.	<p><u>Primary Core:</u></p> <p>Coordinate Northing (ft, NAD 83): <u>684676.1</u> (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): <u>599425.7</u> (from Individual Core Collection Form)</p> <p>Actual Penetration (in): <u>6</u> (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: <u>6</u> (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: <u>Y</u> (from Individual Core Collection Form)</p> <p>*Acceptable Recovery <math>\geq</math> 9 inches <u>OK because ponar</u></p>

**SAMPLE PROCESSING FORM**  
**PHASE III SEDIMENT INVESTIGATION**  
 (Sheet 2 of 3)

I.	Date of Core Collection: _____ (from Individual Core Collection Form)
II.	Date of Core Processing: _____
III.	Core ID: _____ (from Individual Core Collection Form)
V	<p><u>Secondary Core (for Field Duplicate or MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches</p> <p><u>Tertiary Core (for MS/MSD):</u></p> <p>Coordinate Northing (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Coordinate Easting (ft, NAD 83): _____ (from Individual Core Collection Form)</p> <p>Actual Penetration (in): _____ (from Individual Core Collection Form)</p> <p>Recovery (in) During Core Collection: _____ (from Individual Core Collection Form)</p> <p>Recovery Acceptable (Y or N)*: _____ (from Individual Core Collection Form)</p> <p>*Acceptable recovery <math>\geq</math> 9 inches.</p> <p align="right">JH 12/8/16</p>
VI.	Name of Person Responsible for Log: <u>J. Hagarty</u>



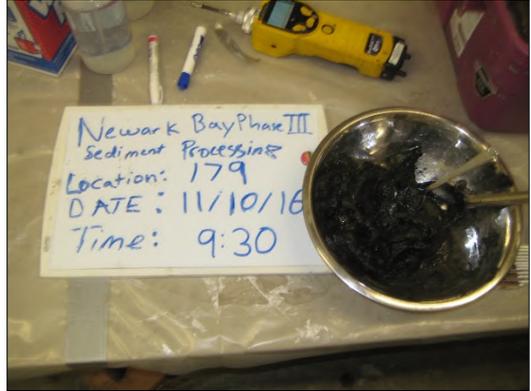
## **Appendix H**

Location ID: 179  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample

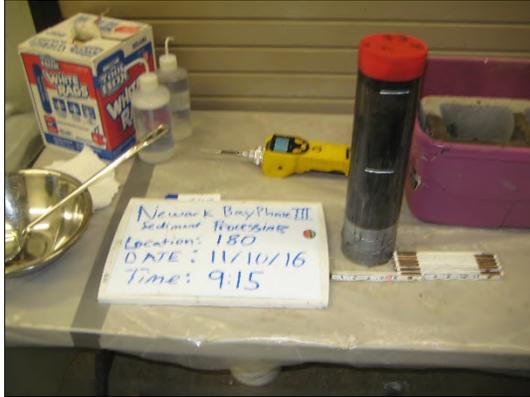


Post-Mixing Sediment Sample



Location ID: 180  
Date Collected: 11/09/16  
Date Processed: 11/10/16

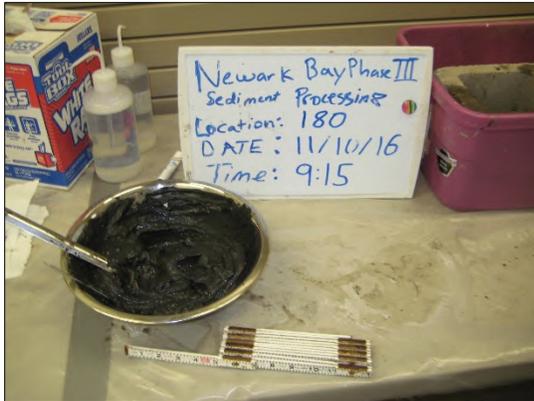
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 181  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 182  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 183  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample

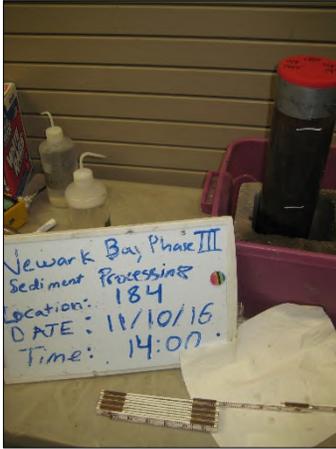


Post-Mixing Sediment Sample



Location ID: 184  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 185  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 186  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 187  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 188  
Date Collected: 12/07/16  
Date Processed: 12/08/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 189  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 190  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 191  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 192  
Date Collected: 12/07/16  
Date Processed: 12/08/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 193  
Date Collected: 12/07/16  
Date Processed: 12/08/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 194  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Cores Before Processing



Pre-Mixing Sediment Sample

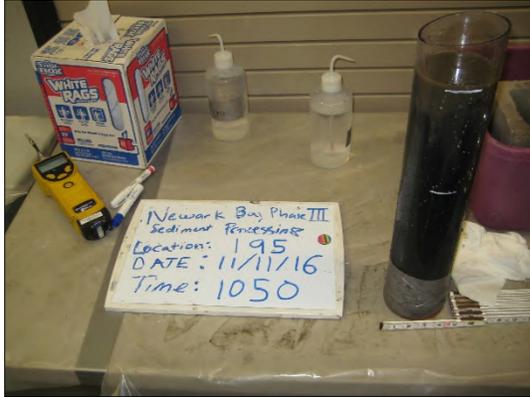


Post-Mixing Sediment Sample



Location ID: 195  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

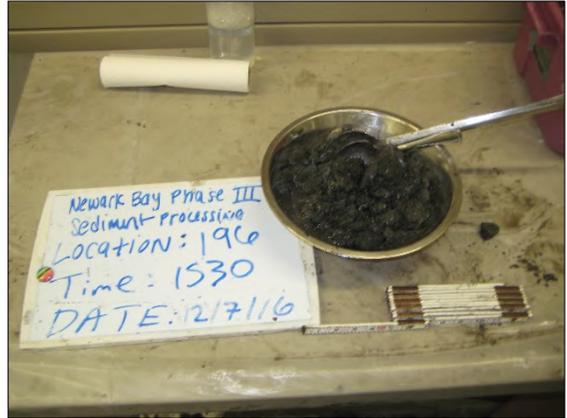


Location ID: 196  
Date Collected: 12/06/16  
Date Processed: 12/07/16

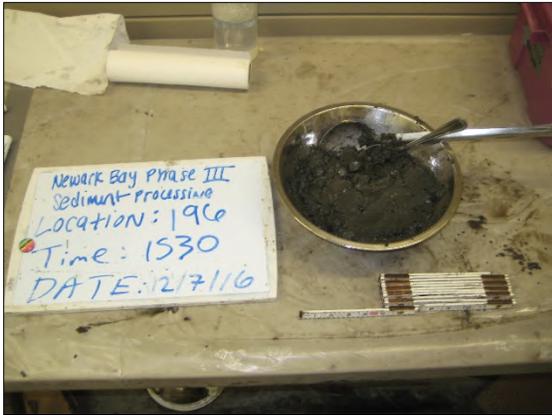
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

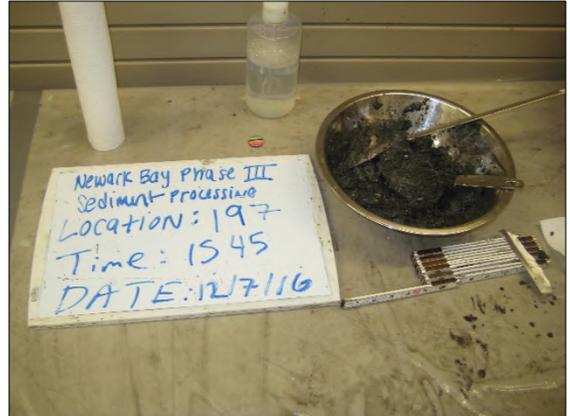


Location ID: 197  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 199  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample

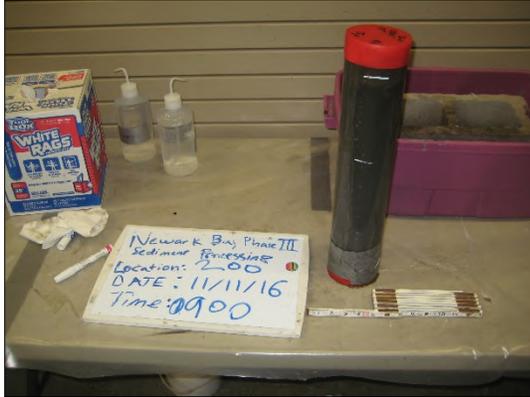


Post-Mixing Sediment Sample



Location ID: 200  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample

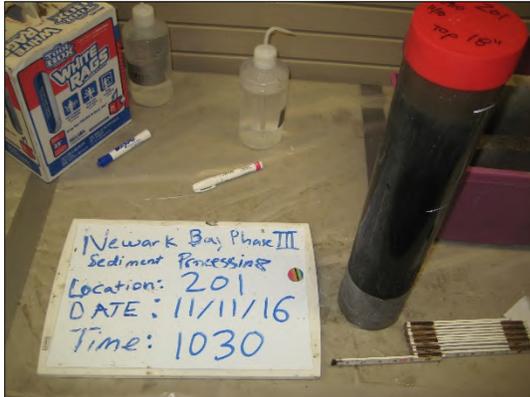


Post-Mixing Sediment Sample



Location ID: 201  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

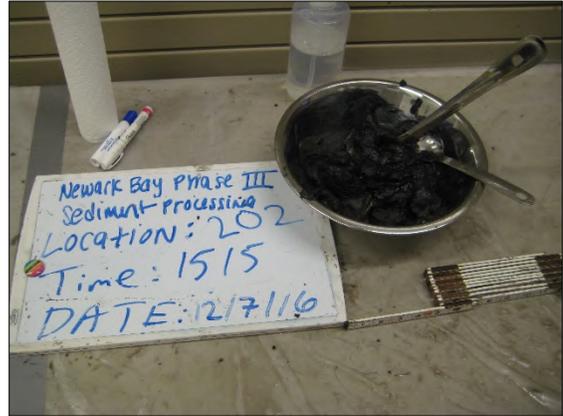


Location ID: 202  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 203  
Date Collected: 12/06/16  
Date Processed: 12/07/16

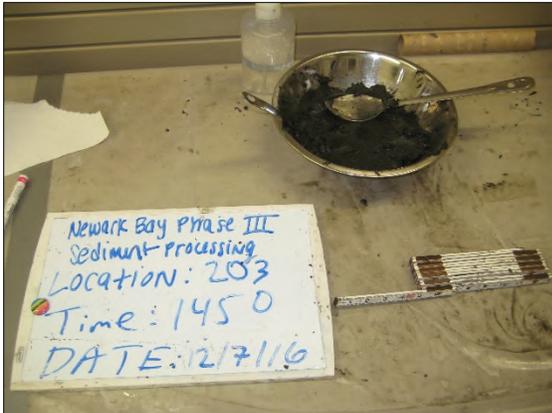
Core Before Processing



Pre-Mixing Sediment Sample

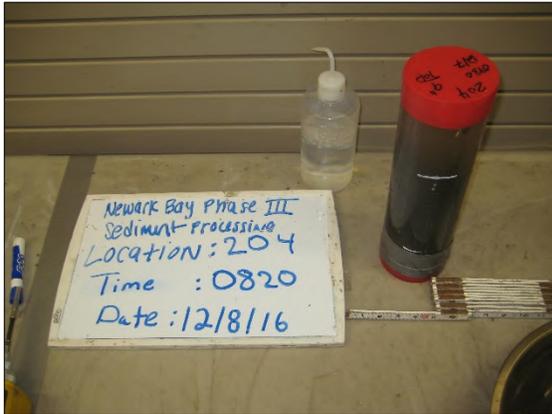


Post-Mixing Sediment Sample



Location ID: 204  
Date Collected: 12/07/16  
Date Processed: 12/08/16

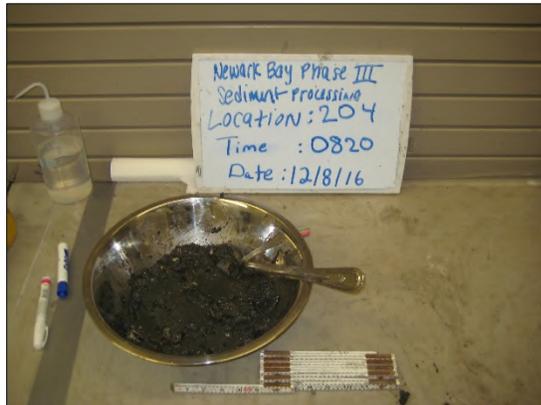
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 205  
Date Collected: 11/14/16  
Date Processed: 11/15/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 206  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Core Before Processing



Pre-Mixing Sediment Sample

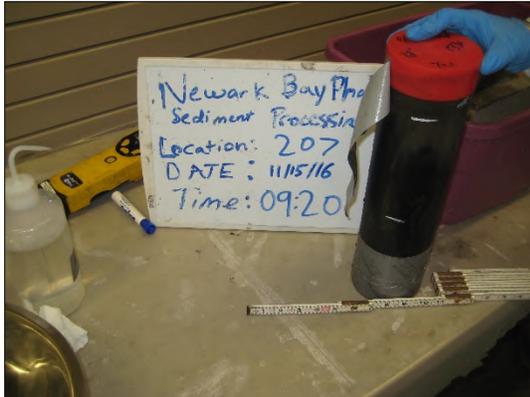


Post-Mixing Sediment Sample



Location ID: 207  
Date Collected: 11/14/16  
Date Processed: 11/15/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 208  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Cores Before Processing



Pre-Mixing Sediment Sample

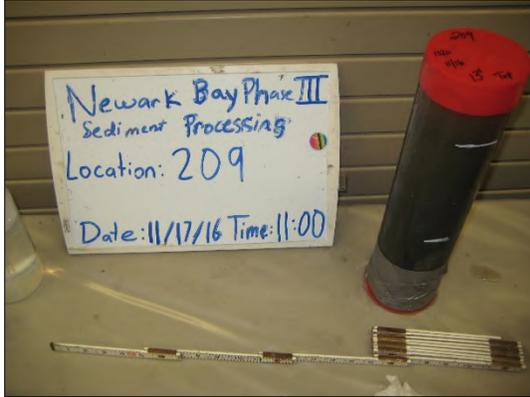


Post-Mixing Sediment Sample



Location ID: 209  
Date Collected: 11/16/16  
Date Processed: 11/17/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 210  
Date Collected: 12/06/16  
Date Processed: 12/07/16

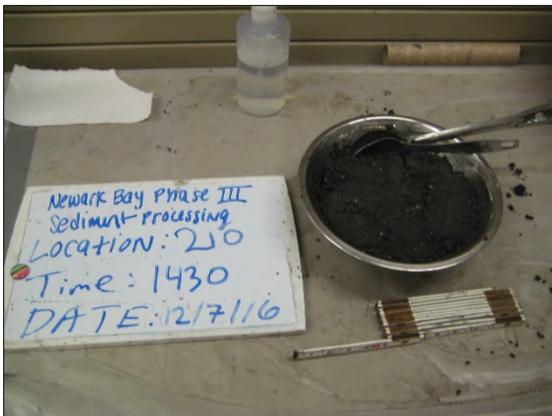
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 211  
Date Collected: 11/14/16  
Date Processed: 11/15/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 212  
Date Collected: 12/05/16  
Date Processed: 12/06/16

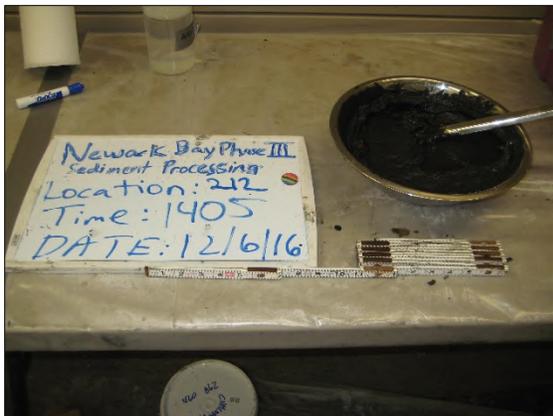
Core Before Processing



Pre-Mixing Sediment Sample

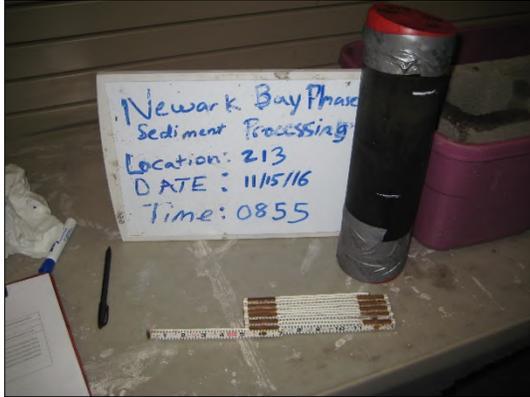


Post-Mixing Sediment Sample



Location ID: 213  
Date Collected: 11/14/16  
Date Processed: 11/15/16

Core Before Processing



Pre-Mixing Sediment Sample

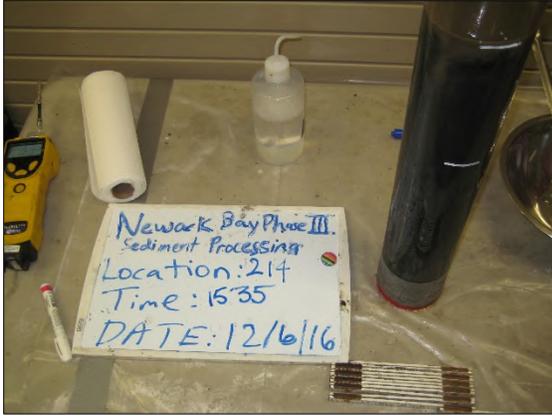


Post-Mixing Sediment Sample



Location ID: 214  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Core Before Processing



Pre-Mixing Sediment Sample

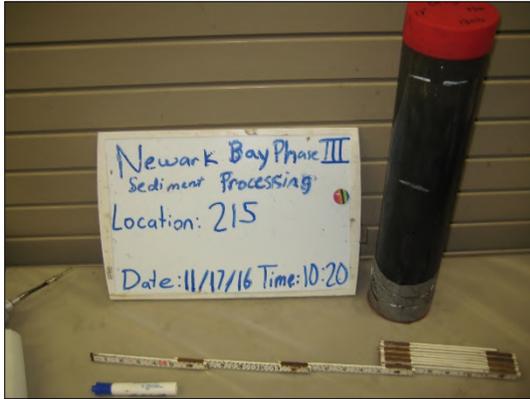


Post-Mixing Sediment Sample



Location ID: 215  
Date Collected: 11/16/16  
Date Processed: 11/17/16

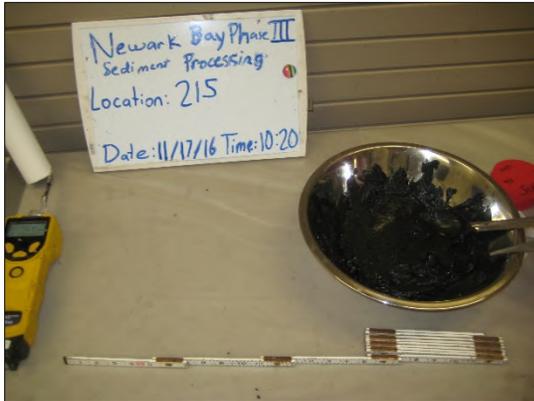
Core Before Processing



Pre-Mixing Sediment Sample

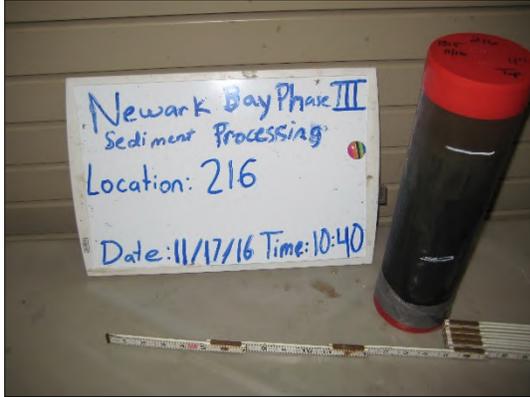


Post-Mixing Sediment Sample



Location ID: 216  
Date Collected: 11/16/16  
Date Processed: 11/17/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 217  
Date Collected: 11/16/16  
Date Processed: 11/17/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 218  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Core Before Processing



Pre-Mixing Sediment Sample

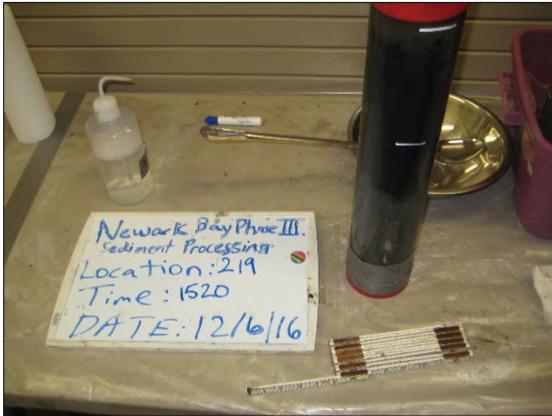


Post-Mixing Sediment Sample



Location ID: 219  
Date Collected: 12/05/16  
Date Processed: 12/06/16

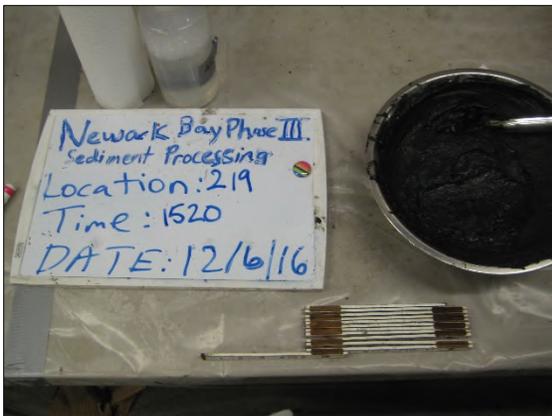
Core Before Processing



Pre-Mixing Sediment Sample

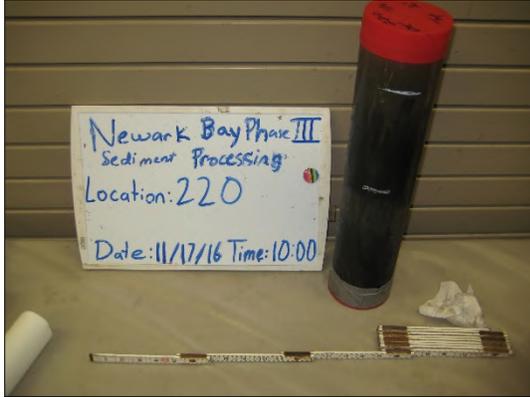


Post-Mixing Sediment Sample



Location ID: 220  
Date Collected: 11/16/16  
Date Processed: 11/17/16

Core Before Processing



Pre-Mixing Sediment Sample

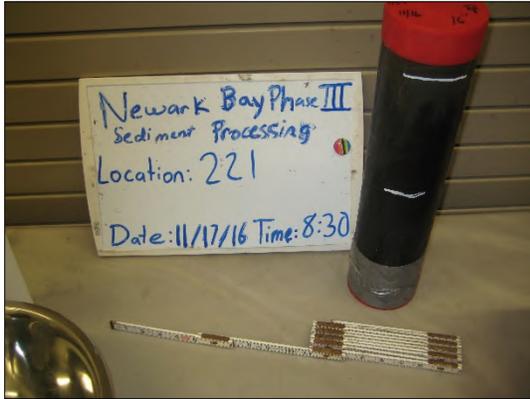


Post-Mixing Sediment Sample



Location ID: 221  
Date Collected: 11/16/16  
Date Processed: 11/17/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

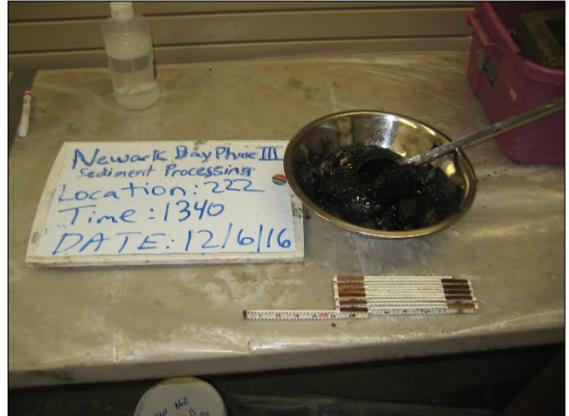


Location ID: 222  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 223  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 224  
Date Collected: 11/16/16  
Date Processed: 11/17/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 225  
Date Collected: 11/16/16  
Date Processed: 11/17/16

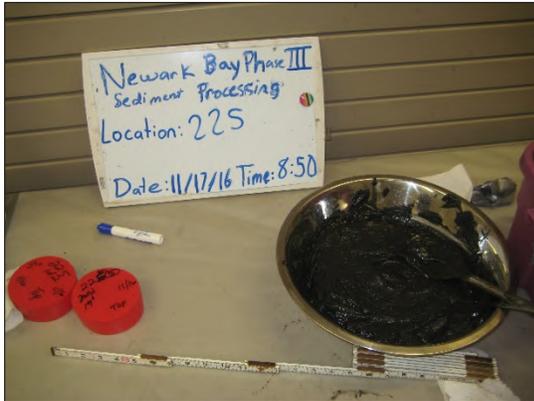
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 226  
Date Collected: 11/17/16  
Date Processed: 11/18/16

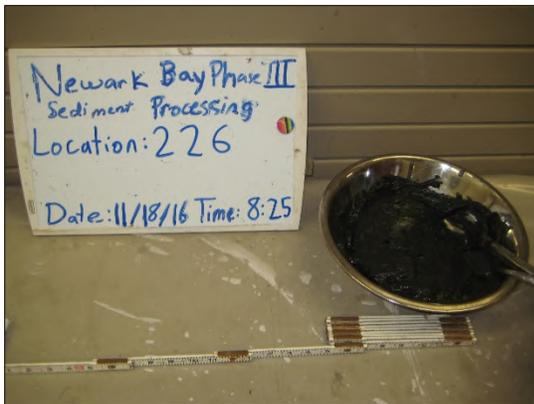
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 227  
Date Collected: 11/17/16  
Date Processed: 11/18/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 228  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 229  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 230  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Pre-Mixing Sediment Sample

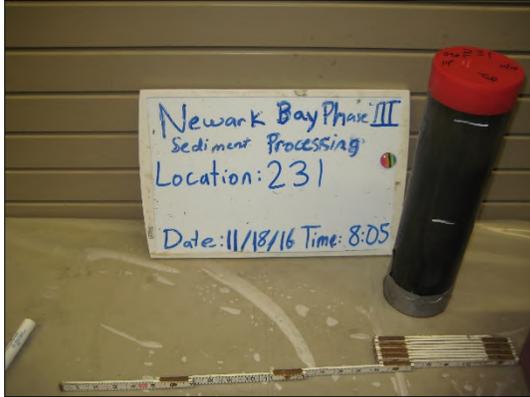


Post-Mixing Sediment Sample



Location ID: 231  
Date Collected: 11/17/16  
Date Processed: 11/18/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 232  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

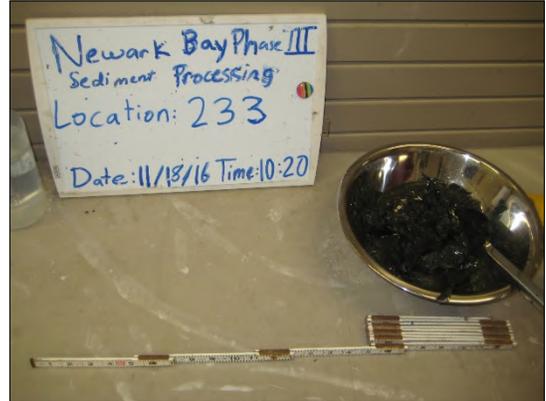


Location ID: 233  
Date Collected: 11/17/16  
Date Processed: 11/18/16

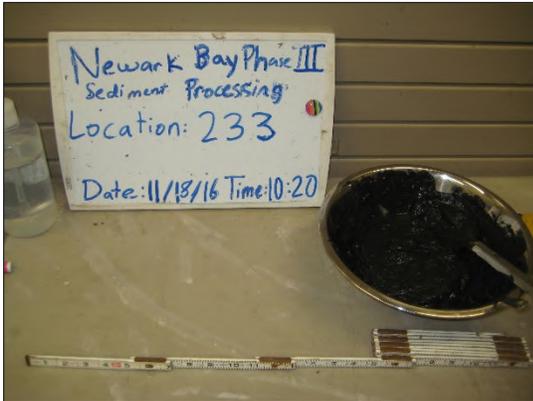
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

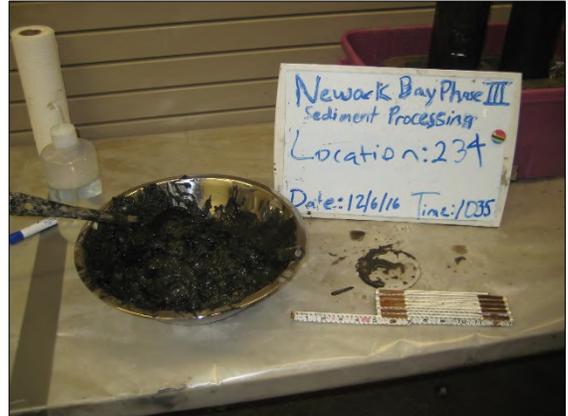


Location ID: 234  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 235  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

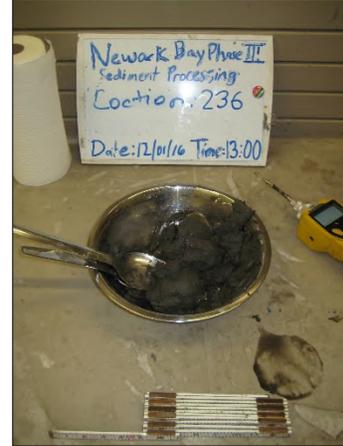


Location ID: 236  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

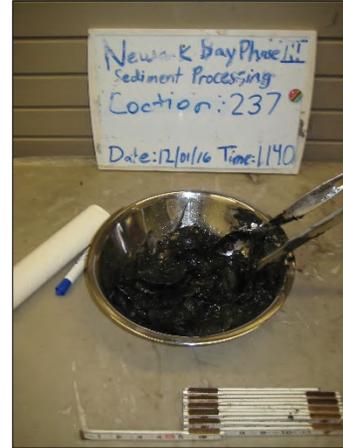


Location ID: 237  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 238  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 239  
Date Collected: 12/05/16  
Date Processed: 12/06/16

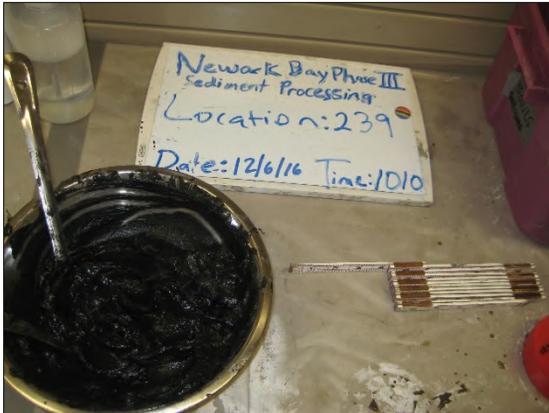
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 241  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 242  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 243  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Core Before Processing



Pre-Mixing Sediment Sample

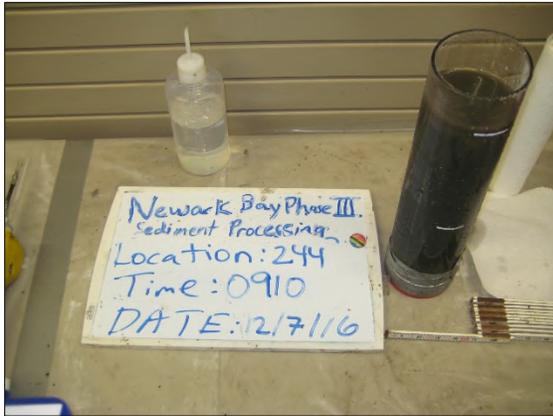


Post-Mixing Sediment Sample



Location ID: 244  
Date Collected: 12/06/16  
Date Processed: 12/07/16

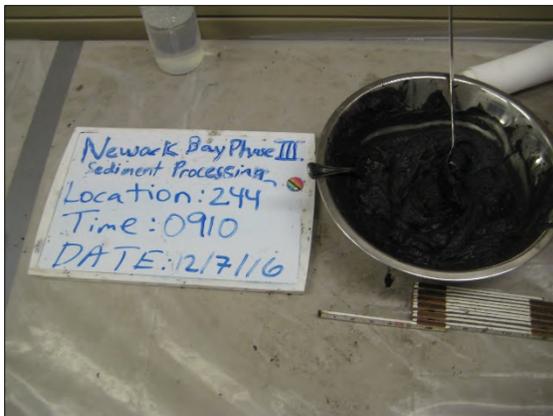
Core Before Processing



Pre-Mixing Sediment Sample

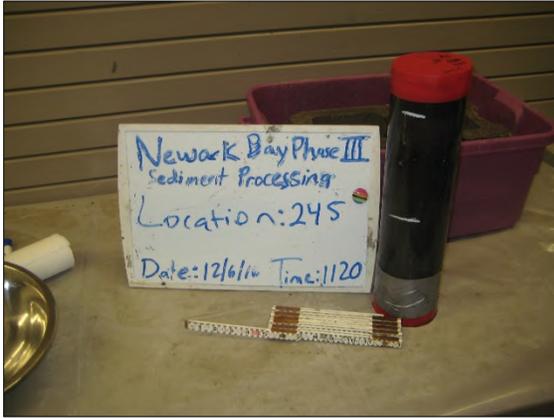


Post-Mixing Sediment Sample



Location ID: 245  
Date Collected: 12/05/16  
Date Processed: 12/06/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 246  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 247  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

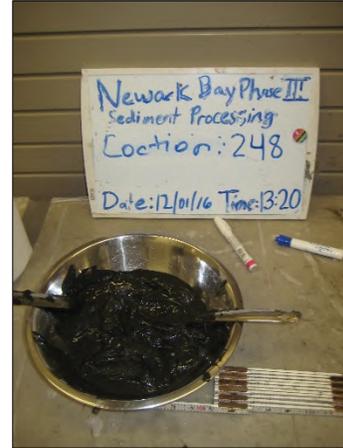


Location ID: 248  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 249  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 250  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 251  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

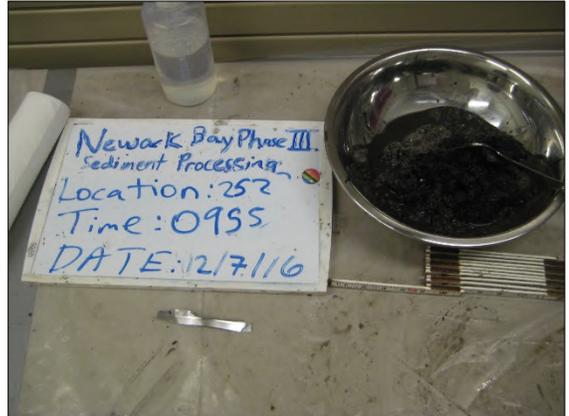


Location ID: 252  
Date Collected: 12/06/16  
Date Processed: 12/07/16

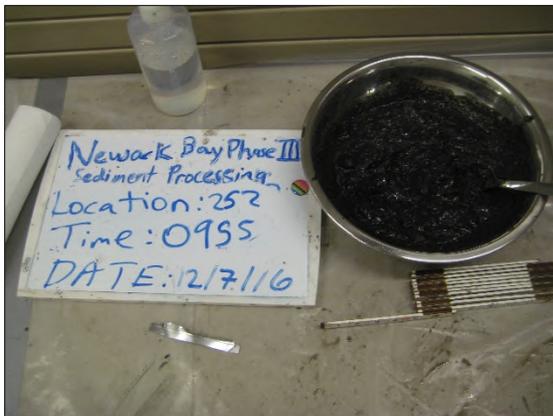
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 289  
Date Collected: 12/01/16  
Date Processed: 12/02/16

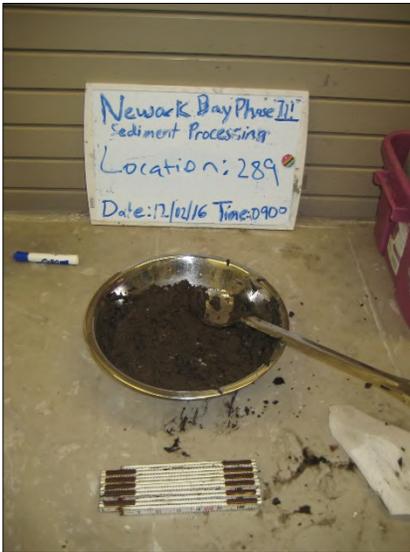
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 290  
Date Collected: 12/01/16  
Date Processed: 12/02/16

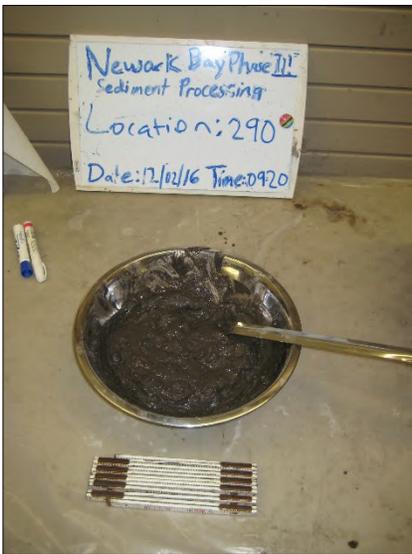
Core Before Processing



Pre-Mixing Sediment Sample

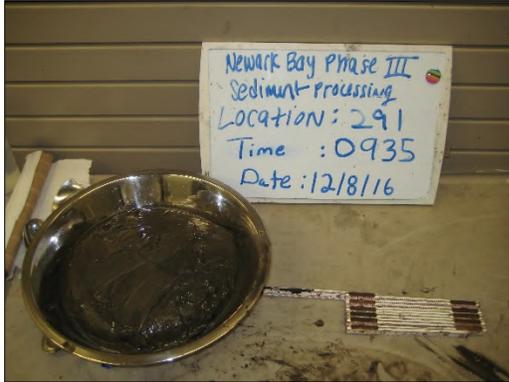


Post-Mixing Sediment Sample



Location ID: 291  
Date Collected: 12/07/16  
Date Processed: 12/08/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 292  
Date Collected: 12/07/16  
Date Processed: 12/08/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 293  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 294  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 295  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

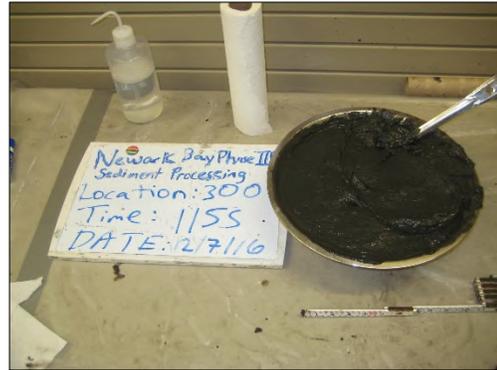


Location ID: 300  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 307  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 308  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 309  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample

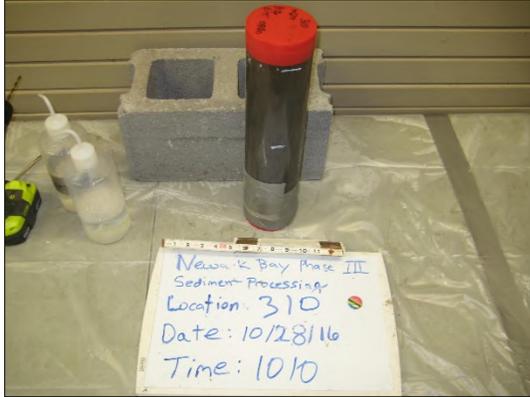


Post-Mixing Sediment Sample



Location ID: 310  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 311  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 312  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 313  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 314  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 315  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 316  
Date Collected: 11/01/16  
Date Processed: 11/02/16

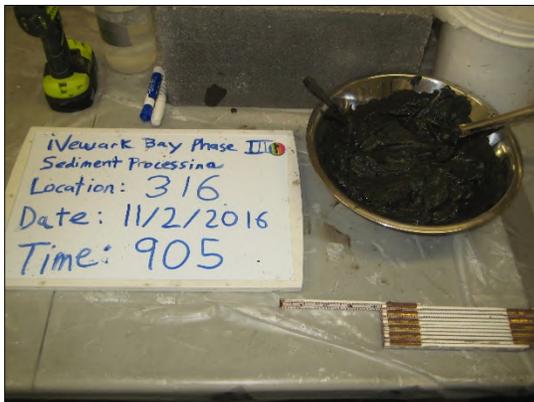
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 317  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 318  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 319  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 320  
Date Collected: 11/01/16  
Date Processed: 11/02/16

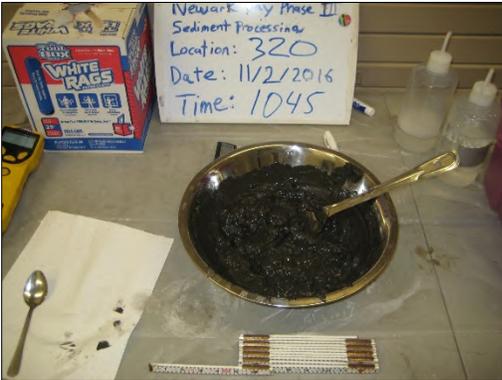
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 321  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample

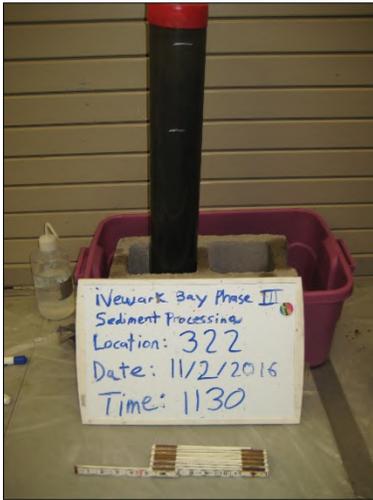


Post-Mixing Sediment Sample



Location ID: 322  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample

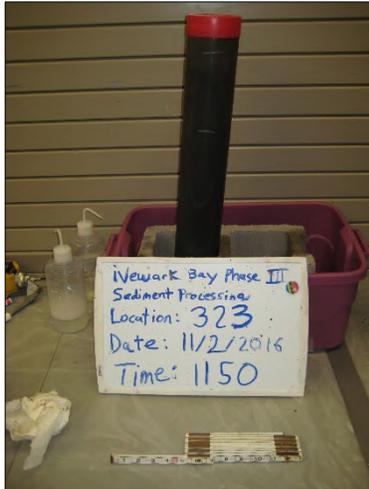


Post-Mixing Sediment Sample

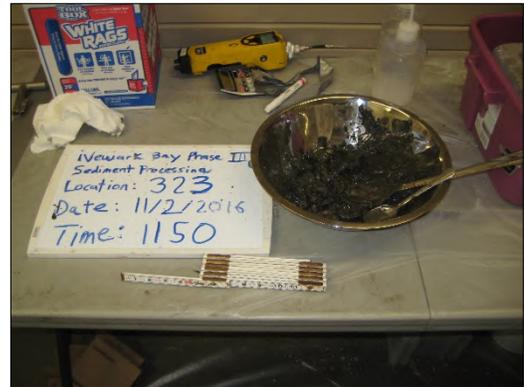


Location ID: 323  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 324  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample

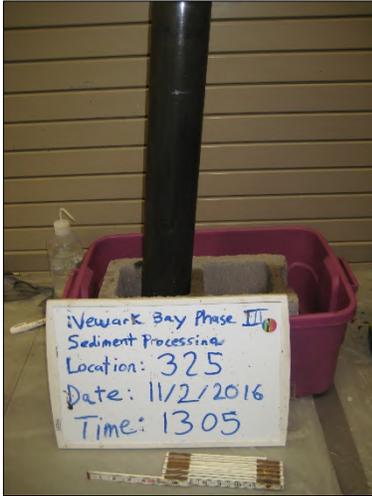


Post-Mixing Sediment Sample



Location ID: 325  
Date Collected: 11/01/16  
Date Processed: 11/02/16

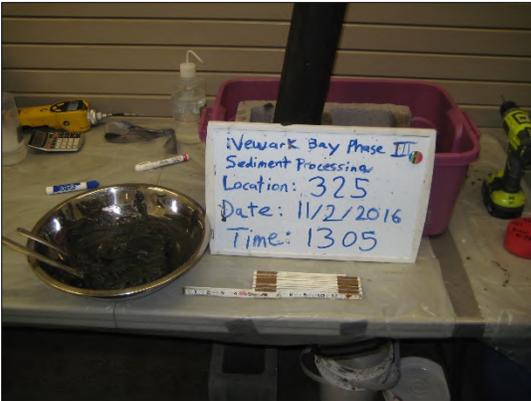
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 326  
Date Collected: 11/03/16  
Date Processed: 11/04/16

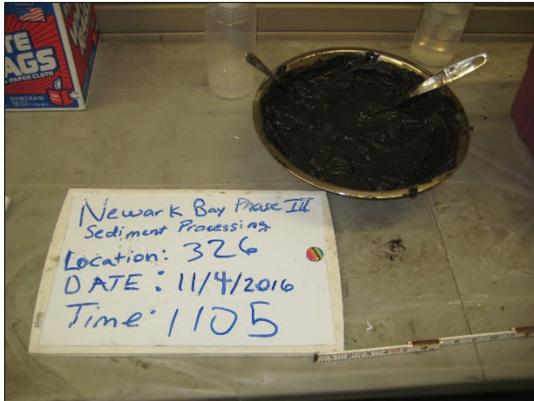
Cores Before Processing



Pre-Mixing Sediment Sample

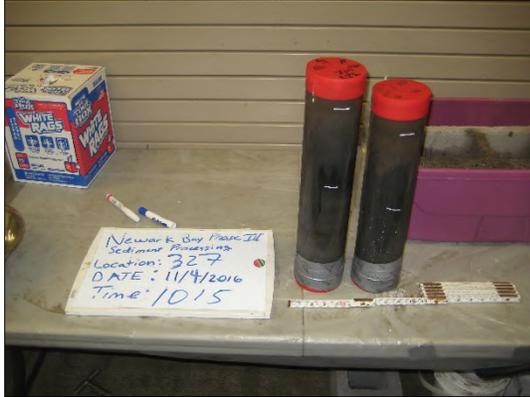


Post-Mixing Sediment Sample



Location ID: 327  
Date Collected: 11/03/16  
Date Processed: 11/04/16

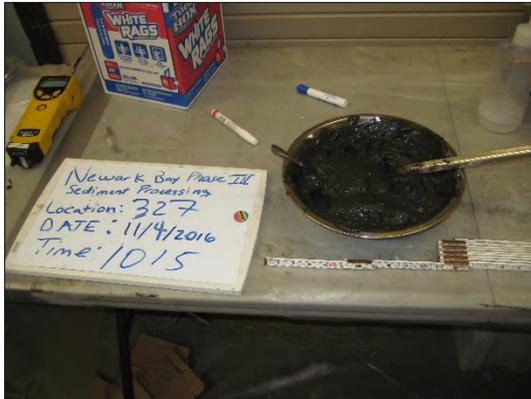
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 328  
Date Collected: 11/03/16  
Date Processed: 11/04/16

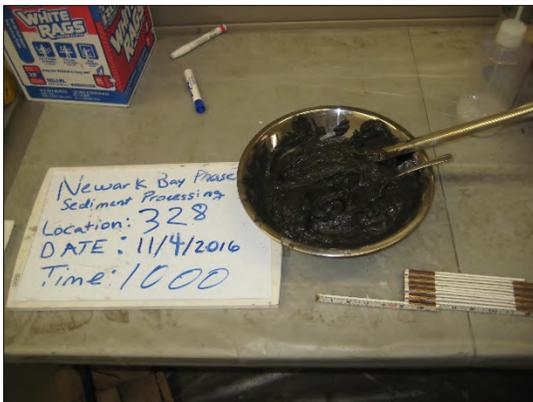
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 329  
Date Collected: 11/03/16  
Date Processed: 11/04/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 330  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 331  
Date Collected: 11/03/16  
Date Processed: 11/04/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 332  
Date Collected: 11/03/16  
Date Processed: 11/04/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 333  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample

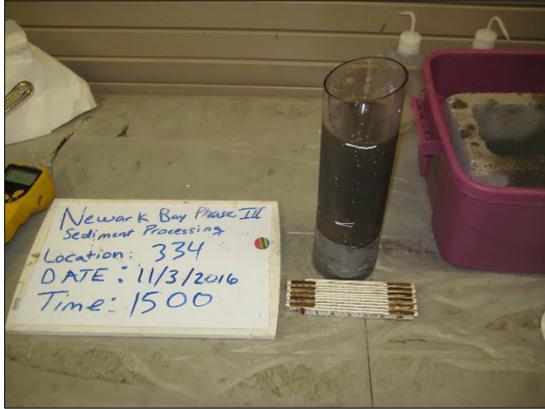


Post-Mixing Sediment Sample



Location ID: 334  
Date Collected: 11/02/16  
Date Processed: 11/03/16

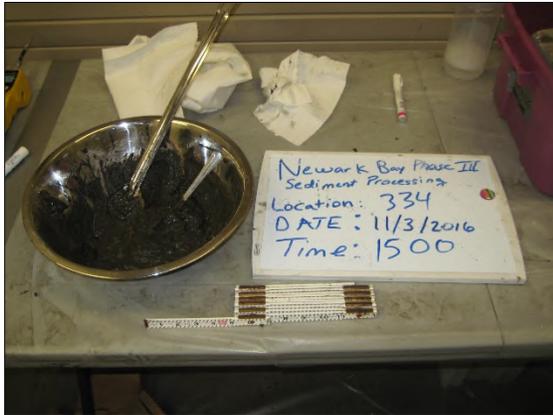
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 335  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 336  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 337  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample

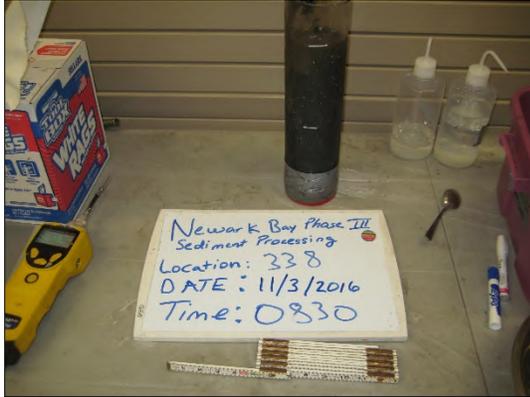


Post-Mixing Sediment Sample



Location ID: 338  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

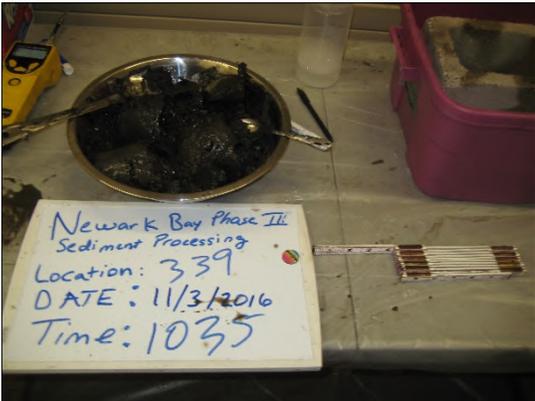


Location ID: 339  
Date Collected: 11/02/16  
Date Processed: 11/03/16

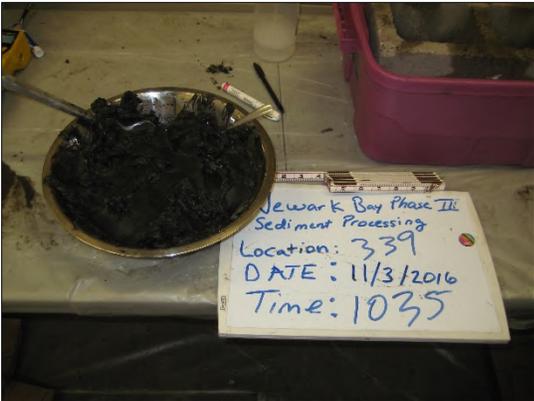
Cores Before Processing



Pre-Mixing Sediment Sample

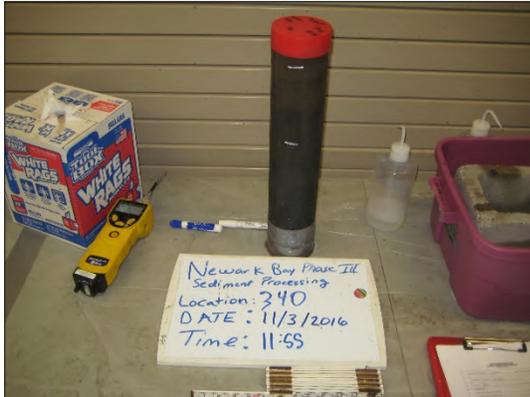


Post-Mixing Sediment Sample



Location ID: 340  
Date Collected: 11/02/16  
Date Processed: 11/03/16

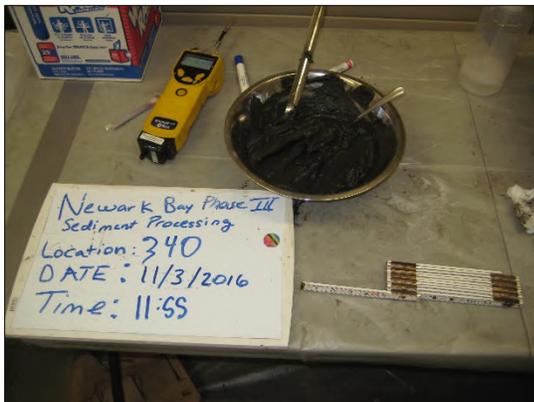
Core Before Processing



Pre-Mixing Sediment Sample

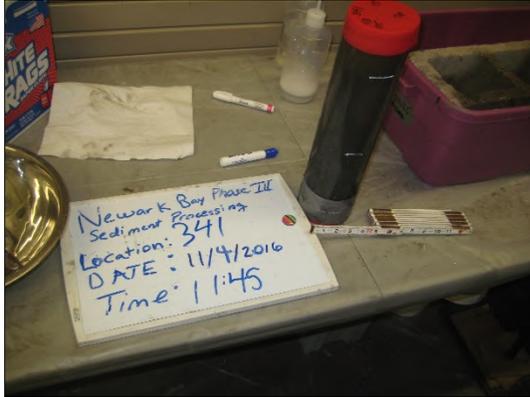


Post-Mixing Sediment Sample

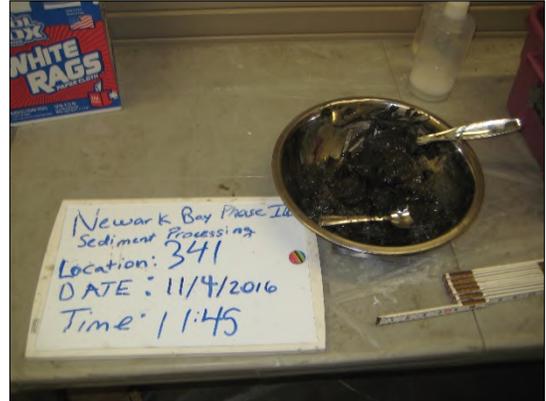


Location ID: 341  
Date Collected: 11/03/16  
Date Processed: 11/04/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 342  
Date Collected: 11/07/16  
Date Processed: 11/08/16

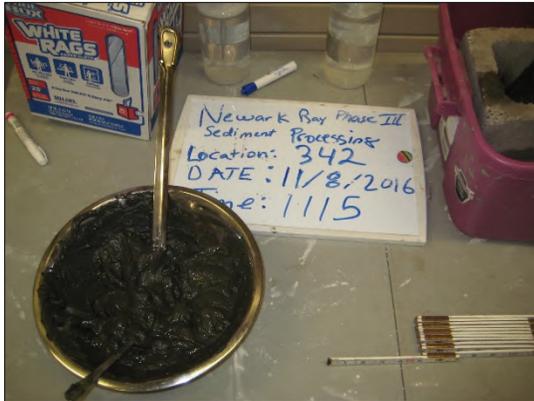
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 343  
Date Collected: 11/07/16  
Date Processed: 11/08/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 344  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

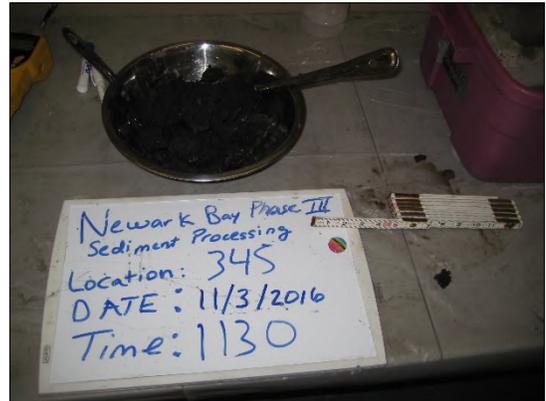


Location ID: 345  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample

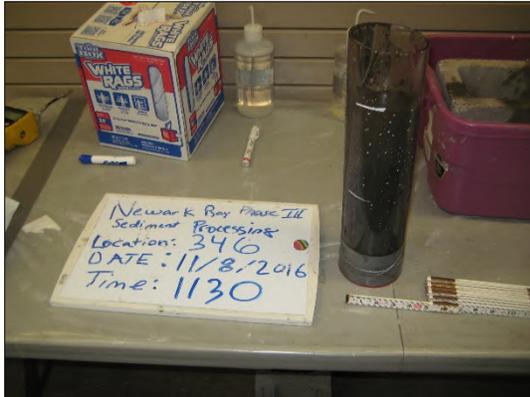


Post-Mixing Sediment Sample



Location ID: 346  
Date Collected: 11/07/16  
Date Processed: 11/08/16

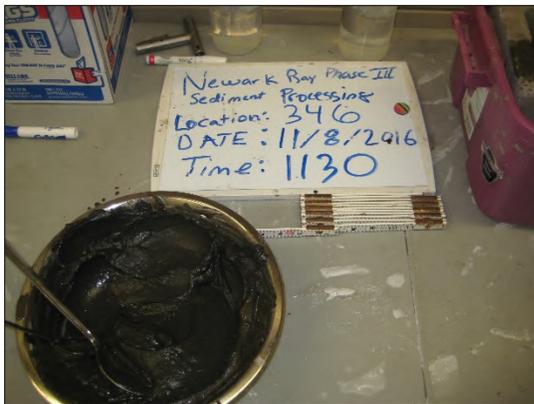
Core Before Processing



Pre-Mixing Sediment Sample

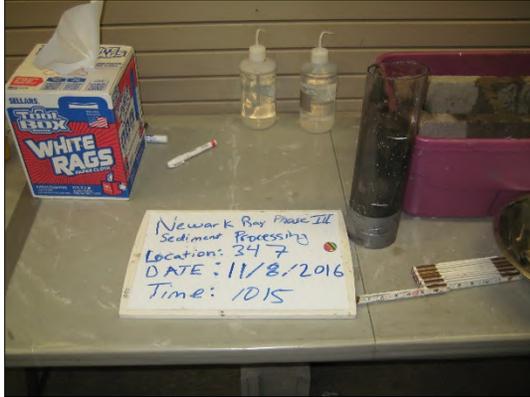


Post-Mixing Sediment Sample



Location ID: 347  
Date Collected: 11/07/16  
Date Processed: 11/08/16

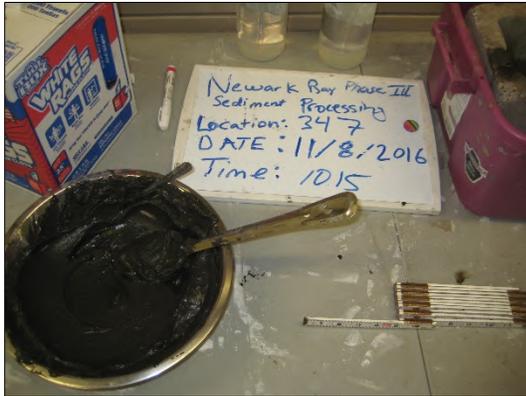
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 348  
Date Collected: 11/07/16  
Date Processed: 11/08/16

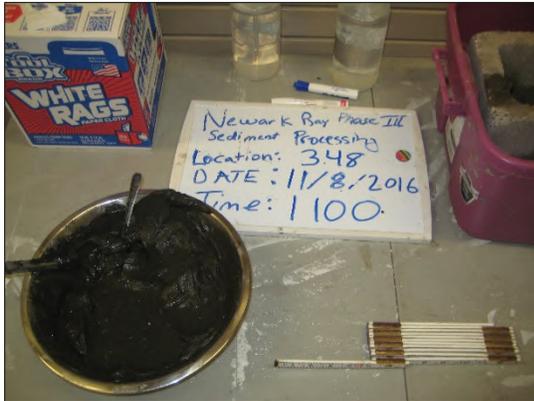
Core Before Processing



Pre-Mixing Sediment Sample

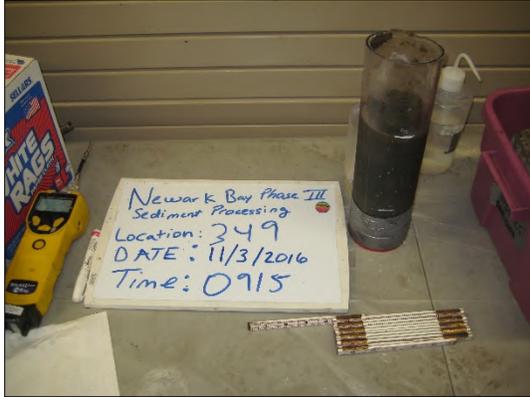


Post-Mixing Sediment Sample



Location ID: 349  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 350  
Date Collected: 11/02/16  
Date Processed: 11/03/16

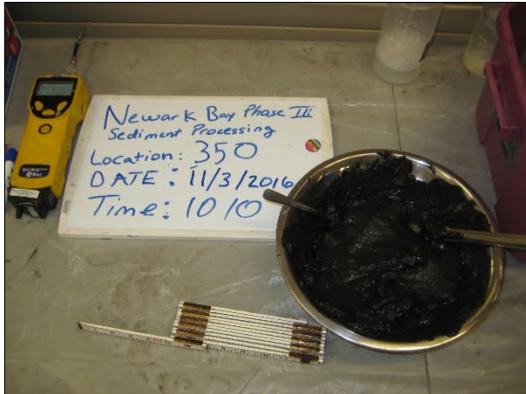
Core Before Processing



Pre-Mixing Sediment Sample

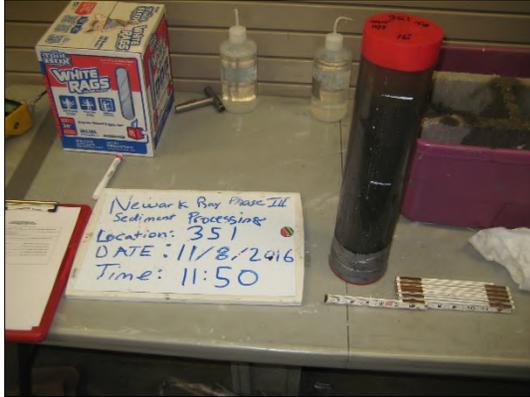


Post-Mixing Sediment Sample



Location ID: 351  
Date Collected: 11/07/16  
Date Processed: 11/08/16

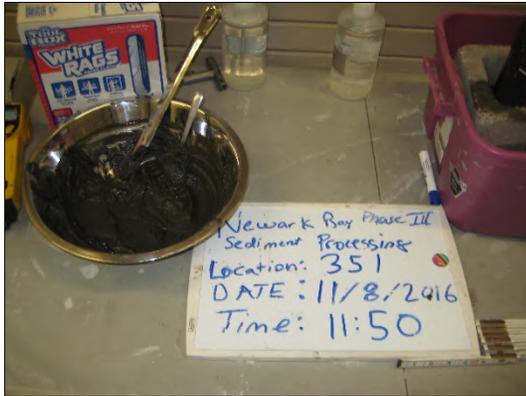
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

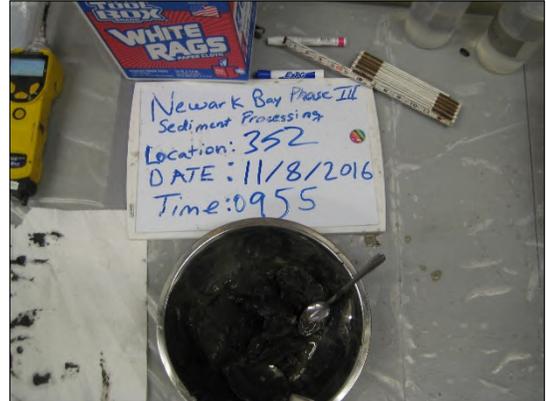


Location ID: 352  
Date Collected: 11/07/16  
Date Processed: 11/08/16

Core Before Processing



Pre-Mixing Sediment Sample

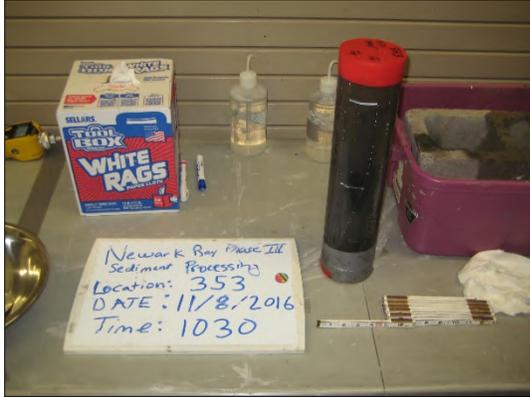


Post-Mixing Sediment Sample



Location ID: 353  
Date Collected: 11/07/16  
Date Processed: 11/08/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 354  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 355  
Date Collected: 11/07/16  
Date Processed: 11/08/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 356  
Date Collected: 11/07/16  
Date Processed: 11/08/16

Core Before Processing



Pre-Mixing Sediment Sample

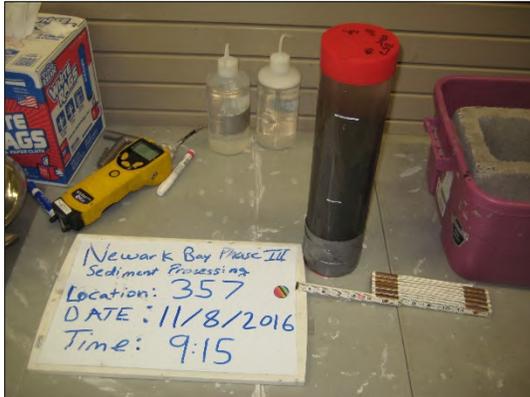


Post-Mixing Sediment Sample



Location ID: 357  
Date Collected: 11/07/16  
Date Processed: 11/08/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 358  
Date Collected: 11/07/16  
Date Processed: 11/08/16

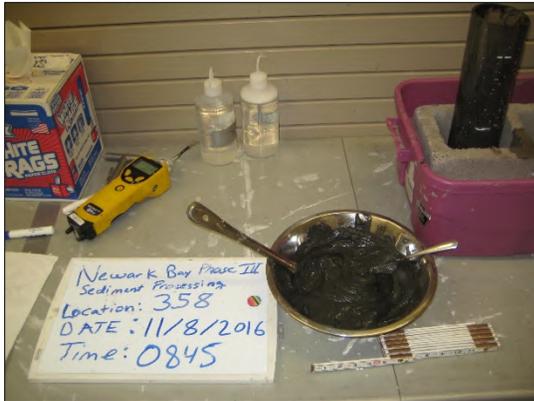
Core Before Processing



Pre-Mixing Sediment Sample

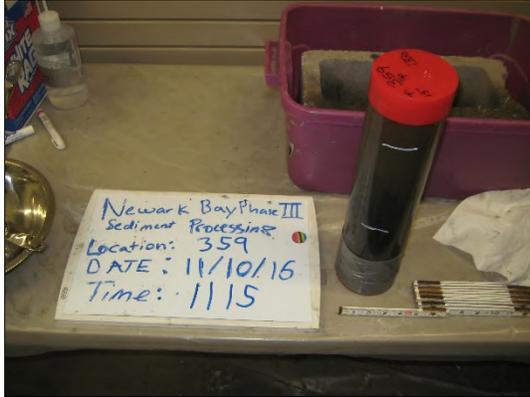


Post-Mixing Sediment Sample



Location ID: 359  
Date Collected: 11/09/16  
Date Processed: 11/10/16

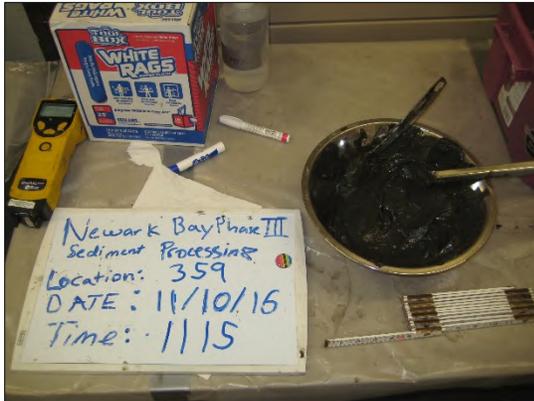
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 360  
Date Collected: 11/09/16  
Date Processed: 11/10/16

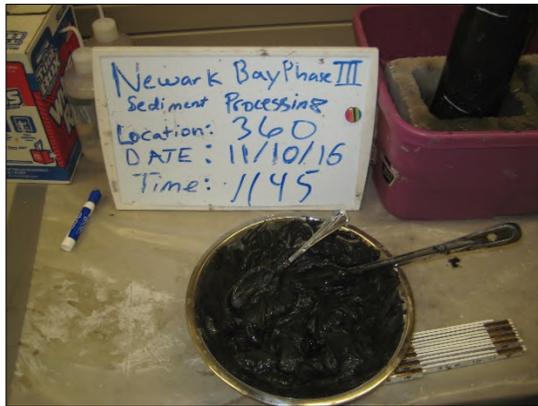
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 361  
Date Collected: 11/09/16  
Date Processed: 11/10/16

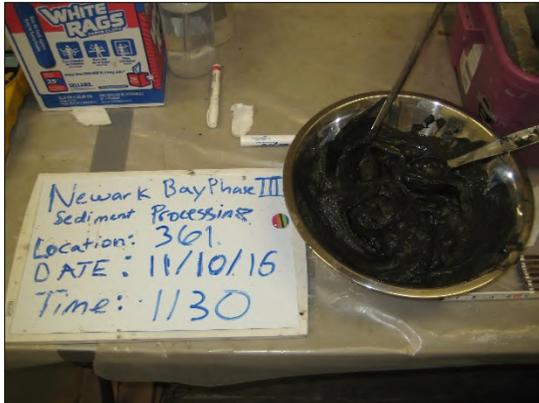
Core Before Processing



Pre-Mixing Sediment Sample

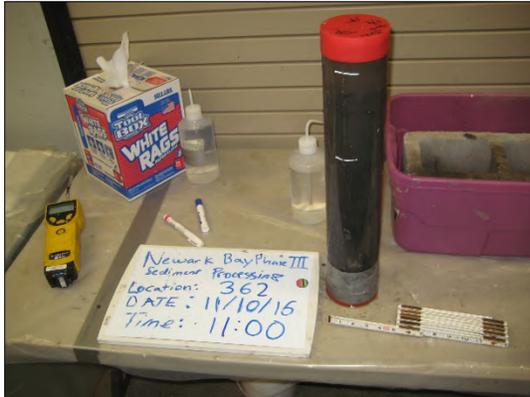


Post-Mixing Sediment Sample

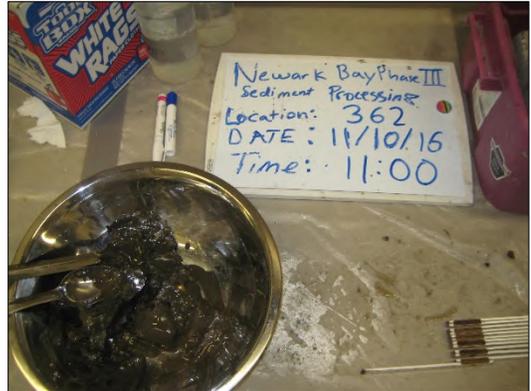


Location ID: 362  
Date Collected: 11/09/16  
Date Processed: 11/10/16

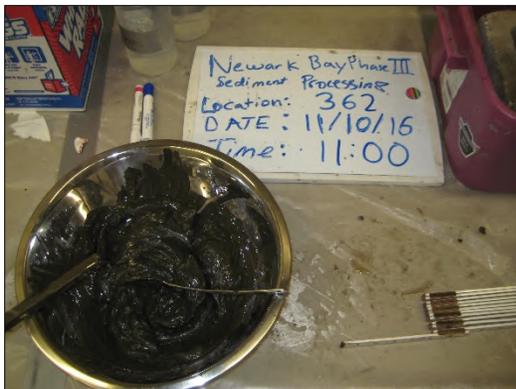
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 363  
Date Collected: 11/09/16  
Date Processed: 11/10/16

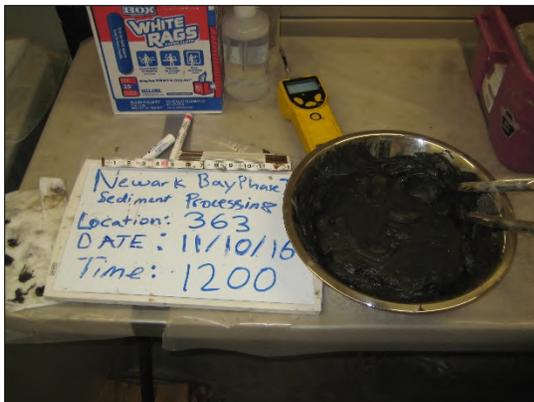
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 364  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

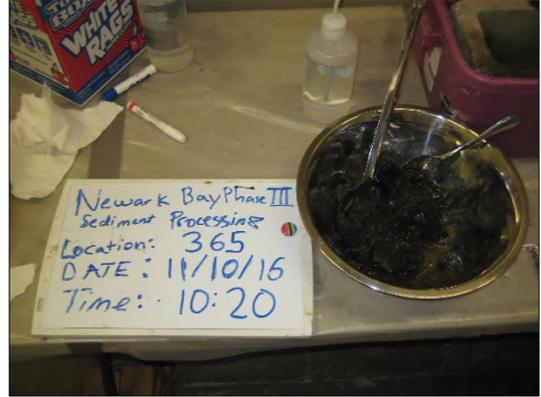


Location ID: 365  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 366  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 367  
Date Collected: 12/06/16  
Date Processed: 12/07/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 368  
Date Collected: 11/09/16  
Date Processed: 11/10/16

Core Before Processing



Pre-Mixing Sediment Sample

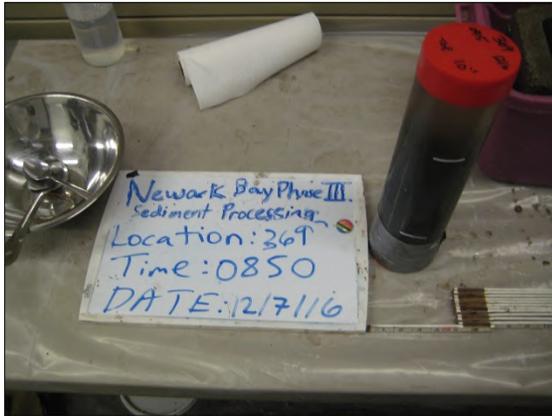


Post-Mixing Sediment Sample



Location ID: 369  
Date Collected: 12/06/16  
Date Processed: 12/07/16

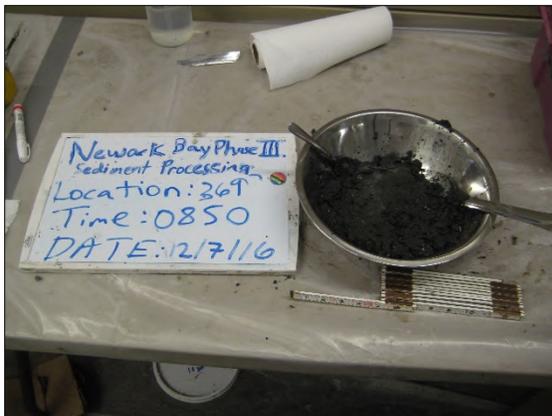
Core Before Processing



Pre-Mixing Sediment Sample

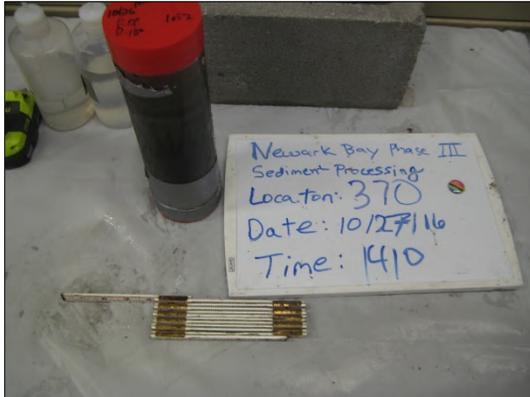


Post-Mixing Sediment Sample



Location ID: 370  
Date Collected: 10/26/16  
Date Processed: 10/27/16

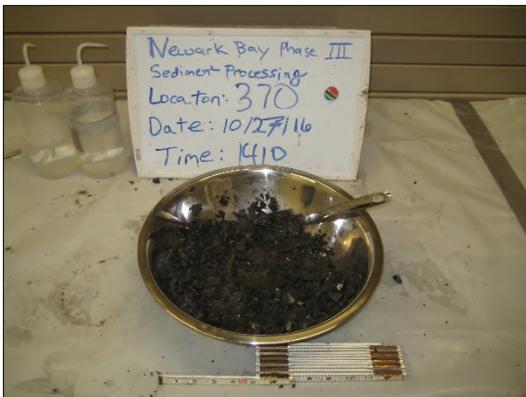
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

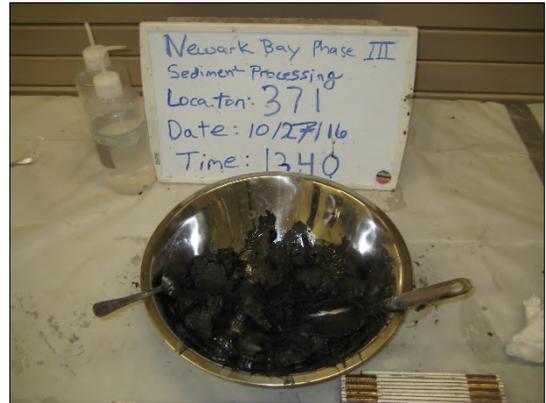


Location ID: 371  
Date Collected: 10/26/16  
Date Processed: 10/27/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 372  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 373  
Date Collected: 11/01/16  
Date Processed: 11/02/16

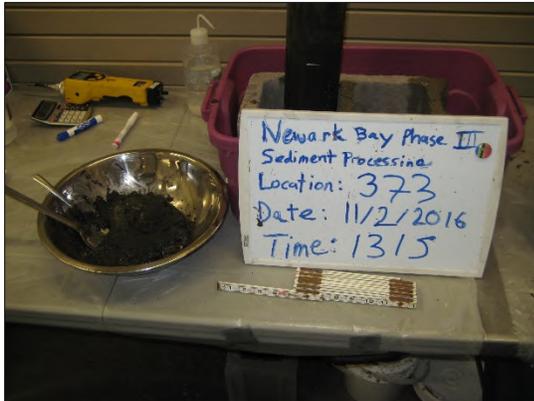
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 374  
Date Collected: 11/01/16  
Date Processed: 11/02/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 375  
Date Collected: 10/26/16  
Date Processed: 10/27/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 376  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 377  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 378  
Date Collected: 10/27/16  
Date Processed: 10/28/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 379  
Date Collected: 10/26/16  
Date Processed: 10/27/16

Core Before Processing



Pre-Mixing Sediment Sample

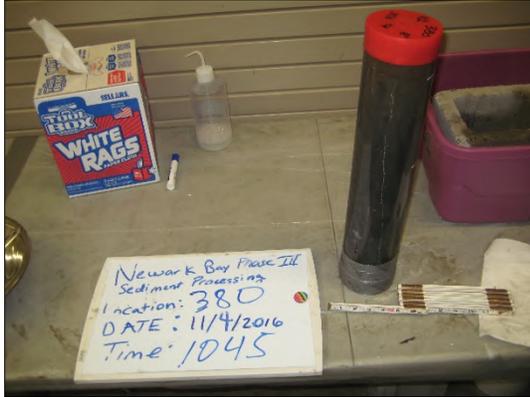


Post-Mixing Sediment Sample



Location ID: 380  
Date Collected: 11/03/16  
Date Processed: 11/04/16

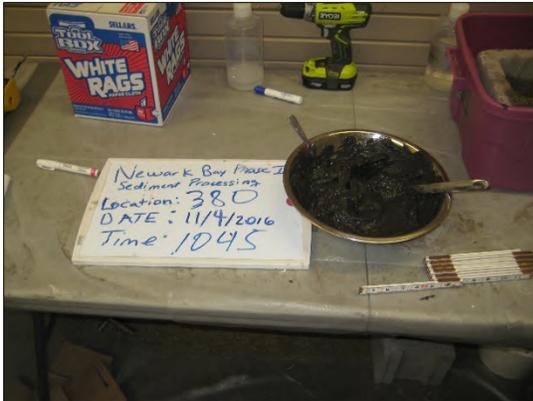
Core Before Processing



Pre-Mixing Sediment Sample

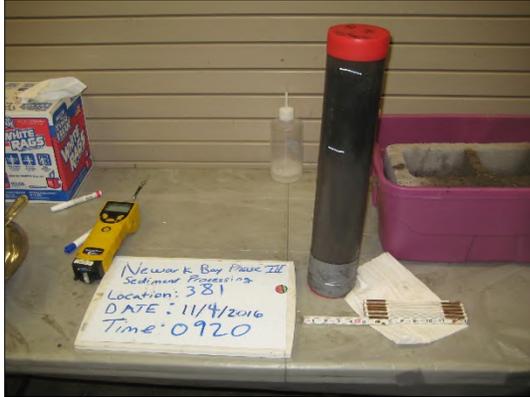


Post-Mixing Sediment Sample



Location ID: 381  
Date Collected: 11/03/16  
Date Processed: 11/04/16

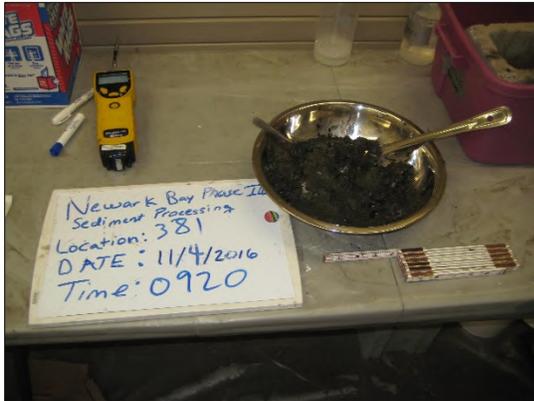
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 382  
Date Collected: 11/03/16  
Date Processed: 11/04/16

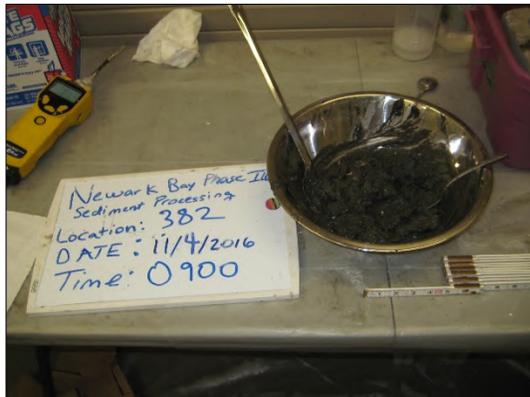
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 383  
Date Collected: 10/26/16  
Date Processed: 10/27/16

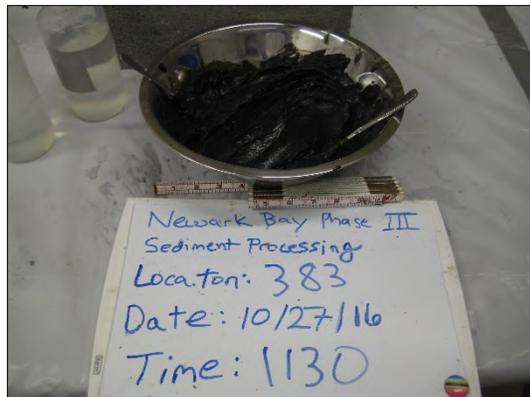
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

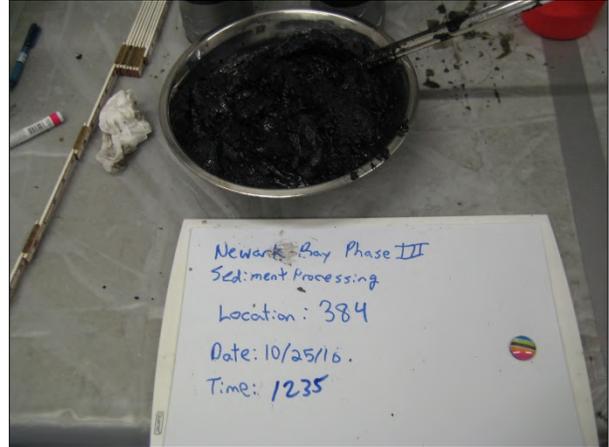


Location ID: 384  
Date Collected: 10/24/16  
Date Processed: 10/25/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

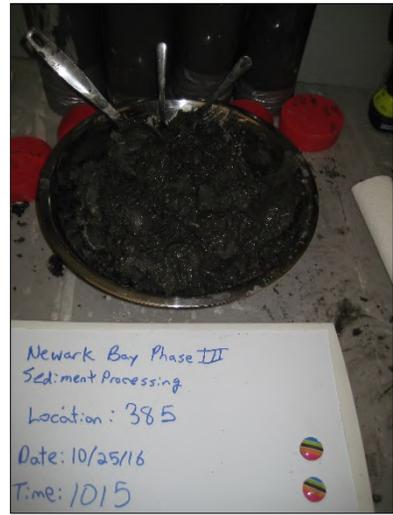


Location ID: 385  
Date Collected: 10/24/16  
Date Processed: 10/25/16

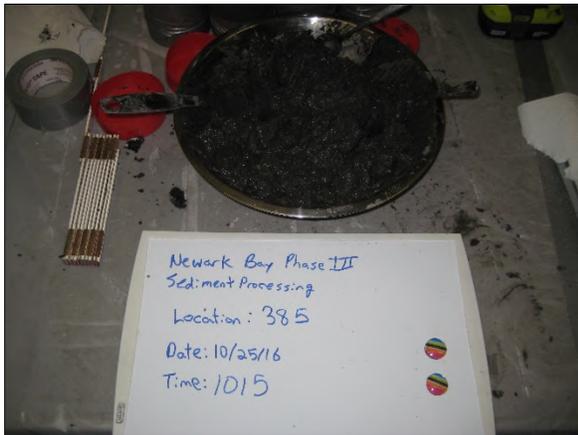
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 386  
Date Collected: 10/24/16  
Date Processed: 10/25/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 387  
Date Collected: 10/24/16  
Date Processed: 10/25/16

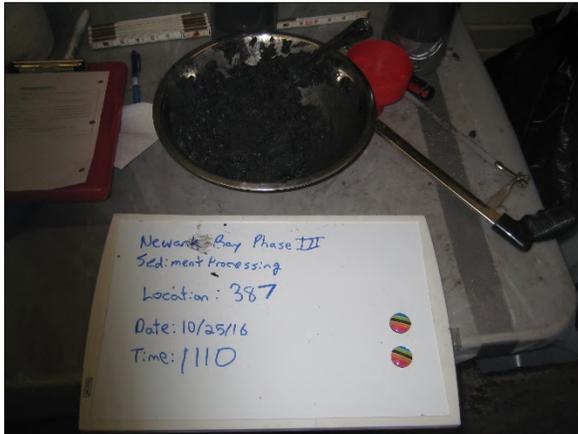
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 388  
Date Collected: 10/24/16  
Date Processed: 10/25/16

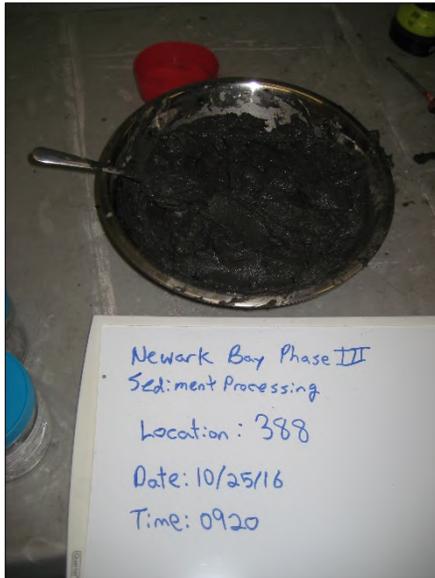
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 389  
Date Collected: 10/26/16  
Date Processed: 10/27/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 390  
Date Collected: 11/02/16  
Date Processed: 11/03/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

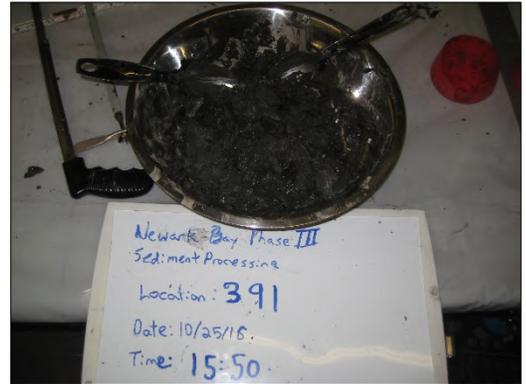


Location ID: 391  
Date Collected: 10/24/16  
Date Processed: 10/25/16

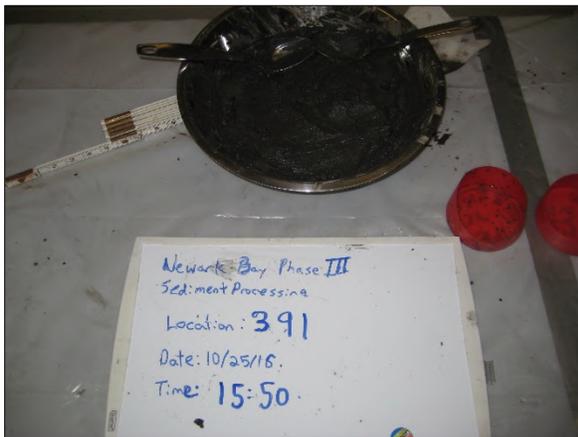
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 392  
Date Collected: 10/26/16  
Date Processed: 10/27/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 393  
Date Collected: 10/26/16  
Date Processed: 10/27/16

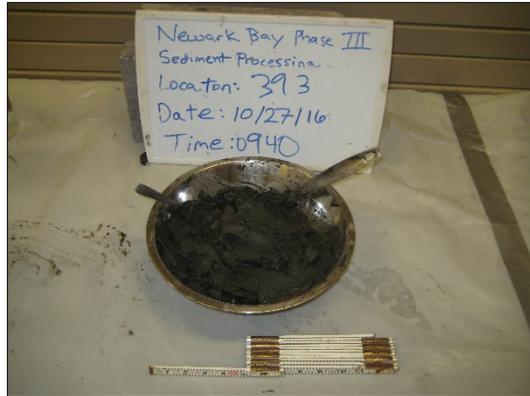
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

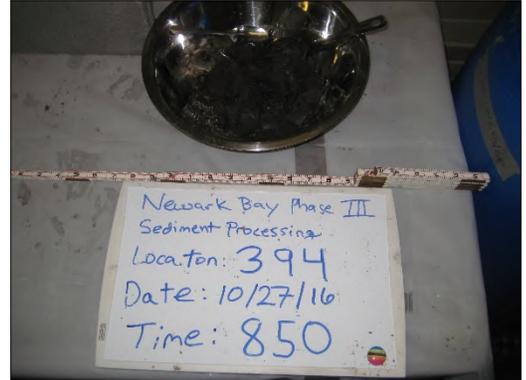


Location ID: 394  
Date Collected: 10/26/16  
Date Processed: 10/27/16

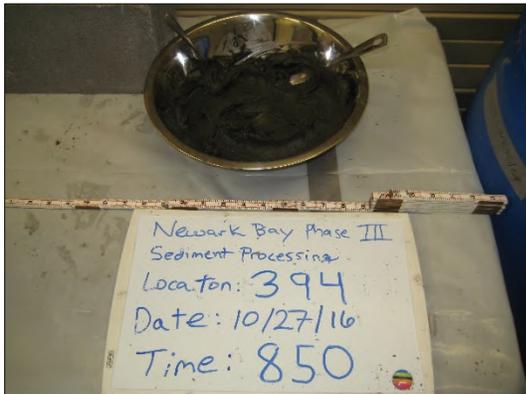
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 395  
Date Collected: 10/24/16  
Date Processed: 10/25/16

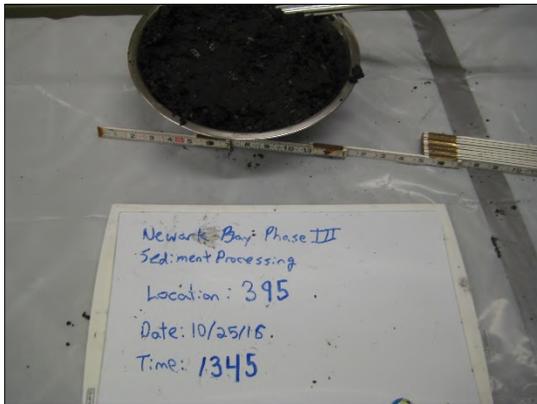
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

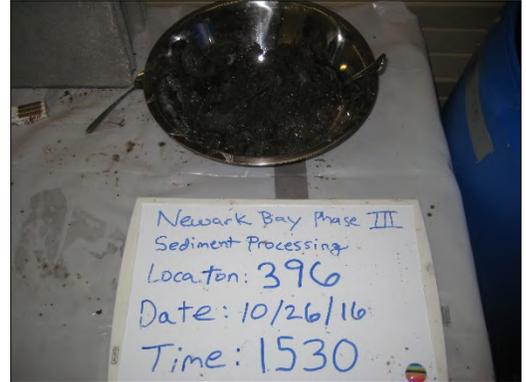


Location ID: 396  
Date Collected: 10/25/16  
Date Processed: 10/26/16

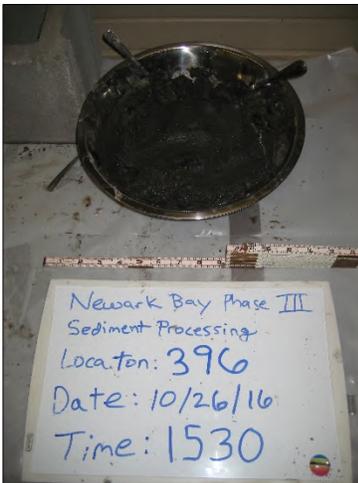
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 397  
Date Collected: 10/24/16  
Date Processed: 10/25/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

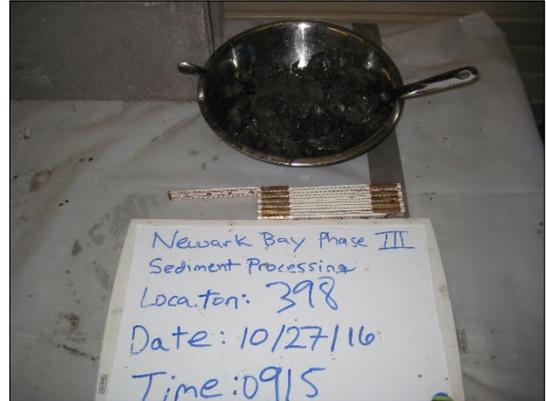


Location ID: 398  
Date Collected: 10/26/16  
Date Processed: 10/27/16

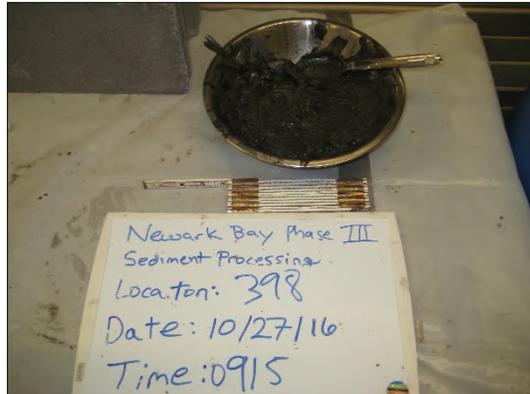
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 399  
Date Collected: 10/24/16  
Date Processed: 10/25/16

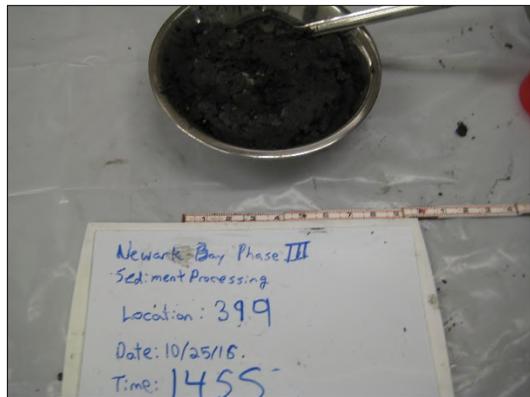
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

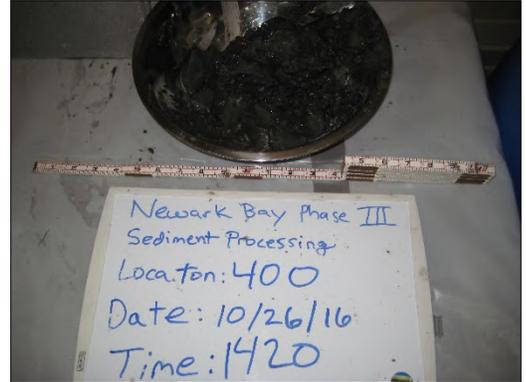


Location ID: 400  
Date Collected: 10/25/16  
Date Processed: 10/26/16

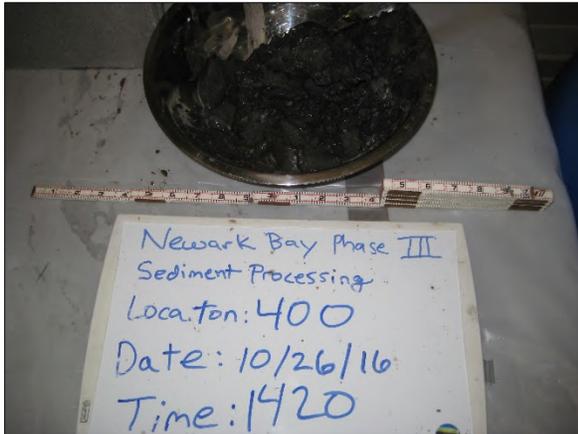
Cores Before Processing



Pre-Mixing Sediment Sample

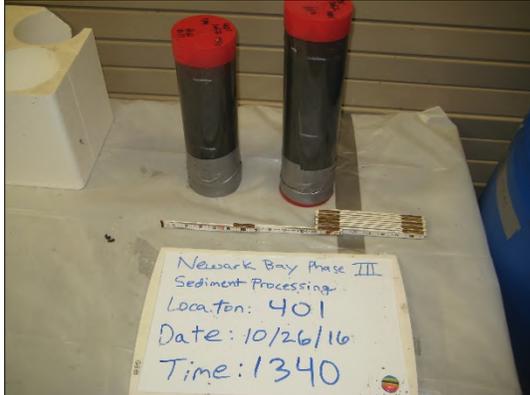


Post-Mixing Sediment Sample



Location ID: 401  
Date Collected: 10/25/16  
Date Processed: 10/26/16

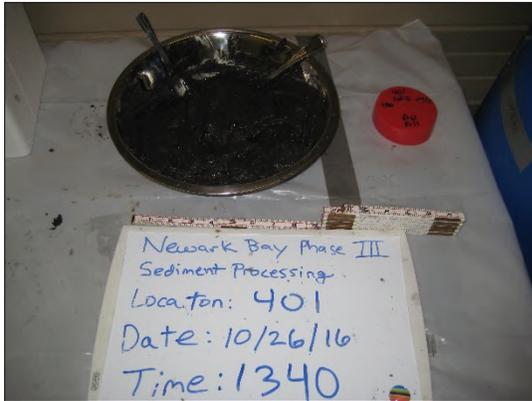
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 402  
Date Collected: 10/26/16  
Date Processed: 10/27/16

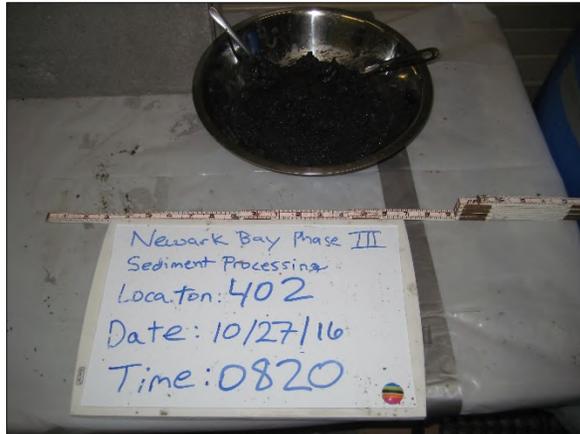
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 403  
Date Collected: 10/26/16  
Date Processed: 10/27/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 404  
Date Collected: 10/25/16  
Date Processed: 10/26/16

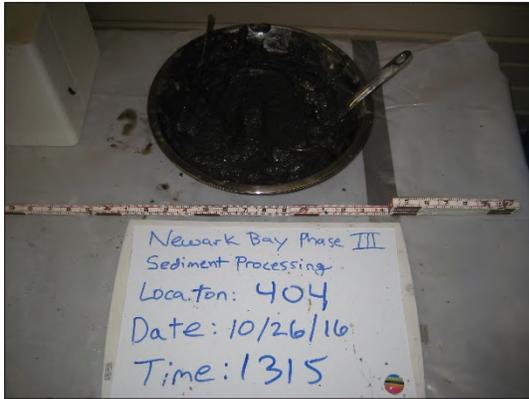
Cores Before Processing



Pre-Mixing Sediment Sample

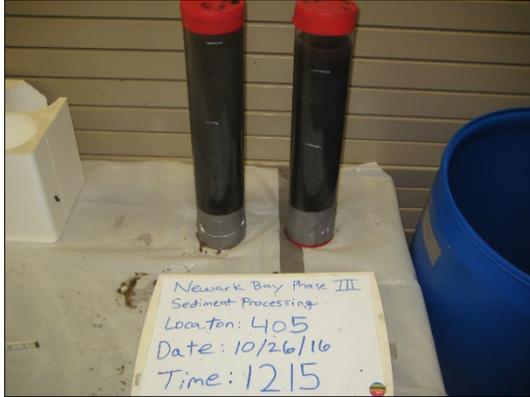


Post-Mixing Sediment Sample

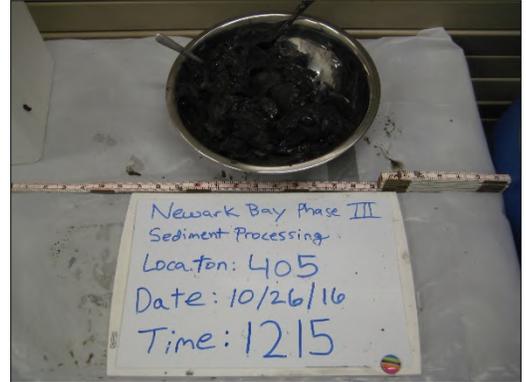


Location ID: 405  
Date Collected: 10/25/16  
Date Processed: 10/26/16

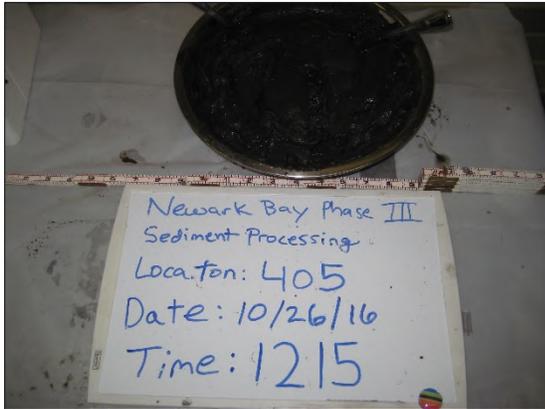
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 406  
Date Collected: 10/25/16  
Date Processed: 10/26/16

Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 407  
Date Collected: 10/25/16  
Date Processed: 10/26/16

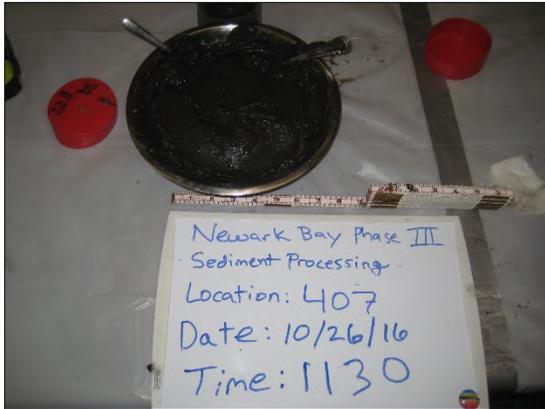
Cores Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Location ID: 408  
Date Collected: 10/25/16  
Date Processed: 10/26/16

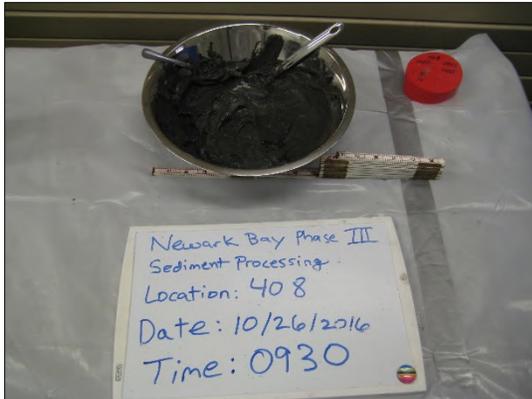
Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample

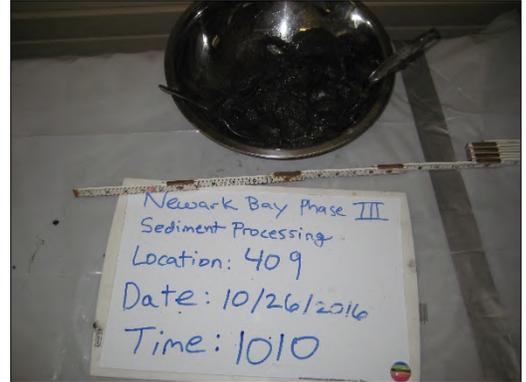


Location ID: 409  
Date Collected: 10/25/16  
Date Processed: 10/26/16

Core Before Processing



Pre-Mixing Sediment Sample



Post-Mixing Sediment Sample



Composite ID: NB03SED-CHMCOMP01  
Location ID: 296, 297, 298, 301, 302  
Date Collected: 11/14/16  
Date Processed: 11/15/16

Pre-Mixing: Location 296



Pre-Mixing: Location 297



Pre-Mixing: 298



Pre-Mixing: Location 301



Pre-Mixing: Location 302

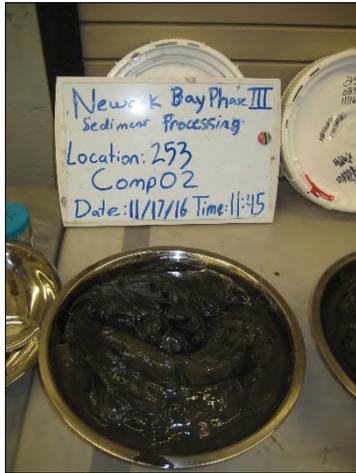


Post-Mixing: Composite 01  
NB03SED-CHMCOMP01



Composite ID: NB03SED-CHMCOMP02  
Location ID: 253, 254, 258, 262, 262  
Date Collected: 11/16/16  
Date Processed: 11/17/16

Pre-Mixing: Location 253



Pre-Mixing: Location 254



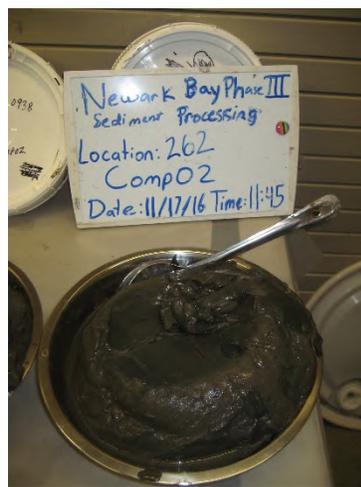
Pre-Mixing: 258



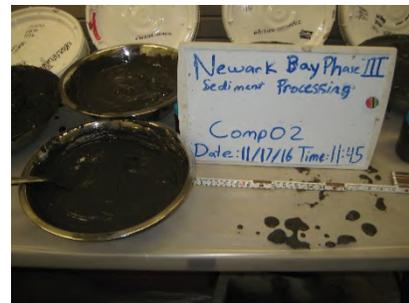
Pre-Mixing: Location 260



Pre-Mixing: Location 262



Post-Mixing: Composite 02  
NB03SED-CHMCOMP02

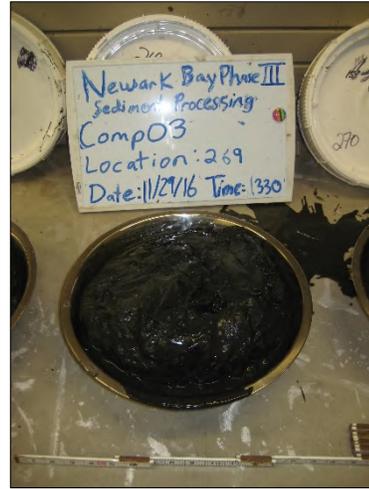


Composite ID: NB03SED-CHMCOMP03  
Location ID: 268, 269, 270  
Date Collected: 11/29/16  
Date Processed: 11/29/16

Pre-Mixing: Location 268



Pre-Mixing: Location 269



Pre-Mixing: Location 270



Post-Mixing: Composite 03  
NB03SED-CHMCOMP03

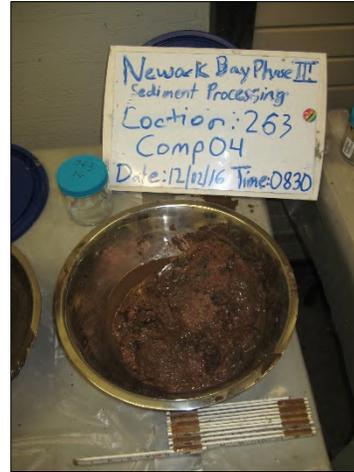


Composite ID: NB03SED-CHMCOMP04  
Location ID: 261, 263, 264, 265, 303, 305, 306  
Date Collected: 12/01/16  
Date Processed: 12/02/16

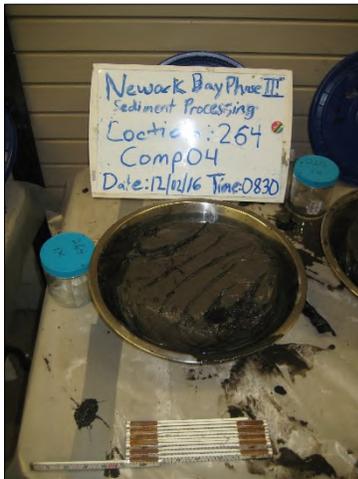
Pre-Mixing: Location 261



Pre-Mixing: Location 263



Pre-Mixing: Location 264



Pre-Mixing: Location 265



Composite ID: NB03SED-CHMCOMP04  
Location ID: 261, 263, 264, 265, 303, 305, 306  
Date Collected: 12/01/16  
Date Processed: 12/02/16

Pre-Mixing: Location 303



Pre-Mixing: Location 305



Pre-Mixing: Location 306



Post-Mixing: Composite 04  
NB03SED-CHMCOMP04



Composite ID: NB03SED-CHMCOMP05  
Location ID: 266, 267  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Pre-Mixing: Location 266



Pre-Mixing: Location 267

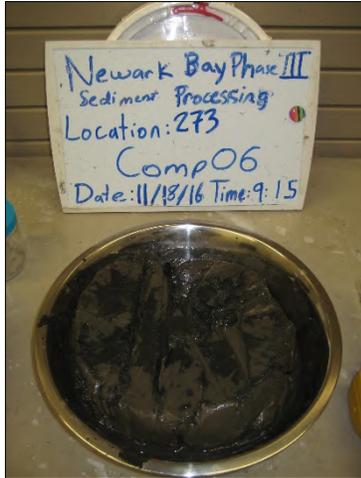


Post-Mixing: Composite 05  
NB03SED-CHMCOMP05



Composite ID: NB03SED-CHMCOMP06  
Location ID: 273, 275  
Date Collected: 11/17/16  
Date Processed: 11/18/16

Pre-Mixing: Location 273



Pre-Mixing: Location 275



Post-Mixing: Composite 06  
NB03SED-CHMCOMP06

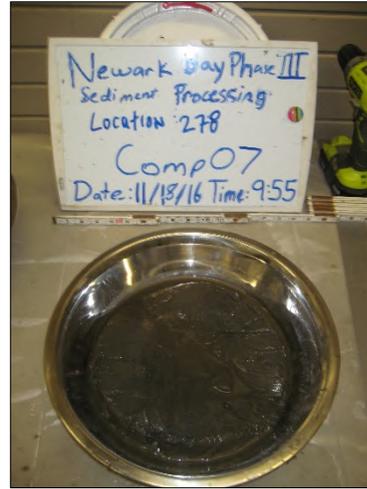


Composite ID: NB03SED-CHMCOMP07  
Location ID: 277, 278  
Date Collected: 11/17/16  
Date Processed: 11/18/16

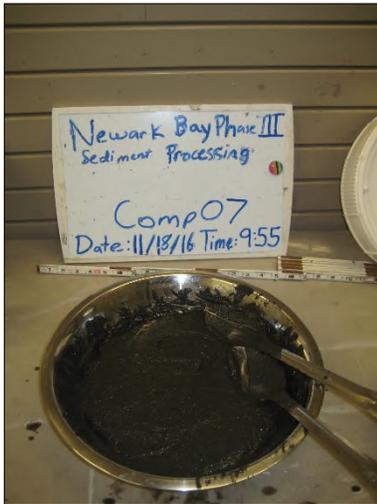
Pre-Mixing: Location 277



Pre-Mixing: Location 278



Post-Mixing: Composite 07  
NB03SED-CHMCOMP07



Composite ID: NB03SED-CHMCOMP08  
Location ID: 276, 281, 282, 283  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Pre-Mixing: Location 276



Pre-Mixing: Location 281



Pre-Mixing: 282



Pre-Mixing: Location 283

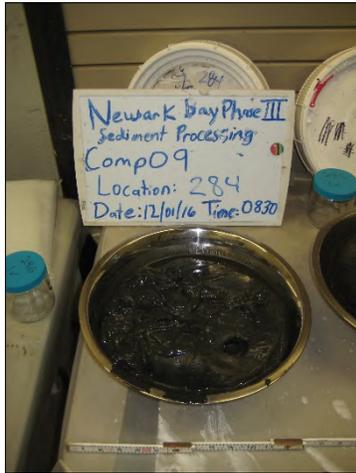


Post-Mixing: Composite 08  
NB03SED-CHMCOMP08



Composite ID: NB03SED-CHMCOMP09  
Location ID: 284, 285, 286, 287, 288  
Date Collected: 11/30/16  
Date Processed: 12/01/16

Pre-Mixing: Location 284



Pre-Mixing: Location 285



Pre-Mixing: 286



Pre-Mixing: Location 287



Pre-Mixing: Location 288

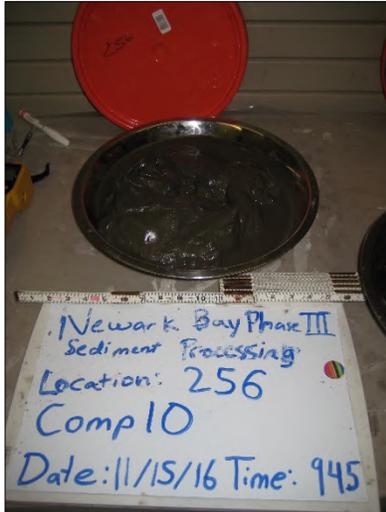


Post-Mixing: Composite 09  
NB03SED-CHMCOMP09



Composite ID: NB03SED-CHMCOMP10  
Location ID: 256, 304  
Date Collected: 11/10/16  
Date Processed: 11/11/16

Pre-Mixing: Location 256



Pre-Mixing: Location 304



Post-Mixing: Composite 10  
NB03SED-CHMCOMP10



## **Appendix I**

**Composite Surface Sediment Sample Processing Form**

Date: 11/15/16 Time Grab Samples Removed from Cooler: 1105

Composite Sample ID: Comp01 Number of Grabs to Homogenize: 5

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
296	0.1	104-0395	1125	dark brown clayey silt, trace vf. sand wet, v-soft
297	0.1	104-0396	1126	dark brown clayey silt, trace vf. sand wet, v-soft
298	0.1	104-0397	1127	Brown, clayey silt, trace vf. to fine sand wet, v-soft
301	0.1	104-0398	1128	dark brown, clayey silt, trace vf. sand wet, v-soft
302	0.1	104-0399	1128	dark brown, clayey silt, trace vf. sand wet, v-soft

**Mixer:**  
 Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_  
 Homogeneity Achieved? Y / N  
 Post-Mixing Description of Sediment: dark brown clayey silt, trace vf. fine sand, wet, v-soft

**Photograph (post-mixing):**  
 Number: 104-0400 Date: 11/15/16 Time: 12:00

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.):  
EPA split and dup  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: Zach Leisure

### Composite Surface Sediment Sample Processing Form

Date: 11/17/16 Time Grab Samples Removed from Cooler: 1114  
 Composite Sample ID: Comp02 Number of Grabs to Homogenize: 5

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
253	0	104-0426	11:39	black to dark brown, clayey silt, trace vf. sand wet, v. soft
254	0	104-0427	11:39	brown, clayey silt, trace vf. sand wet, v. soft
258	0	104-0428	11:40	brown clayey silt, trace vf. sand wet, v. soft
260	0	<sup>2110116</sup> <del>104-0429</del> 0430	11:40	dk brown clayey silt trace vf. sand wet v soft
262	0	104-0431	11:41	dk brown clayey silt trace vf. sand wet v soft

Mixer:

Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_

Homogeneity Achieved? (Y) / N

Post-Mixing Description of Sediment: Dark brown clayey silt  
little fine sand, wet, very soft

Photograph (post-mixing):

Number: 104-0432 Date: 11/17/16 Time: 12:11

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: Z.L.

**Composite Surface Sediment Sample Processing Form**

Date: 11/29/16 Time Grab Samples Removed from Cooler: 1230  
 Composite Sample ID: Comp 03 Number of Grabs to Homogenize: 3

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
268	0.1	104-0452	12:46	dark brown clayey silt, trace vf. sand wet, v. soft trace red worms
269	0.0	104-0453	12:46	dark brown clayey silt, trace vf. sand wet, v. soft
270	0.0	104-0454	12:47	brown clayey silt, trace vf. sand wet, v. soft

Mixer:  
 Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_  
 Homogeneity Achieved? (Y) N  
 Post-Mixing Description of Sediment: dark brown clayey silt, trace vf. sand  
wet, v. soft

Photograph (post-mixing):  
 Number: 104-0455 Date: 11/29/16 Time: 13:02

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: Sheisure

### Composite Surface Sediment Sample Processing Form

Date: 12/2/16 Time Grab Samples Removed from Cooler: 0750  
 Composite Sample ID: NB03SED-CHMCOMP04 Number of Grabs to Homogenize: 7

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
261	0.0	104-0488	8:07	brown clayey silt, trace f. sand wet, v. soft
263	0.1	104-0489	8:07	reddish brown clayey silt with little fine gravel wet, soft
264	0.0	104-0490	8:08	dark brown, clayey silt, trace f. sand, trace shells v. soft, wet
265	0.1	104-0492	8:08	dark brown clayey silt, trace f. sand soft, wet
303	0.1	104-0493	8:09	dark brown, clayey silt, trace f. sand trace shells
305	0.2	104-0494	8:09	dark brown clayey silt, trace f. sand soft, wet
306	0.1	104-0495	8:09	dark brown clayey silt, trace f. sand soft wet

**Mixer:**

Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_

Homogeneity Achieved?  Y / N

Post-Mixing Description of Sediment: dark brown, clayey silt, little fine sand, trace fine gravel, wet, very soft

**Photograph (post-mixing):**

Number: 104-0496 Date: 12/2/16 Time: 833

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): NA

Person Responsible for Completing Form: Z. Le Sure

### Composite Surface Sediment Sample Processing Form

Date: 12/01/2016 Time Grab Samples Removed from Cooler: 0935  
 Composite Sample ID: NB035ED-CHMCOMP05 Number of Grabs to Homogenize: 2

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
267	0.1	104-0467	0945	little fine gravel / to coarse gravel
266	0.0	104-0468	0946	brown silt fine to coarse sand, wet, loose Dark brown, clayey silt, little fine sand, wet, very soft, trace woody vegetation

**Mixer:**

Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_

Homogeneity Achieved?  Y  N

Post-Mixing Description of Sediment: Dark brown, clayey silt, some fine to coarse sand, trace fine gravel, wet, very soft

**Photograph (post-mixing):**

Number: 104-0469 Date: 12/01/16 Time: 0955

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: N. Carrie

**Composite Surface Sediment Sample Processing Form**

Date: 11/18/16 Time Grab Samples Removed from Cooler: 0849  
 Composite Sample ID: Comp06 Number of Grabs to Homogenize: 2

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
273	0.1	104-0442	8:59	dark brown silty f-c sand wet, bore trace worm, trace
275	0	104-0443	9:06	dark brown clayey silt little f-c sand wet, soft trace brick fragments, trace f.c. gravel, sub-angular

trace woody debris  
rat stems  
f-c. unknown  
gravel  
rd. e. gravel

**Mixer:**

Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_

Homogeneity Achieved? Y / N

Post-Mixing Description of Sediment: dk brown clayey silt  
little fine to coarse sand trace coarse gravel, wet, soft

**Photograph (post-mixing):**

Number: (1040444) Date: 11/18/16 Time: 9:16

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: EL

**Composite Surface Sediment Sample Processing Form**

Date: 11/18/16 Time Grab Samples Removed from Cooler: 09:27  
 Composite Sample ID: Comp07 Number of Grabs to Homogenize: 2

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
277	0.1	104-0446	9:41	brown silty f-c sand little clay wet, soft loose trace shells, frags, worm
278	0	104-0447	9:42	dk brown f-c silty sand trace clay trace shells, wet, loose, trace shells

**Mixer:**  
 Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_  
 Homogeneity Achieved?  Y  N  
 Post-Mixing Description of Sediment: dk brown silty f-c sand  
wet, loose, trace worms, shell fragments

**Photograph (post-mixing):**  
 Number: 104-0448 Date: 11/18/16 Time: 0945

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.):  
EPA split  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: ZL + JEM

### Composite Surface Sediment Sample Processing Form

Date: 12/1/16 Time Grab Samples Removed from Cooler: 0850

Composite Sample ID: Comp08 Number of Grabs to Homogenize: 4

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
276	0.0	104-0462	0907	dark gray, clayey silt, trace f. sand, trace woody debris, wet, v. soft
281	0.0	104-0463	0903	dark gray, clayey silt, trace f. sand, trace woody debris, wet, v. soft
282	0.1	104-0464	0904	dark brown, clayey silt, trace f. sand, trace woody debris, wet, v. soft
283	0.0	104-0465	0904	dark gray, clayey silt, trace f. sand, trace woody debris, wet, v. soft

Mixer:

Mixing Method Used (circle one): Manual Cement Mixer

If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_

Homogeneity Achieved? Y / N

Post-Mixing Description of Sediment: dark brown clayey silt, trace fine sand, wet v. soft

Photograph (post-mixing):

Number: 104-0466 Date: 12/1/16 Time: 09:22

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): \_\_\_\_\_

Person Responsible for Completing Form: N. Comrie

**Composite Surface Sediment Sample Processing Form**

Date: 12/01/2016 Time Grab Samples Removed from Cooler: 0756  
 Composite Sample ID: Comp 09 Number of Grabs to Homogenize: 5

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
284	0.0	104-0456	0809	Clayey silt, trace v. fine sand, dark brown, wet, soft
285	0.0	104-0457	0810	clayey silt, trace v. fine sand, trace wood debris, brown, wet, soft
286	0.0	104-0458	0810	clayey silt, trace v. fine sand, trace wood debris, worms, brown, wet, soft
287	1.2	104-0459	0811	Clayey silt, trace v. fine sand, trace wood debris, brown, wet, soft
288	0.6	104-0460	0811	Clayey silt, trace v. fine sand, trace shells, wet, soft, dark brown

Mixer:  
 Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_  
 Homogeneity Achieved? (Y) / N  
 Post-Mixing Description of Sediment: Clayey silt, trace very fine sand, dark brown, wet, very soft

Photograph (post-mixing):  
 Number: 104-0461 Date: 12/01/16 Time: 0831

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: N. Comrie

### Composite Surface Sediment Sample Processing Form

Date: 11/15/16 Time Grab Samples Removed from Cooler: 1014  
 Composite Sample ID: Comp10 Number of Grabs to Homogenize: 2

Grab Sample Location ID	PID Reading	Photo Number	Time of Photo	Pre-Mixing Description of Sediment
256	0.2	104-0392	10:22	brown clayey silt, <sup>traced</sup> red worms wet, v. soft
304	0.2	104-0393	10:24	dark brown clayey silt, trace v.f. sand wet, v. soft

Mixer:

Mixing Method Used (circle one): Manual Cement Mixer  
 If Cement Mixer Used: Time on: \_\_\_\_\_ Time off: \_\_\_\_\_  
 Homogeneity Achieved? (Y) N

Post-Mixing Description of Sediment: dark brown, clayey silt, trace v.f. sand  
wet, very soft

Photograph (post-mixing):

Number: 104-0394 Date: 11/15/16 Time: 1048

Notes (i.e., PE samples, EPA split samples, field duplicate, MS/MSD, etc.):  
EPA split taken  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Person Responsible for Completing Form: Z. LeSueur

## Appendix J

B0009989.0049 - NBSA Phase III

## CONTENTS

PAGE	REFERENCE	DATE
	Arcadis PM: Jamie Combes: 804.938.8146/ 315.671.9293	
	Key Personnel: Kevin Gandhi: 607.366.9031/716.353.1055	
	- Processing: Julianne Hogarty: 610.812.7852	
	Zach Leisure: 717.644.2480	
	Nick Comrie: 914.388.7687	
	- Boert: Pat Dougher: 315.706.9053	
	Joe Fedele: 201.286.0327	
	Tierra PM: Carlie Thompson: 480.734.7074/ 732.246.5849	
	Brian Mikucki: 732.579.7856/ 732.246.5920	

Location 80 Lister Ave. Newark, NJ Date 10.12.16 3

Project / Client Tierra - NBSA Phase III 1/3

Personnel: Julianne Hogarty (author) } Arcadis  
Jonathan Tracy }SOW: decon equipment, process area setup,  
field blank collection

Weather: sunny, 50s-60s

725 All onsite, H&amp;S meeting

740 Count bowls and spoons

750 Bring in cut lexan tubes, picked up from  
Dave Cornell (Arcadis) on 10/11/16.

810 Equipment inventory, unwrap spoons

830 Remove poly sheeting and reline deconned  
equipment storage area.930 Begin decon of 170 spoons, 4 large  
spoons, and 60 bowls. All equipment  
stainless steel.

Decon procedure:

- scrub equipment with alknox and <sup>tap</sup> water  
using bristle brushes
- rinse with tap water.
- rinse with ~~tap~~ 10% nitric acid.
- rinse with DI water.
- rinse with methanol, then hexane.
- rinse with DI water. JH 10/12/16

Rite in the Rain

4 Location 80 Lister Ave. Newark, NJ Date 10/12/16

Project / Client Tierra - NBSA Phase III

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930 cont'd.: All equipment placed on lined shelves to air-dry.

1150 Break for lunch.

1215 Resume decon activities.

1300 Decon complete.

1330 Pat Dougher (Arcadis) onsite, drops off remaining hexan.

1340 Bottle inventory.

1355 PD offsite.

1405 Set up bottleware for field blanks.

1430 Make ice bags.

1500 Collect NB3150 FB - Equipment blank, <sup>10/12/16</sup> (or hexane)

Procedure: pour lab-supplied DI water into decontaminated stainless steel bowl. Stir with decontaminated stainless steel spoon. Transfer directly to lab-supplied pre-preserved bottleware.

1545 NB3150 FB collection complete.

1600 collect NB3151 FB - Teflon liner blank.

Procedure: pour lab-supplied DI water (or hexane) into 5-gallon Teflon liner, swish in liner by rolling on table. Transfer directly to lab-supplied pre-preserved bottleware.

JH 10/12/16

Location 80 Lister Ave. Newark, NJ Date 10/12/16 5

Project / Client Tierra - NBSA Phase III

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1640 Finish collecting NB3151 FB Test  
pH of preserved blanks:

Ana ID	Analyte	pH	OK?
NB3150FB	TEPH-alk	0	yes
	TOC	0	yes
	Cyanide	13	yes
	Metals	0	yes
NB3151FB	TEPH-alk	0	yes
	TOC	0	yes
	Cyanide	13	yes
	Metals	0	yes

1645 Pack samples for Eurofins. Per conversation with Jamie Combes (Arcadis) at 1615, mercury and methylmercury blanks will be held in the onsite refrigerator until tomorrow due to absence of trip blank.

1730 Eurofins courier onsite, picks up coolers, delivers preservative to adjust pH where necessary.

1740 Eurofins courier offsite, Vista cooler packed.

1745 Cover decontaminated equipment with foil.

1810 Print FedEx label.

1815 All offsite.

JH 10/12/16

Rite in the Rain

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Location 80 Lister Ave. Newark, NJ Date 10/13/16Project / Client Tierra- NBSA Phase III

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Personnel: Julianne Haggarty (author)  
 Zach Leisure } Arcadis  
 Jon Tracy }

SOW: decon Lexan and caps, field blank.

Weather: sunny, 60s

730 JH + ZL onsite

740 JT onsite, review SOW, <sup>JH 10/13/16</sup> plan discuss logistics and equipment storage areas with Ryan + Les (Brown + Caldwell).

750 Begin process area set-up: line floor with plastic, with rubber mats. Plastic-covered table in center.

800 Pine delivers 8 petite and 2 standard Ponar dredges.

810 Set up storage area for deconned Lexan tubes and caps.

830 Begin Lexan decon: scrub plastic residue from liners, scrub withalconox, rinse with tap water. Rinse with 10% nitric acid, rinse with DI water. Rinse with methanol, rinse with hexane, flush with DI water (5x as much as chemicals).

910 J + M + C (Arcadis) calls to discuss

J\* 10/13/16

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Location 80 Lister Ave. Newark, NJ Date 10/13/16Project / Client Tierra- NBSA Phase III

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910 cont. Lexan staging (after decon) and field blank collection procedure. Cores will be stacked in fully enclosed shelving covered in poly. Double layer of aluminum foil (dull sides touching cores) will be placed between layers. Field blank will be collected by pouring water through liner while rotating, into cap, into stainless steel bowl.

1215 Break for lunch.

1235 Resume Lexan decon.

1245 Set up storage area for decontaminated core lids.

1330 Lexan decon complete. Begin chemical decon of core caps by same process as Lexan.

1400 Kavin Gandhi and Alain Hebert (Arcadis) onsite for field readiness review call.

1515 Core cap decon complete, make ice bags.

1545 Prepare for Lexan field blank collection.

1550 AH + KG offsite.

1600 Collect Lexan field blank: NB3152FB.

Procedure: attach <sup>deconned</sup> core cap to <sup>deconned</sup> Lexan core with duct tape. Pour lab-supplied DI water or

J\* 10/13/16

Rate in the Rain.

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Project / Client Tierra-NBSA Phase III

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1600 cont. hexane into hexan "cup" and transfer directly to lab-provided pre-preserved bottlware.

1640 Finish field blank collection, check pH of preserved blanks:

ID	Analyte	pH	ok?
NB3152FB	TEPH-alk	1	yes
	TOC	1	yes
	cyanide	12.8	yes
	Metals	1	yes

1650 Pack coolers for Eurofins, Frontier, and Vista.

1720 Eurofins onsite.

1730 Eurofins offsite. Continue packing Frontier and Vista.

1750 Coolers packed, prepare hexan + EnCores for Monday and Tuesday.

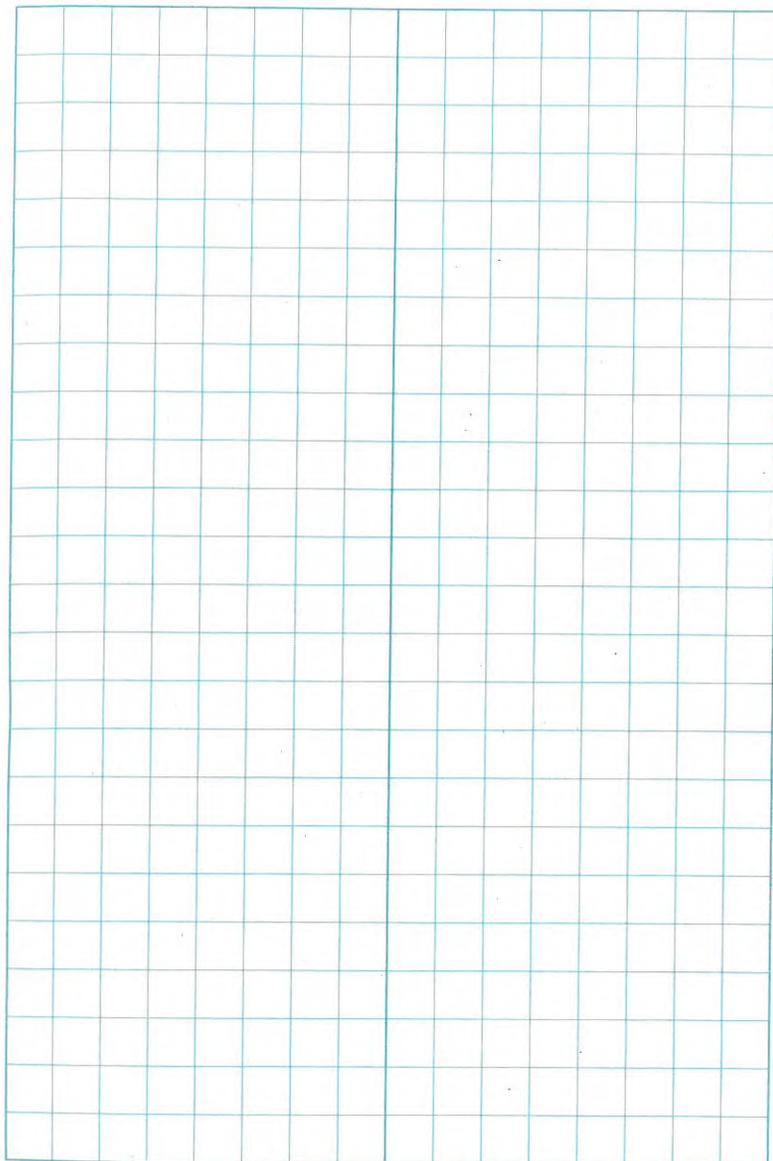
1835 All equipment and Encores packed.

1840 All offsite.

 10/13/16

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Project / Client \_\_\_\_\_



Location 80 Lister Ave. Newark, NJ Date 10/20/16

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Project / Client Tierra-NBSA Phase III

V3

Personnel: Julianne Hegarty (author) }  
Zach Leisure } Arcadis

SOW: bottle inventory, cut Lexan

Weather: partly sunny, 60s-70s

755 JH, ZL onsite, H+S meeting.

810 Bottle inventory of field blanks and sediment samples:

~~Re # 10219/16~~ Field blank:

5xHg

5xCH<sub>3</sub>Hg

2x 250 mL amber glass (unpreserved)

1x 250 mL plastic HNO<sub>3</sub>

1x 250 mL plastic NaOH

1x 120 mL amber H<sub>2</sub>SO<sub>4</sub>

28x 1L amber unpreserved

5x 1L amber HCl

6x VOA HCl

Trip Blanks:

4x Hg

4x CH<sub>3</sub>Hg

6 sets VOCs

- Also have 19 L DI water from lab and

~1 L Hexane from lab.

JH 10/20/16

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Location 80 Lister Ave. Newark, NJ Date 10/20/16  
Project / Client Tierra-NBSA Phase III  
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Bottle Inventory: Sediment

145 x 2 oz plastic for Hg and CH<sub>3</sub>Hg  
90 x 8 oz amber glass

269 x Encores (including EnCores taken by  
boat crew on Monday 10/17 and  
Tuesday 10/18)

180 x 16 oz clear glass.

900 Talk with Jamie Combes (Arcadis) via  
phone. No HCl received for CH<sub>3</sub>Hg field  
blanks. Jamie will check with lab and  
also confirm number of jars needed for  
Hg and CH<sub>3</sub>Hg per sediment sample.

905 Set up miter saw to cut lexan tubes.

930 Check lexan tubes: 18 x 8-foot long  
sections to be cut into two 3-foot  
sections and one 2-foot section each.

945 Begin cutting lexan.

1030 Additional lexan delivered. (38 x 8-foot)

1045 3 core catchers delivered from Arcadis  
Syracuse, NY office.

1115 Check core catchers against lexan -  
field crew observes that catcher is  
approx. 1/8" larger than inner diameter  
of lexan.

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Location 80 Lister Ave. Newark, NJ Date 10/20/16  
Project / Client Tierra-NBSA Phase III  
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1130 send photos of core catchers to Jamie  
Combes. Stop cutting cores until  
field crew receives confirmation.

1135 Make ice bags for packing coolers.

1235 Break for lunch.

1300 Resume cutting cores

1425 All lexan cores (56 total) cut. Break  
down saw and cardboard boxes.

1445 Remove cutting debris from lexan.

1550 Finish pre-cleaning lexan. Ready for  
full decon tomorrow.

1555 Decontaminate 8 petite and 2 standard  
ponar dredges by following procedure:  
- scrub with alkanox solution, rinse with  
tap water, rinse with 10% nitric acid,  
rinse with DI water, rinse with  
methanol, rinse with hexane, flush  
with DI water.

1655 Finish ponar decon. Wrapped in  
aluminum foil in plastic-lined enclosure.

1710 All offsite.

Rita ...

Location 80 Lister Ave. Newark, NJ Date 10/21/16

Project / Client Tierra-NBSA Phase III

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Personnel: Julianne Haggerty (author)  
Zach Leisure } Arcadis  
Nick Conrie }

SOW: Decon lexan and hacksaw blades, collect lexan field blank.

Weather: overcast, 60s-70s, rain.

735 All onsite, H+S meeting.

745 Place 5" lexan cores and core caps in labeled trash bags, stage in warehouse.

800 Begin lexan decon by the following procedure:

~~with~~ <sup>10/21/16</sup> Cap one end of lexan tube, pour in sufficient chemical to wash all interior surfaces. Cap other end. Rotate and invert capped tube. Pour out chemical. Repeat process in succession with following chemicals: alconox solution, tap water, 10% nitric acid, DI water, methanol, hexane. Rinse thoroughly with DI water. Stand cores vertically to dry <sup>in plastic-lined enclosure.</sup> Stage caps separately to dry on plastic-lined table.

1205 Break for lunch.

JH 10/21/16

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Project / Client Tierra-NBSA Phase III

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1230 Resume lexan decon.

1445 Lexan decon complete.

1450 JH collects field blank NB03153FB from lexan liner and cap. Procedure: pour lab-supplied DI water (or hexane) into lexan liner fitted with cap. Rotate 1 time. Transfer directly into lab-supplied pre-preserved bottlenware.

1455 ZL + NC decon hacksaw blades: scrub with alconox, rinse with tap water, rinse with 10% nitric acid, rinse with DI water, rinse with methanol, rinse with hexane, flush with DI water (~5x as much volume as chemicals).

1510 Hacksaw blade decon complete. Store on aluminum foil in plastic-lined enclosure to dry. Pack cores for boat on Monday: 20 x 3' segments, 10 x 2' segments.

1540 Eurofins courier onsite, drops off bottlenware. ZL checks pH of preserved blanks.

JH 10/21/16



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 Project / Client Tierra-NBSA Phase III

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ID	Analyte	pH	ok?
NB3153FB	TEPH-alk	1	yes
	TOC	1	yes
	cyanide	128	yes
	metals	1	yes

1600 Blank collection complete. NC offsite.  
~~1605~~ 10/21/16

1615 Eurofins courier offsite. Housekeeping.

1625 Bottle inventory: sediment:  
 180 x 16 oz. clear glass  
 270 Encores  
 5 sets VOC trip blanks.

1650 All offsite.

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Location 80 Lister Ave. Newark, NJ Date 10/25/16  
 Project / Client Tierra-NBSA Phase III

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Personnel: Julianne Haggarty (author)  
Zach Leasure  
Nick Comrie } Arcadis

Soil: sediment processing  
 Weather: sunny, 50s

730 All onsite, H+S meeting, sign custody transfer on individual core collection forms.

745 Review sampling procedure

800 Calibrate equipment.

810 Don Ryvek, review sampling procedure.

830 Alain Hebert (Arcadis) onsite, discuss sampling procedure.

900 Review sample jars needed for each sample, prepare to begin sampling.

10/25/16

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Location 80 Lister Ave. Newark, NJ Date 10/25/16  
 Project / Client Tierra-NBSA Phase III

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910 Begin processing Cores from 388:  
 Photograph cores before opening  
 (104-0001).  
 Fill EnCores for VOCs and TEPH-purgeables  
 Transfer 0-6" interval of each core  
 to stainless steel bowl. Photograph  
 before mixing (104-0002) and after  
 mixing (104-0003 and 104-0004). Fill  
 bottleware. Sample time = 0920.  
 See processing form for additional info.

Bottle	Weight	OK?
Teal 1	>300 <sup>2H</sup>	yes
Teal 2	>300	yes
Teal 3	>300	yes
Teal 4	>300	yes
8oz Amber	411.5	yes
Hg/MTg	120.6 <sup>2H</sup>	yes

1000 Finish processing 388, begin processing  
 385:  
 Photograph cores before opening.  
 (104-0005). Fill EnCores for VOCs  
 and TEPH-purgeables all from primary  
 core. Transfer 0-6" interval of each  
 core.

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 Project / Client Tierra-NBSA Phase III

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1000 cont'd. core to stainless steel bowl  
 Photograph before mixing (104-0006)  
 and after mixing (104-0007).  
 Fill bottleware. Sample time = 1020.  
 NBO3SEDDUP-07 collected.  
 See processing form for additional info.

Bottle	Weight	OK?
Teal 1	>300 <sup>2H</sup>	yes
Teal 2	>300	yes
Teal 3	>300	yes
Teal 4	>300	yes
8oz Amber	221.48	yes
Hg/MTg	124.89 <sup>2H</sup>	yes

Duplicate NBO3SEDDUP-07

Bottle	Weight	OK?
Teal 1	>300 <sup>2H</sup>	yes
Teal 2	>300	yes
Teal 3	>300	yes
Teal 4	>300	yes
8oz Amber	290.8	yes
Hg/MTg	123.09 <sup>2H</sup>	yes

10/25/16

1100 Finish processing 385, begin processing 387:  
 Photograph cores before opening (104-0008)  
 Fill Encores for VOCs and TEPH-purgeables  
 Transfer 0-6" interval of each core to stainless steel bowl. Photograph before mixing (104-0009) and after mixing (104-0010). Fill bottleware. Sample time = 1110. See processing form for additional info. 2L 10/25/16

Bottle	Weight	ok?	Weight
Teal 1	7300 <sup>ZH</sup>	yes	7300 <sup>ZH</sup>
Teal 2	7300 <sup>ZH</sup>	yes	7300
Teal 3	7300 <sup>ZH</sup>	yes	7300
Teal 4	7300 <sup>ZH</sup>	yes	7300
8 oz amber	7300 <sup>ZH</sup>	yes	7300
Hg/MHg	111.0 <sup>ZH</sup>	yes	113.30 <sup>ZH</sup>

1140 Alain Hebert off site.  
 1200 Break for lunch  
 1220 Resume sample processing: 384  
 Photograph cores before opening (104-0011)  
 Fill Encores for VOCs and TEPH-purgeables  
 Transfer 0-6" interval of each core to stainless steel bowls. Photograph before

mixing (104-0012) and after mixing (104-0013)  
 Fill bottleware. Sample time = 1235. See processing form for additional info.

Bottle	Weight	ok?
Teal 1	7300 <sup>ZH</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8 oz amber	7300	yes
Hg/MHg	111.0 <sup>ZH</sup>	yes

1250 Finish processing 384, begin processing 399.  
 Photograph cores before opening (104-0014)  
 Fill Encores for VOCs and TEPH-purgeables.  
 Transfer 0-6" interval of each core to stainless steel bowl. Photograph before mixing (104-0015) and after mixing (104-0016)  
 Fill bottleware. Sample time = 1305  
 See processing form for additional info.

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Bottle	Weight	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	289.6	yes
Hg/MeHg	138.0 <sup>2H</sup>	yes

1330: Lexan tube delivery. End processing 399. Begin processing 395.

Photograph cores before opening (104-0017)  
 Fill Encores for VOCs and TEPH purgeables.  
 Transfer 0-6" interval of each core to stainless steel bowl. Photograph before mixing (104-0018) and after mixing (104-0020).  
 Fill bottleware. Sample time = 1345.

See processing form for additional info.

Bottle	Weight	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MeHg	144.8 <sup>2H</sup>	yes

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Location 80 Lister Ave. Newark, NJ Date 6/25/16  
 Project / Client Tierra- NBSA Phase III

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1400: Finish processing 398. Begin processing 390.  
 Photograph cores before opening (104-0021).  
 Fill Encores for VOCs and TEPH purgeables.  
 Transfer 0-6" interval of each core to stainless steel bowl. Photograph before mixing (104-0022) and after mixing (104-0023). Fill bottleware.

Sample time = 1420

See processing form for additional info.

Bottle	Weight	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	<del>188.2</del> 7300	yes
Teal 3	<del>245.1</del> 7300	yes
TEPH Teal 4	7300	yes
8oz amber	218.4	yes
Hg/MeHg	135.4 <sup>2H</sup>	yes

\*note, sampling from only 1 tube

1440 Finish processing 390. Begin processing 399. Resample 399 from 1 tube.

2L 10/25/16

Rita in the Rain

Location 80 Lister Ave. Newark, NJ Date 10/25/17  
 Project / Client Terra-NBSA Phase III

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Photograph core before opening (104-0024)  
 Fill Encores for VOCs and TEPH purgeables.  
 Transfer 0-6" interval of each core to  
 stainless steel bowl. Photograph before  
 mixing (104-0025) and after mixing  
 (104-0026). Fill bottleware.  
 Sample time = 1455

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>24</sup>	yes
granite Teal 2	7300	yes
PCDDs etc. Teal 3	7300	yes
TEPH Teal 4	7300	yes
8oz amber	288.8	yes
Hg/MTg	131.76 <sup>24</sup>	yes

1500 Brian (Terra) and boat crew on-site.  
 End re-sampling 399

1510 Begin processing 386  
 Photograph core before opening (104-0027)  
 Fill Encores for VOCs and TEPH purgeables  
 Transfer 0-6" interval of each core to  
 stainless steel bowl. Photograph before mixing  
 (104-0028) and after mixing (104-0029).  
 Fill bottleware  
 Sample time = 1520  
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Bottle	Weight (g)	ok?
Teal 1	7300 <sup>24</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	133.5 <sup>24</sup>	yes
Hg/MTg	153.0	
End processing	386	
Begin processing	391	

1530 Brian M. Fucci (Terra), Pat Dougherty & Joe Fedele (Aresco) on-site.  
 1535 End processing 386  
 Begin processing 391

Photograph core before opening (104-0030)  
 Fill Encores for VOCs and TEPH purgeables  
 Transfer 0-6" intervals of each core to  
 stainless steel bowl. Photograph before  
 mixing (104-0031) and after mixing (104-0032)  
 Fill bottleware. Sample time = 1550

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>24</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MTg	116.0 <sup>24</sup>	yes
End processing	391	

1610 End processing 391 - 9 samples processed  
 10/25/16

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Location 80 Lister Ave. Newark, NJ Date 10/25/16Project / Client Tierra - NBSA Phase III

W/p

- 1615 Begin taping and cooler packing  
 \* 1555 JF and PD offsite.  
 1630 Eurofins courier onsite.  
 1705 Pine driver onsite, drops off MiniRAE  
 3000, takes old MiniRAE.  
 1715 Eurofins courier offsite. Pack Vista cooler.  
 1730 Vista cooler packed, make ice bags.  
 1750 BM offsite.  
 1810 All offsite.

JH  
 10/25/16

Location 80 Lister Ave. Newark, NJ Date 10/26/16 25Project / Client Tierra - NBSA Phase III

W/p

Personnel: Julianne Hagarty (author)  
 Nick Comrie  
 Zack Leisure } Arcadis

SOW: sediment processing  
 Weather: sunny, 40s

0730 JH, NC, ZL onsite. Calibrate PID and  
 multiRAE

0735 Brian Mikucki (Tierra) onsite.

0745 Amy Marie Arcadis/Dey (EPA) onsite.

0800 H+S meeting.

0810 Begin processing 409.

Photograph core before opening (104-0033)

Fill Encores for VOCs and TEPT  
 purgeables. Transfer 0-6" intervals of  
 each core to stainless steel bowl.

Photograph before mixing (104-0034)  
 and after mixing. Fill bottleware.

Sample time = 0830

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Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	250.9	yes
H <sub>2</sub> /M <sub>2</sub>	109.71 <sup>2H</sup>	yes

855: End processing 409  
EPA split taken; 2,4oz jugs

900: AI inside <sup>2H</sup>

~~Begin processing~~  
408 and 409 <sup>tube #2</sup> correctly combined.

Begin processing 408 from tube 1 primary  
Photograph core before opening (104-0036)

Fill Encores for VOCs and TBPH  
purgeables. Transfer 0-6" intervals of  
each core to stainless steel bowl.

Photograph before mixing (104-0037)  
and after mixing (104-0038).

Fill bottleware. Sample time = 930

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Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
GS Teal 2	273	yes
PCOD <sub>ok</sub> Teal 3	193	yes
TEPH <sub>ok</sub> Teal 4	133.1	yes
8oz amber	99	yes
H <sub>2</sub> /M <sub>2</sub>	108.5 <sup>2H</sup>	yes

0940 Begin re process of 409  
from primary core.

Photograph core before opening (104-0039)  
Fill Encores for VOCs and TBPH  
purgeables. Transfer 0-6" intervals of  
each core to stainless steel bowl. Photograph  
before mixing (104-0040) and after mixing  
(104-0041). Fill bottleware. Sample time  
= 1010

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
GS Teal 2	7300	yes
PCOD <sub>ok</sub> Teal 3	221	yes
TEPH <sub>ok</sub> Teal 4	186.2	yes
8oz amber	294.1	yes
H <sub>2</sub> /M <sub>2</sub>	112.0 <sup>2H</sup>	yes

JH 10/26/16  
Rite in the Rain

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1015 End reprocessing 404  
Begin sampling 407

Photograph core before opening (104-0042)

Fill Encores for VOCs and TEPH purgeables.

Transfer 0-6" <sup>corrected</sup> intervals of each core to stainless steel bowl. Photograph before mixing (104-0043) and after mixing (104-0044)

Fill bottleware. Sample time = ~~1030~~ 1130

Bottle	Weight (g)	ok?
Teal 1	7300	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MHg	114.7	yes

See processing form for additional info.

Note EPA split sample taken. Location 407

Collected 10/25/16 Processed 10/26/16 @ 11:30

1030: Break to clarify <sup>and discuss</sup> recovery amounts within cores. Call with EPA.

1040: ZL and NC wrap sample jars with tape and bubble wrap

1050: Andrew Clark (FTS) onsite.

\* 10/26/16

5/10

1105: Cores will be processed from 0-6" from core liner during processing

~~1110: Andy onsite 2L 10/20/16~~

1120: All Hebert off site

1135: End processing 407.  
Begin processing 406.

Photograph core before opening (104-0045)

Fill Encores for VOCs and TEPH purgeables. Transfer 0-6" intervals of each core to stainless steel bowl.

Photograph before mixing (104-0046) and after mixing (104-0047). Fill

bottleware. Sample time = 1150

Bottle	Weight (g)	ok?
Teal 1	7300	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MHg	123.4	yes

1200: End processing 406.

Begin processing 405.

Photograph core before opening (104-0048)

Fill Encores for VOCs and TEPH

JH 10/26/16

Rite in the Rain

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purgeables. Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0049) and after mixing (104-0050). Fill bottleware. Sample time = 1215.

Bottle	Weight (g)	okay?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MHg	112.4 <sup>2H</sup>	yes

see sampling sheet for additional info

1230: Break for lunch.

1300: Resume sampling processing

Begin processing 404 <sup>10/26/16</sup>  
 Photograph core before opening (104-0051). Fill Encores for VOCs and TEPH purgeables. Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0052) and after mixing (104-0053). Fill bottleware. Sample time = 1315. See processing

10/26/16

7/10

Bottle	Weight (g)	okay?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MHg	107.5 <sup>2H</sup>	yes

1325: End processing 404

Begin processing 401

Photograph core before opening (104-0054)  
 Fill Encores for VOCs and TEPH purgeables.  
 Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before (104-0055) and after mixing (104-0057). Fill bottleware.  
 Sample time = 1340. See processing sheets for additional info.

Bottle	Weight (g)	okay?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MHg	124.3 <sup>2H</sup>	yes

10/26/16 Rite in the Rain

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1400: Meeting with Julianne

1405: Resume sampling and processing

Begin <sup>processing 25/10/2016</sup> Sampling 400

Photograph core before opening (104-0058)

Fill Encores for VOCs and TEPT purgeables.

Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0059) and after mixing (104-0060).

Fill bottleware. Sample time = 1420.

See processing sheet for additional info.

Bottle	Weight (g)		ok?
Teal 1	7300	2H	yes
Teal 2	7300		yes
Teal 3	7300		yes
Teal 4	7300		yes
8oz amber	7300		yes
Hg/MHg	119.4	2H	yes

1440: End processing 400.

Begin processing 397

Photograph core before opening (104-0061).

Fill Encores for VOCs and TEPT purgeables.

Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0062)

JH 10/26/16

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and after mixing (104-0063). Fill bottleware.

Sample time = 1455. See processing sheet for additional info.

Bottle	Weight (g)	ok?
Teal 1	7300	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz amber	7300	yes
Hg/MHg	122.4	yes

1455: Amy Marie A.D. off-site

1500: Pat Dougher and Joe Fedele (Arcadis) onsite with cores collected today.

1515: End processing 397.

Begin processing 396.

Photograph core before opening (104-0064). Fill Encores for VOCs and TEPT purgeables. Transfer

0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0065) and after

mixing (104-0066). Fill bottleware. Sample time = 1530. See processing sheet for

additional info.

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Rite in the Rain

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Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
Sox canister	7300	yes
Hg/MHg	124.4 <sup>2H</sup>	yes

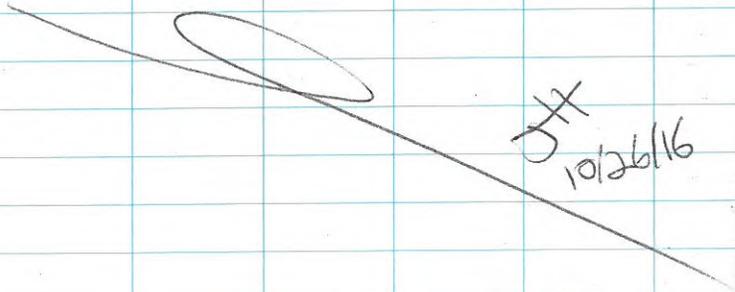
1520: Boat crew off-site

1545: End sample processing, begin packing coolers.

~~164~~

1645: Eurofins lab on-site. Waiting for COCs.

1735: Eurofins courier offsite. Confirm that paperwork is complete.

1815 Arcadis and Andrew Clark offsite.  
Brian Mikuck: still onsite.

  
 JH  
 10/26/16

Location \_\_\_\_\_ Date \_\_\_\_\_

Project / Client \_\_\_\_\_

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Bottle	Weight (g)	ok?
Teal 1	7300 <sup>24</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
Teal 4	7300	yes
8oz canister	7300	yes
Hg/MHg	124.4 <sup>24</sup>	yes

1520: Boat crew off-site

1545: End sample processing, begin packing coolers.

~~164~~

1645: Eurofins lab on-site. Waiting for COCs.

1735: Eurofins courier offsite. Confirm that paperwork is complete.

1815 Arcadis and Andrew Clark offsite.  
Brian Mikucki still onsite.JH  
10/26/16Location 80 Lister Ave Newark, NJ Date 10/27/16Project / Client Tierra-NBSA Phase III

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Personnel: Julianne Hergarty (author) }  
Zach Leisner } Arcadis  
Nick Conrie }

SOW: sediment processing

Weather: rain, 40s

730 JH, ZL, NC onsite, H&amp;S meeting, calibrate equipment.

750 Don PPE

800 Starting today processing only from primary core.

805 Begin processing #402

Photograph core before opening (104-0067). F. 11

Encores and TEPIH purgeables. Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0068) and after mixing (104-0069) Fill bottleware.

Sample time = 820. See processing sheet for details.

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>24</sup>	yes
Teal 2	7300	yes
Teal 3	7300	yes
TEPIH Teal 4	213.1	yes
8oz canister	237.4	yes
Mg/MHg	137.6 <sup>24</sup>	yes

\* 10/27/16  
\* site in the rain

2/12

825 Enrique Castro (Tierra) and Jordan Goldstein (LBG) onsite.

835 End processing 402.

Begin processing 394

Photograph before opening (104-0070). Fill Encores and TEPH purgeables. Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0071) and after mixing (104-0072). Fill bottleware. Sample time = 850. See processing sheet for additional info.

Bottle	Weight (g)	okay
Teal 1	7300 2H	yes
Teal 2	253.8	yes
Teal 3	209.8	yes
Teal 4	86.8	yes
8oz amber	71.9	yes
Hg/MHg	128.7 2H	yes

EPA split taken on 394

900 End processing 394. Begin processing 398.

Photograph before opening (104-0073). Fill Encore and TEPH purgeables. Transfer 0-6" intervals of each core to stainless steel bowl. Photograph before mixing (104-0074) and after mixing (104-0075). Fill bottleware.

JH 10/27/16

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Sample time = 915. See processing sheet for additional info.

Bottle	Weight (g)	okay
Teal 1	7300 2H	yes
Teal 2	7300	yes
Teal 3	256.2	yes
Teal 4	85.4	yes
8oz amber	185.1	yes
Hg/MHg	121.2 2H	yes

930 Kevin Gandhi onsite

925 End processing 398. Begin processing 393

2L 10/27/16 Photograph before opening (104-0076). Fill Encores and TEPH purgeables. Transfer 0-6" interval of primary core to stainless steel bowl. Photograph before mixing (104-0077) and after mixing (104-0078). Fill bottleware. Sample time =

940. See processing sheet for additional info.

Bottle	Weight (g)	okay
Teal 1	7300g 2H	yes
Teal 2	7300g	yes
Teal 3	267.1	yes
Teal 4	90.9	yes
8oz amber	82.0	yes
Hg/MHg	120.1 2H	yes

EPA split on 393

JH 10/27/16 *Rate in the Rain.*

Location 80 Lister Ave Newark, NJ Date 10/27/16Project / Client Tierra-NBSA Phase III

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950 End processing 393. Begin processing 392  
 Photograph before opening (104-0079). Fill Encores  
 and TEPH purgeables. Transfer 0-6" intervals  
 of cores to stainless steel bowl. Photograph  
 before mixing (104-0080) and after mixing (104-0081)  
 Fill bottleware. Sample time = 1010. See processing  
 sheet for additional info.

Bottle	Weight (g)		okay?	
Teal 1	7300	2H	yes	
Teal 1	7300	2H	yes	
Teal 1	7300	2H	yes	
Teal 2	276.1		yes	GS
Teal 2	7300		yes	GS
Teal 2	7300		yes	GS
Teal 3	216.6		yes	probs etc.
Teal 3	203.5		yes	
Teal 3	231.3		yes	*
Teal 4	70.0		yes	TEPH
Teal 4	73.3		yes	
Teal 4	93.9		yes	*
8oz, amber	73.7		yes	
8oz, amber	111.0		yes	
8oz, amber	136.9		yes	
Hg/MHg	126.0	2H	yes	
Hg/MHg	122.6	2H	yes	
Hg/MHg	126.6	2H	yes	

JH 10/27/16

Location 80 Lister Ave Newark, NJ Date 10/27/16<sup>39</sup>Project / Client Tierra-NBSA Phase III

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at 10/27/16

Bottle	Weight (g)	okay?

MS/MSD taken on 392

1045: End processing 392. Begin processing 389  
 Photograph before opening (104-0082). Fill Encores  
 and TEPH purgeables. Transfer 0-6" interval of  
 primary core to stainless steel bowl. Photograph  
 before mixing (104-0083) and after mixing (104-0084)  
 Fill bottleware. Sample time = 1100. See  
 processing sheet for additional info.

Bottle	Weight (g)		okay?	
Teal 1	7300	2H	yes	
Teal 2	273.4		yes	GS
Teal 3	233.4		yes	PCODs etc.
Teal 4	88.7		yes	TEPH
8oz, amber	64.2		yes	
Hg/MHg	116.8	2H	yes	

1110: End processing 389. Begin processing 383  
 Photograph before opening (104-0085). Fill Encores and  
 TEPH purgeables. Transfer 0-6" interval of primary  
 core to stainless steel bowl. Photograph before  
 mixing (104-0086) and after mixing (104-0087). Fill

JH 10/27/16

Rite in the Rain

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bottleware. Sample time = 1130. See processing

sheet for additional info

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	276.6	yes
Teal 3	221.8	yes
Teal 4	117.3	yes
8oz amber	195.7	yes
Hg/MHg	109.8 <sup>2H</sup>	yes

1135: End processing 383

1140: Break for lunch.

1200 Don PPE.

1205: Start processing 403

Photograph before opening (104-0088). Fill Encores and TEPH purgeables. Transfer 0-6" interval of cores to stainless steel bowl. Photograph

before mixing (104-0089) and after mixing (104-0090)

Fill bottleware. Sample time 1220. See processing sheet for additional info

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	275.1	yes
Teal 4	170.2	yes

5<sup>th</sup> 10/27/16Location 80 Lister Ave Newark, NJ Date 10/27/16Project / Client Tierra-NBSA Phase III

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Bottle	Weight (g)	ok?
8oz amber	217.7	yes
Hg/MHg	119.1 <sup>2H</sup>	yes

Duplicate sample taken: NBO3SEEDUP-08

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes
Teal 3	241.9	yes
Teal 4	150.6	yes
8oz amber	121.3	yes
Hg/MHg	119.5 <sup>2H</sup>	yes

1235: Kevin Gandhi off site.

1240: End processing 403. Start processing 379

Photograph before opening (104-0091). Fill Encores and TEPH purgeables. Transfer 0-6" interval to stainless steel bowl. Photograph before mixing (104-0092) and after mixing (104-0093). Fill bottleware. Sample time

1250. See processing sheet for additional info.

Bottle	Weight (g)	ok?
Teal 1	7300 <sup>2H</sup>	yes
Teal 2	7300	yes

5<sup>th</sup> 10/27/16

Rite in the Rain

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Bottle	Weight (g)	ok?	
Teal 3	245.0	yes	PCDDs etc.
Teal 4	203.6	yes	TEPH
8oz amber	189.1	yes	
Hg/MHg	135.2 <sup>2H</sup>	yes	

1255 End processing 379. Begin processing 375. Boat crew on-site

Photograph before opening (104-0094). Encores and TEPH purgeables filled. Transfer 0-6" interval to stainless steel bowl. Photograph before mixing

(104-0095) and after mixing (104-0096). Fill bottle ware. Sample time = 1315. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>2H</sup>	yes	
Teal 2	237.1	yes	GS
Teal 3	178.4	yes	PCDDs etc.
Teal 4	118.2	yes	TEPH
8oz amber	180.6	yes	
Hg/MHg	91.3 <sup>2H</sup>	yes	

1315: Boat crew off-site

1320: End processing 375

Begin processing 371

JH 10/27/16

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Photograph before opening (104-0097). Filled Encores and TEPH purgeables. Transfer 0-6" interval to stainless steel bowl. Photograph before mixing (104-0098) and after mixing (104-0099). Fill bottle ware. Sample time = 1340. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300	yes	
Teal 2	7300	yes	GS
Teal 3	255.2	yes	PCDDs etc.
Teal 4	114.3	yes	TEPH
8oz amber	127.0	yes	
Hg/MHg	109.9	yes	

EPA split sample taken on 371

1355: End processing 371. Begin processing 370

Photograph before opening (104-0100). Filled Encores and TEPH purgeables. Transfer 0-6" interval to stainless steel bowl. Photograph before mixing (104-0101) and after mixing (104-0102). Fill bottle ware.

Sample time = 1410. See processing sheet for additional info.

JH 10/27/16

Location 50 Lister Ave, Newark NJ Date 10/27/16Project / Client Tierra-NBSA Phase III

10/12

Bottle	Weight (g)	ok?	
Teal 1	7300	yes	
Teal 2	7300	yes	
Teal 3	263.0	yes	PCDDs &
Teal 4	201.0	yes	TEPH
8oz amber	1624	yes	
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	127.0	yes	

1420 End processing, make ice bags, wrap sample jars in bubble wrap and ziplock bags.

1500 EC and JG offsite.

1525 Pack coolers for Eurofins + Vista.

1555 Set aside deconned bowls and spoons for use tomorrow (12 bowls, 12 large and 12 small spoons). All others remaining from last decon will be re-deconned or removed from equipment set.

1610 Begin equipment decon (bowls and spoons). Used and unused spoons and bowls (all equipment stainless steel) decontaminated by the following procedure:

# 10/27/16

Location 50 Lister Ave Newark NJ Date 10/27/16Project / Client Tierra-NBSA Phase III

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- 1610 cont'd.
- remove gross sediment contamination by scraping with <sup>gloved</sup> hand or spoon into labeled sediment drum.
  - rinse with tapwater.
  - scrub with alcanox solution.
  - rinse with tapwater.
  - rinse with 10% nitric acid.
  - rinse with DI water.
  - rinse with methanol.
  - rinse with hexane.
  - flush with DI water (5x volume of chemicals).
  - air dry on aluminum foil in plastic-lined enclosure, cover loosely with aluminum foil (shiny side out).
- 1620 Petite ponar dredges removed from service, staged on pallet for return to Pine tomorrow.
- 1655 Eurofins courier onsite, drops off bottles, picks up today's samples
- 1720 Eurofins driver offsite, check cores collected today (staged in fridge.)
- 1735 Bottle inventory of bottlenecks delivered today.

# 10/27/16

Rate in the rain.



46 Location 30 Lister Ave Newark, NJ Date 10/27/16  
Project / Client Tierra - NBSA Phase III

12/12

### Bottle Inventory

35 L DI water } blank liquid, staged  
8 L Hexane } in refrigerator.

10 x 500 mL plastic - Hg + CH<sub>3</sub>Hg

5 x Hg trip blank

5 x CH<sub>3</sub>Hg trip blank

15 x 1L amber unpreserved

6 x 1L amber HCl

18 x VOA HCl

3 x 120 mL H<sub>2</sub>SO<sub>4</sub>

3 x 250 mL HNO<sub>3</sub>

3 x 250 mL NaOH

6 x 250 mL amber unpreserved

3 sets VOC trip blank.

1825 Decon complete. Confirm that papermark is complete.

1845 All offsite.

~~10/27/16~~

47 Location 30 Lister Ave Newark, NJ Date 10/28/16  
Project / Client Tierra - NBSA Phase III

1/11

Personnel: Julianne Haggarty (author) }  
Zach Leisure } Arcadis  
Nick Comrie }

SOW: sediment processing, blank collection  
Weather: partly sunny, 40s-50s

715 Nick Comrie (Arcadis) and Andrew Clark (FTS) onsite.

725 Zach Leisure and Julianne Haggarty (Arcadis) onsite

730 make ice bags. Waiting for EPA observer.

755 Pine driver onsite, drops off one standard ponar, picks up 8 petite ponars.

800 Pine driver offsite. Continue ice bags.

830 Don PPE for sediment processing, H<sub>2</sub>S meeting.

845 Jordan (EPA) on-site

Start processing 312

Photograph before opening (104-0103). Encores and TEM purgeables filled. Transfer 0-6" interval to stainless steel bowl. Photograph before mixing (104-0104) and after mixing (104-0105). Fill bottleware. Sample time ~ 900

See processing sheet for additional info.

Bottle	Weight (g)	Site?	
Teal 1	7300	24	yes
Teal 2	2625		yes

10/28/16

Rite in the Rain

Location 80 Lister Ave, Newark NJ Date 10/28/16Project / Client Tierra - NBSA Phase III

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Bottle	Weight (g)	ok?	
Teal 3	270.2	yes	PCODs, etc.
Teal 4	208.0	yes	TEPH
8oz amber	<sup>24</sup> <del>208</del> 248.9	yes	
Hg/MLHg	118.1 <sup>24</sup>	yes	

900: Lexan core delivery

910: ~~Abhi~~ <sup>24</sup> Abhi (Tierra) onsite920: Begin mock composite sample processing:  
Photographs and descriptions <sup>24</sup> 10/28/16

930 Karim Gandhi (Antecadit) onsite

935 Begin processing 311Photograph before opening (104-0107). Encores and  
TEPH purgeables filled. Transfer 0-6" interval to  
stainless steel bowl. Photograph before mixing (104-0108)  
and after mixing (104-0109). Fill bottleware. Sample time =

950. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>24</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	210.4	yes	PCODs, etc.
Teal 4	101.6	yes	TEPH
8 oz amber	118.8	yes	
Hg/MLHg	107.3 <sup>24</sup>	yes	<sup>24</sup> 10/28/16

Location 80 Lister Ave, Newark NJ Date 10/28/16Project / Client Tierra - NBSA Phase III

3/11

945 Begin processing 310Photograph before opening (104-0110). Encores and TEPH  
purgeables filled. Transfer 0-6" interval to stainless steel  
bowl. Photograph before mixing (104-0111) and after mixing  
(104-0112). Fill bottleware. Sample time = 1010. See  
processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>24</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	220.9	yes	PCODs, etc.
Teal 4	201.5	yes	TEPH
8oz amber	147.7	yes	
Hg/MLHg	131.7 <sup>24</sup>	yes	

1020 Begin processing 309Photograph before opening (104-0113). Encores and TEPH  
purgeables filled. Transfer 0-6" interval to stainless steel  
bowl. Photograph before mixing (104-0114) and after mixing  
(104-0115). Fill bottleware. Sample time = 1035.

See processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>24</sup>	yes	
Teal 2	7300	yes	
Teal 3	274.8	yes	PCODs, etc.

<sup>24</sup> 10/28/16

Rite in the Rain

50 Location 80 Lister Ave, Newark, NJ Date 10/28/16

Project / Client Tierra - SBNA Phase II

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Bottle	Weight(g)	ok?	
Teal 4	177.6	yes	TEPH
8 oz number	132.8	yes	
Hg/MHg	142.8 <sup>2nd</sup>	yes	

Photo 104-0116 shows excess amount after filling minimum must amount for Aradior sampled during 309.

1045: Begin sample processing 313

Photograph before opening (104-0117). Encores and TEPH

purgeables filled. Transfer 0-6" interval to stainless steel bowl

Photograph before mixing (104-0118) and after mixing (104-0119)

Fill bottleware. Sample time = 1100. See processing sheet for additional info.

Bottle	Weight(g)	ok?	
Teal 1	730.1 <sup>2nd</sup>	yes	
Teal 2	270.9	yes	GS
Teal 3	222.3	yes	PCDDs, etc.
Teal 4	278.3	yes	TEPH
8 oz number	276.1	yes	
Hg/MHg	113.4 <sup>2nd</sup>	yes	

1100 Andrew Clark (ETS) offsite.

1110 Begin processing 377

Photograph before opening (104-0120). Encores and TEPH  
10/28/16

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purgeables filled. Transfer 0-6" interval to stainless steel bowl. Photograph before mixing (104-0121) and after mixing (104-0122). Fill bottleware. Sample time = 1125. See processing sheet for additional info.

Bottle	Weight(g)	ok?	
Teal 1	730.0 <sup>2nd</sup>	yes	
Teal 1	730.0 <sup>2nd</sup>	yes	
Teal 1	730.0 <sup>2nd</sup>	yes	
Teal 2	730.0	yes	GS
Teal 2	266.7	yes	GS
Teal 2	276.7	yes	GS
Teal 3	236.3	yes	PCDDs, etc.
Teal 3	261.8	yes	
Teal 3	215.9	yes	*
Teal 4	156.6	yes	TEPH
Teal 4	121.9	yes	
Teal 4	128.3	yes	*
8 oz number	99.6	yes	
8 oz number	103.8	yes	
8 oz number	113.4	yes	
Hg/MHg	121.6 <sup>2nd</sup>	yes	
Hg/MHg	122.4 <sup>2nd</sup>	yes	
Hg/MHg	122.8 <sup>2nd</sup>	yes	

EPA split taken: 377

10/28/16 *rite in the rain*

Location 80 Lister Ave, Newark NJ Date 10/28/10

Project / Client Terra - SBNA Phase III

6/11

1135: Pinc returned 3 petite ponars

1155: AA+KG offsite for lunch

1200: Break for lunch, NC offsite for lunch?

1210 AA+KG onsite

1220 NC onsite

1235 KG offsite. ZL+JH test ponar blank collection procedure by pouring a 1L <sup>10/28/16</sup> bottle of tap water through not-yet-decontaminated petite ponar into spare 1-L amber glass bottle. Method is effective for use.

1255 Resume processing. Start processing 307

Photograph before opening (104-0123), Encores and TEPH purgeables filled. Transfer 0-6" interval to stainless steel bowl. Photograph before mixing (104-0124) and after mixing (104-0125). Fill bottles. Sample time = 1315. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>2#</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	231.7	yes	PCDDs etc.
Teal 4	277.0	yes	TEPH

10/28/16

Location 80 Lister Ave, Newark NJ Date 10/28/10

Project / Client Terra - SBNA Phase III

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Bottle	Weight (g)	ok?
Buzumber	7300	yes
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	136.6 <sup>2#</sup>	yes

1325 Begin processing 308

Photograph before opening (104-0127). Encores and TEPH purgeables filled. Transfer 0-6" interval of cores to stainless steel bowl. Photograph before mixing (104-0128) and after mixing (104-0129). Fill bottles. Sample time 1340. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>2#</sup>	yes	
Teal 2	7300	yes	GC
Teal 3	209.8	yes	PCDDs, etc.
Teal 4	209.9	yes	TEPH
Buzumber	108.3	yes	
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	102.6 <sup>2#</sup>	yes	

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>2#</sup>	yes	
Teal 2	7300	yes	GC
Teal 3	233.6	yes	PCDDs, etc.
Teal 4	154.4	yes	TEPH
Buzumber	111.1	yes	
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	103.2 <sup>2#</sup>	yes	

For Duplicate: NBO35EDUP-09 <sup>10/28/16</sup> *Return to Rain*

8/11

1400: Begin processing 378

Photograph before opening (104-0130). Encores and TEPH purgeables filled. Transfer 0-6" interval of core to stainless steel bowl. Photograph before mixing (104-0131) and after mixing (104-0132). Fill bottleware. Sample time 1415. See

processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>th</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	208.9	yes	PCODs, etc.
Teal 4	119.8	yes	TEPH
Soz amber	135.2	yes	
Hg/MHg	129.3 <sup>th</sup>	yes	

1422: Begin processing 376

Photograph before opening (104-0133). Encores and TEPH purgeables filled. Transfer 0-6" interval of core to stainless steel bowl. Photograph before mixing (104-0134) and after mixing (104-0135). Fill bottleware. Sample time 1435. See

processing sheet for additional info.

Bottle	Weight (g)	ok?	
Teal 1	7300 <sup>th</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	201.9	yes	PCODs, etc.

10/28/16

9/11

Bottle	Weight (g)	ok?	
Teal 4	249.1	yes	TEPH
Soz amber	180.0	yes	
Hg/MHg	107.1 <sup>th</sup>	yes	

1450 Sample collection complete, prepare for ponar decon and equipment blank collection.

1500 Begin ponar decon: scrub with alconox solution, rinse with tap water, rinse with 10% nitric acid, rinse with DI water, rinse with methanol, rinse with hexane, flush with DI water (5x). ZL and NC decon ponars.

1525 JH collects equipment blank from stainless steel bowl and spoon deconned yesterday (10/27/16). Pour lab-supplied DI water into bowl, stir with spoon, transfer directly into lab-supplied pre-preserved bottleware. NB3154FB.

1535 Ponar decon complete.

JH 10/28/16

Site in the Rain

10/11

1550 Collect ponar blank: NB3155FB.  
 Pour lab-supplied DI water (or hexane) into petite ponar through top (screens removed) and pour through slot at bottom into lab-supplied pre-preserved bottles (photo #104-0136+104-0137). ZL+NC collect.

1600 Jordan Goldstein (LBG) offsite.

1610 Abhi Acharya (Tierra) offsite.

1615 Equipment blank collection complete.

1620 Ponar blank collection complete, pack coolers for Eurofins.

1640 Eurofins courier onsite. JH checks pH of blanks:

ID	Analyte	preservative	pH	ok?
NB3154FB	TEPHalk	HCl	1	yes
	TOC	H <sub>2</sub> SO <sub>4</sub>	1	yes
	CN	NaOH	12.8	yes
	Metals	HNO <sub>3</sub>	1	yes
NB3155FB	TEPHalk	HCl	1	yes
	TOC	H <sub>2</sub> SO <sub>4</sub>	1	yes
	CN	NaOH	12.8	yes
	Metals	HNO <sub>3</sub>	1	yes

JH 10/28/16

11/11

1700 ZL offsite. Continue packing coolers.

1730 Eurofins courier offsite, pack Vista cooler (will stay in refrigerator over weekend for shipment Monday.)

1745 Housekeeping.

1810 NC + JH offsite.

JH 10/28/16

Location 80 Lister Ave. Newark, NJ Date ~~10/12~~ <sup>JH</sup> 11/1/16Project / Client Tierra-NBSA Phase III

1/4

Personnel: Julianne Haggerty (author)  
 Zach Leisure } Records  
 Nick Comrie }

SOW: cut and decon Lexan, field blank.

Weather: sunny, 40s-50s.

730 JH+ZL onsite, setup miter saw.

740 NC onsite, H+S meeting.

755 ZL sets up decon room, NC+JH begin cutting lexan.

840 Begin decon of lexan liners and caps:

Cap one end of tube, pour in sufficient chemical to wash all interior surfaces.

Cap other end. Rotate and invert capped tube. Pour out chemical. Repeat process in succession with following chemicals:

alkox solution, DI water, 10% nitric acid, DI water, methanol, hexane, Rinse thoroughly with DI water. Stand cores vertically to dry in plastic-lined enclosure. Stage caps separately to dry on a plastic-lined table.

JH 11/1/16

Location 80 Lister Ave. Newark, NJ Date 11/1/16Project / Client Tierra-NBSA Phase III

2/4

1000 Collect NB3156 FB. NC collects field blank. ZL and JH continue decontamination. Blank collected from decontaminated lexan liner and cap. Procedure: pour lab-supplied DI water (or hexane) into lexan liner fitted with cap. Rotate one time. Transfer directly to lab-supplied pre-preserved bottleware.

1050 Blank collection complete, continue decon.

1200 Decon complete, break for lunch. NC offsite.

1220 NC onsite

\* Note 112 x 2-foot lengths of lexan were cut and decontaminated today.

1240 Breakdown cardboard boxes from Lexan.

1255 Begin breaking down core liners.

1330 JH offsite to Home Depot. ZL+NC pack coolers

1435 JH onsite.

ID	Analyte	preservation	pH	ok?
NB3156FB	TEPH-nH	HCL	1	yes
	TOC	H <sub>2</sub> SO <sub>4</sub>	1	yes
	CN	NaOH	12.3	yes
	Metals	HNO <sub>3</sub>	1	yes

JH 11/1/16

Site in the Rain.

60 Location 80 Lister Ave. Newark, NJ Date 11/1/16

Project / Client Tierra - NBSA Phase III

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1515 All coolers packed, continue breaking down spent core liners.

1550 All sediment removed from core liners. Document on drum log.

1555 Eurofins courier onsite, drops off coolers.

1610 Boat crew onsite, drops off cores. <sup>\* Brian M. Fuchs</sup> (Tierra) onsite

1630 Boat crew offsite. ZL+NC do bottle inventory of bottles delivered today.

1635 JH decons drill bits - place in bowl, wash with alconox, tap water, rinse with 10% nitric acid, DI water, methanol, and hexane. Thoroughly flush with DI water. Set on aluminum foil in plastic-lined enclosure.

1655 Drill bit decon complete.

1705 Bottle inventory complete. JH checks cores in refrigerator.

1715 Call Jamie Cambes (Aresdi's) to discuss drill bit procedure to drain water from cores.

1720 ZL+NC offsite.

1740 BM offsite.

1750 JH offsite.

JH 11/1/16

61 Location 80 Lister Ave. Newark, NJ Date 11/1/16

Project / Client Tierra - NBSA Phase III

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### Bottle Inventory

215 x EnCore

100 x 8oz clear glass

32 x 16oz clear glass

70 x 8oz amber glass (Vista)

5 x Hg trip blank

5 x CH<sub>3</sub>Hg trip blank

7 x VOA trip blank sets

12 x 40 mL VOA HCl

2 x 120 mL H<sub>2</sub>SO<sub>4</sub>

18 x 1L amber unpreserved

8 x 1L amber HCl

2 x 250 mL plastic NaOH

2 x 250 mL plastic HNO<sub>3</sub>

4 x 250 mL amber unpreserved.

JH 11/1/16

62 Location 80 Lister Ave. Newark, NJ Date 11/2/16

Project / Client Tierra - NBSA Phase III

1/13

Personnel: Julianne Hagerly (author)  
Zach Loisure } Arcadi's  
Nick Comrie }  
Cliff Firstenberg (Tierra)

SOW: sediment processing

Weather: sunny, 50s-60s

735 JH, ZL, CF onsite. ZL calibrates PID +  
Mult. RAE.

740 NC onsite, H+S meeting.

800 Dan truck, begin sample processing

805 Begin processing 314

Photograph before opening (104-0136). Encases and TEPH  
purgeables filled. Transfer 0-6" interval into stainless  
steel bowl. Photograph before mixing (104-0139) and after  
mixing (104-0140). Fill bottleware. Sample time 815

See processing sheet for additional info.

Bottle	Weight (g)	ok?	
8oz Teal 1	7300 <sup>zu</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	266.2	yes	PCDDs etc.
Teal 4	190.7	yes	TEPH

11/2/16

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Project / Client Tierra - NBSA Phase III

2/13

Bottle	Weight (g)	ok?
8 oz teal	264.5	yes
Hg/MHg	109.9 <sup>zu</sup>	yes

825 Jordan (EPA) on-site. Finish  
processing 314

830 Begin processing 315

Photograph before opening (104-0141). Encases and TEPH  
purgeables filled. Transfer 0-6" interval into  
stainless steel bowl. Photograph before mixing  
(104-0142) and after mixing (104-0143). Fill bottleware

Sample time 845 See processing sheet for additional info.

Bottle	Weight (g)	ok?	
8oz Teal 1	7300 <sup>zu</sup>		GS PCDDs etc. TEPH
Teal 2	7300		
Teal 3	284.7		
Teal 4	113.8		
8oz amber	829		
Hg/MHg	111.1 <sup>zu</sup>		

EPA split taken on 315

850 End processing 315

Begin processing 316

Photograph before opening (104-0144). Encases and TEPH  
purgeables filled. Transfer 0-6" interval into

11/2/16

Rite on the Rain

64 Location 80 Lister Ave, Newark NJ Date 11/2/16  
 Project / Client Tierra-NBSA Phase III  
 3/13

1 stainless steel bowl. Photograph before mixing (104-0145) and after mixing (104-0146). Fill bottleware. Sample time 905  
 See processing sheet for additional info

Bottle	Weight (g)	ok?	
8oz Teal 1	7300 2H	yes	GS PLOS etc. TEPH
Teal 2	7300	yes	
Teal 3	224.9	yes	
Teal 4	173.5	yes	
8oz amber	152.7	yes	
1kg/MHy	101.2 2H	yes	

900: End processing 316. Begin processing 317

915: Kunn Gandhi onsite

Photograph before opening (104-0147). Encases and TEPH purgenables filled. Transfer 0-6" interval into stainless steel bowl. Photograph before mixing (104-0148) and after mixing (104-0149). Fill bottleware  
 Sample time 920. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
8oz Teal 1	7300 2H	yes	GS ↙ yes yes yes
8oz Teal 1	7300 2H	yes	
8oz Teal 1	7300 2H	yes	
Teal 2	7300	X	
Teal 2	7300	X	
Teal 2	7300	X	

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 Project / Client Tierra-NBSA Phase III  
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Bottle	Weight (g)	ok?	
Teal 3	273.8	yes	PLOS etc X TEPH X
Teal 3	237.4	yes	
Teal 3	261.5	yes	
Teal 4	247.3	yes	
Teal 4	215.9	yes	
Teal 4	151.2	yes	
8oz amber	129.4	yes	
8oz amber	124.4	yes	
8oz amber	160.5	yes	
1kg/MHy	104.4 2H	yes	
1kg/MHy	107.7 2H	yes	
1kg/MHy	109.8 2H	yes	

MS/MSD taken @ 317

950 End processing 317.

Begin processing 318

Photograph before opening (104-0150). Encases and TEPH purgenables filled. Transfer 0-6" interval into stainless steel bowl. Photograph before mixing (104-0151) and after mixing (104-0152). Fill bottleware. Sample time 1005. See processing sheet for additional info.

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Bottle	Weight (g)	ok?	
8oz Teal 1	730.0 <sup>2H</sup>	yes	
Teal 2	730.0	yes	GS
Teal 3	232.2	yes	PCDDs etc.
Teal 4	164.3	yes	TEPH
8oz amber	87.5	yes	
Hg/MeHg	100.7 <sup>2H</sup>	yes	

1010 End processing 318

Begin processing 319

Photograph before opening (104-0153). Encases and TEPH purgeables filled. Transfer 0-6" interval into stainless steel bowl. Photograph before mixing (104-0154) and after mixing (104-0155). Fill bottleware. Sample time 1025. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
8oz Teal 1	730.0 <sup>2H</sup>	yes	
Teal 2	274.6	yes	GS
Teal 3	238.5	yes	PCDDs etc.
Teal 4	184.3	yes	TEPH
8oz amber	185.4	yes	
Hg/MeHg	108.2 <sup>2H</sup>	yes	

1030 End processing 318

Begin processing 320

JH 11/2/16

67 Location 80 Lister Ave, Newark NJ Date 11/2/16

Project / Client Tierra - NBSA Phase III

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Photograph before opening (104-0156). Encases and TEPH purgeables filled. Transfer 0-6" interval into stainless steel bowl. Photograph before mixing (104-0157) and after mixing (104-0158). Fill bottleware. Sample time 1045. See processing sheet for additional info.

Bottle	Weight (g)	ok?	
8oz Teal 1	730.0 <sup>2H</sup>	yes	
Teal 2	272.6	yes	GS
Teal 3	240.2	yes	PCDDs etc.
Teal 4	216.8	yes	TEPH
8oz amber	126.6	yes	
Hg/MeHg	105.9 <sup>2H</sup>	yes	

1045 End processing 320. Processing staff take break

1100 Processing begins for 321

Photograph before opening (104-0159). Encases and TEPH purgeables filled. Transfer 0-6" interval into stainless steel bowl. Photograph before mixing (104-0160) and after mixing (104-0161). Sample time 1110. See processing sheet for additional info.

JH 11/2/16

Rita or Rain

68 Location 80 Lister Ave, Newark NJ Date 11/2/16

Project / Client Terra-NBSA Phase III

7/13

Bottle	Weight (g)	OK?	
8oz Teal 1	>300 <sup>2H</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	226.2	yes	PCDD etc
Teal 4	134.8	yes	TEPH
8oz amber	87.28	yes	
H <sub>2</sub> /mg	113.1 <sup>2H</sup>	yes	

EPA spill sample collected

1115 End processing 321

1115 Begin processing #115 322

photographs before opening (104-0162)\*

Encores and TEPH Purgeables filled

0.0-0.5' transferred to stainless steel bowl

Photo graph before mixing (104-0163)

After mixing (104-0164). Fill bottleware

Sample time 1130. See processing sheet for additional info

Bottle	Weight (g)	OK?	
8oz Teal 1	>300 <sup>2H</sup>	yes	
Teal 2	<del>229</del> 259.7	yes	GS, PCDD etc, TEPH
Teal 3	248.3	yes	
Teal 4	146.4	yes	
8oz amber	153.81	yes	
H <sub>2</sub> /mg	111.1 <sup>2H</sup>	yes	

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Location 80 Lister Ave Newark NJ Date 11/2/16

Project / Client Terra-NBSA Phase II

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1134 Processing End 322

1135 Processing Begins 323

Before photograph (104-0165)

Encore / TEPH purgeables filled

0.0-0.5' transferred to stainless steel bowl

Before mixing photo (104-0166)

After mixing photo (104-0167)

Fill bottleware. Sample time 1150

See processing sheet for additional info

Bottle	Weight (g)	OK?	
8oz Teal 1	>300 <sup>2H</sup>	yes	GS @ 11/2
Teal 2	255.3	yes	GS
Teal 3	224.1	yes	PCDD etc
Teal 4	147.6	yes	TEPH
8oz amber	147.6	yes	
H <sub>2</sub> /mg	110.5 <sup>2H</sup>	yes	

1151 End processing 323

1155 Processing Begins 324

Before opening photo (104-0168)

Encore / TEPH purgeables filled

0.0-0.5' transferred to stainless

steel bowl

# 11/2/16

Rite in the Rain

70 Location 80 Lister Ave, Newark, NJ Date 11/2/16

Project / Client Tierra NBSA Phase III

9/13

Before mixing photo (104-0169)  
After mixing photo (104-0170)  
Fill bottle ware. Sample time 12:10  
See processing sheet for more info.

Bottle	Weight (g)	OK?	
8oz Teal 1	2300 <sup>2H</sup>	yes	
Teal 2	278.7	yes	GS
Teal 3	248.9	yes	PCDDs, etc
Teal 4	93.7	yes	TEPH
8oz amber	82.67	yes	
Hx/mg	117.16 <sup>2H</sup>	yes	

12:10  
End process ~~12:10~~ <sup>12:14</sup> 324

<sup>12</sup> Lunch @ 12:15

12:45 End lunch

12:50 Begin processing 325

Before processing photo (104-0171)  
Encore / TEPH Purgeable filled. 0.0-0.5"  
transferred to stainless steel bowl

Before mixing photo (104-0172)  
After mixing photo (104-0173)

JH 11/2/16

Location 80 Lister Ave Newark, NJ Date 11/2/16

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Project / Client Tierra-NBSA Phase III

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Fill bottle ware Sample time: 1305  
See processing sheet for additional info

Bottle	Weight (g)	OK?	
8oz Teal 1	408.1 <sup>2H</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	209.6	yes	PCDDs, etc
Teal 4	109.4	yes	TEPH
Hx/mg	103.71 <sup>2H</sup>	yes	
8oz amber	78.7 <sup>2H</sup>	yes	

1306 End Processing 325 EPA spill-collecte

1310 Start Processing 373

Before process opening photo (104-0174)  
Encore / TEPH Purgeable filled. 0.0-0.5"  
transferred to stainless steel bowl

Before mixing photo (104-0175)

After mixing photo (104-0176)

Fill bottle ware. Sample time 1315

See additional sheet for info  
(processing sheet)

1320 Kevin Gandhi off site

JH 11/2/16

Write in the Rain

72 Location 80 Lister Ave. Newark, NJ Date 11/2/16

Project / Client Terra- NBSA Phase III

11/13

Bottle	Weight (g)	OK?	
8oz Teal 1	7300 <sup>2H</sup>	yes	
Teal 2	279.3	yes	GS
Teal 3	251.6	yes	PCDDs, etc
Teal 4	199.4	yes	TEPH
8oz amber	148.5	yes	
Hg/My	143.87 <sup>2H</sup>	yes	

1324 End Processing 373

1327 Begin Processing 374

Before opening photo (104-0177)

Encore / TEPH Purgeables Filled .0-0-0.5' sediment transferred to stainless steel bowl

Before mixing photo (104-0178)

After mixing photo (104-0179)

Fill bottle ware. Sample Time: 1335

See processing form for additional info

Bottle	Weight (g)	OK?	
8oz Teal 1	411.3	yes	
Teal 2	279.5	yes	GS
Teal 3	250.9	yes	PCDDs, etc
Teal 4	153.8	yes	TEPH
8oz amber	176.37	yes	
Hg/My	110.57	yes	

JH 11/2/16

Location 80 Lister Ave. Newark, NJ Date 11/2/16 73

Project / Client Terra- NBSA Phase III

12/13

1343 End Processing 374

1345 Begin Processing 372

Before opening photo (104-0180)

Encore TEPH purgeables filled .0-0-0.5' sediment transferred to stainless steel bowl. Before mixing photo (104-0181)

After mixing photo (104-0182)

Fill bottle ware. Sample time 1400

See processing sheets for additional info

Bottle	Weight (g)	OK?	
8oz Teal 1	350.2 <sup>2H</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	201.63	yes	PCDDs, etc
Teal 4	136.16	yes	TEPH
8oz amber	140.8	yes	
Hg/My	96.22 <sup>2H</sup>	yes	

1402 End processing 372. Pack coolers.

1430 Boat crew onsite, drops off cores collected today.

1445 Evapins coolers packed, ZL & NC make ice bags, JH logs in cores.

1500 Boat crew off site.

JH 11/2/16

Rite in the Rain



Location 80 Lister Ave. Newark, NJ Date 11/2/16Project / Client Tierra-NBSA Phase III

13/13

- 1510 Pack Vista cooler.  
 1530 Vista cooler packing complete. Label newly generated drums.  
 1535 ZL+NC remove sediment from core liners. CF rearranges cores in refrigerator and sets ice against cores to keep cool in case of fridge failure. JH organizes field forms.  
 1600 Finish removing sediment from core liner  
 1605 NC offsite  
 1610 CF + ZL offsite. ZL takes Vista cooler to FedEx. JH waits for Eurofins.  
 1630 Pine courier delivers PPE.  
 1730 Eurofins courier onsite. Loads coolers.  
 1735 Eurofins courier offsite.  
 1740 JH offsite.

JH 11/2/16

Location 80 Lister Ave. Newark, NJ Date 11/3/16Project / Client Tierra-NBSA Phase III

1/12

Personnel: Julianne Hegarty (author)  
 Jessie Murray } Arcadis  
 Nick Comrie }  
 Cliff Firstenberg (Tierra)

#11/3/16 SOW: sediment processing  
 Weather: sunny, 60s, PM rain forecast.

- 0730 JH, JM, CF onsite  
 0735 JH calibrates PID and MultiRAE  
 0740 NC onsite. JM and NC walk through core processing procedure.  
 #11/3/16 0745 Amy Marie Accordi-Bey (LBG) onsite.  
 0750 H+S meeting

0814 Begin processing 338

Before opening photo (104-0183)

Encore 1 Tept4 Purgeables filled 00-0.5 sediment transferred to stainless steel bowl

Before mixing photo (104-0184)

After mixing photo (104-0185)

All bottle were sample time 0830

See processing for additional info

Bottle	weight	OK	
Sox Test 1	7300	yes	GS PDDP, etc
Test 2	7300	yes	
Test 3	7300	yes	

#11/3/16

2/12

Bottle	Weight (g)	OK	
Teal 4	130.4	YES	Teph
8oz amber	95.80	YES	
Hg/Mg	106.9	YES	
4oz amber 1	170	EPA did not tare	
4oz amber 2	168	EPA did not tare	

EPA split sample collected at this location for organics and metals #2 4oz ambers

0836 End processing 338

0839 Begin processing 344

Before opening photo (104-0186)

Encore / TEPH purgeables filed 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0187)

After mixing photo (104-0188)

Fill bottle here sample time 0855

See processing for additional info

Bottle	Weight	OK	
8oz Teal 1	730	yes	
Teal 2	7300	yes	GS
Teal 3	589.1	yes	PCDD
Teal 4	565.0	yes	TEPH
8oz amber	116.91	yes	
Hg/Mg	115.10	yes	
End processing	0857		

JK 11/3/16

3/12

0900 Begin Processing 349 Dup collected

Before opening photo (104-0189)

Encore / TEPH purgeables filed 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0190)

After mixing photo (104-0191)

Fill bottle here sample time 0915

See processing for additional info

Bottle	Weight	OK	
8oz Teal 1	384.1	y	
Teal 2	7300	y	GS
Teal 3	7300	y	PCDD
Teal 4	7300	x	TEPH
8oz amber	286.95	y	
Hg/Mg	121.49	y	
8oz Teal 1	7300	y	
Teal 2	7300	y	GS
Teal 3	7300	y	PCDD
Teal 4	7300	y	TEPH
8oz amber	296.74	y	
Hg/Mg	128.59	y	

0934 End processing 349 (Dup 10)

0937 Begin processing 354

Before opening photo (104-0192)

Encore / TEPH purgeables filed 0.0-0.5

JK 11/3/16

4/12

Sediment transferred to stainless steel bowl

Before mixing photo (104-0193)

After mixing photo (104-0194)

Fill bottles sample time 0950

See processing for additional info

Bottle	Weight	OK	Notes
Bot teal	7300	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD
Teal 4	7300	Y	TEPH
Bot amber	273.74	Y	
Hg/Mg	121.73	Y	

0955 end processing 3540957 begin processing 350

Before opening photo (104-0195)

Engine, TEPT precastles filled 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0196)

After mixing photo (104-0197)

Fill bottles sample time 10:10

See processing for additional info

Bottle	Weight	OK	Notes
Bot Teal 1	365.9	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD

5/12

Bottle	Weight	OK	Note
Teal 4	238.9	Y	TEPH
Bot amber	195.83	Y	
Hg/Mg	103.52	Y	

1000 Eugene (EPA) onsite

1014 end processing 3501017 Start processing 339 NSMSD collected hereBefore <sup>opening</sup> photo (104-0198)

Engine, TEPT precastles filled 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0199)

After mixing photo (104-0200)

Fill bottles sample time 1035, Len (EPA) onsite

See processing forms for additional info

Bottle	Weight	OK	Note
Bot Teal 1	369.3	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD
Teal 4	282.4	Y	TEPH
Bot amber	123.72	Y	
Hg/Mg	105.45	Y	
Bot Teal 1	333.8	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD
Teal 4	101.7	Y	TEPH

MS

11/3/16

4/12

Bottle	Weight	OK	Note
MS Bot amber	106.23	Y	
Hg/Mg	101.69	Y	
MSD Bot Teal 1	376.4	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD
Teal 4	184.1	Y	TEPH
Bot amber	137.52	Y	
Hg/Mg	104.93	Y	

EPA collect split on organics and metals, Ni, Mn, TOC #2 4 Bot ambers plus duplicates #2 4 Bot ambers  
PCO dox in, pH, PMT = organics  
173.52g, 169.95g, 106.18g, 180.02g

tare wt = 110g

End processing 339

1117 Begin processing 345. AA offsite.

Before opening photo (104-201)

Exposure, TePH prepared filled 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-202)

After mixing photo (104-203)

Fill bottle were sample time 1130

See processing forms for additional info

JEM 11/3/16

7/12

Bottle	Weight	OK	Note
Bot Teal 1	370.6	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD
Teal 4	240.4	Y	TEPH
Bot amber	227.69	Y	
Hg/Mg	109.65	Y	

1137 end processing 345

1141 begin processing 340 EPA offsite

Before opening photo (104-204)

Exposure, TePH prepared filled 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-205)

After mixing photo (104-206)

Fill bottle were sample time 11:55

See processing forms for additional info

Bottle	Weight	OK	Note
Bot Teal 1	7300	Y	-
Teal 2	7300	JEM Y	GS
Teal 3	267.3	Y	PCDD
Teal 4	272.2	Y	TEPH
Bot amber	306.41	Y	
Hg/Mg	109.67	Y	

1159 End processing 340

JEM 11/3/16

Return to Lab

8/12

1202 Begin processing 335. KG offsite.

Before sampling photo (104-207)

Engine, TEPT purgeable filled 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-208)

After mixing photo (104-209)

Fill bottleware sample time 1215

See processing forms for additional info

Bottle	weight	OK	Note
807 Teal 1	7300	Y	
Teal 2	7300	Y	US
Teal 3	7300	Y	PCDD
Teal 4	232.6	Y	TEPT
Borambur	184.10	Y	
Hg/Mg	109.94		

1221 end processing 335

1221 break for lunch. Brian Mikucki (Tierra) onsite.

1225 Boat crew onsite, drops off cores.

1240 JH logs in cores.

1250 Boat crew offsite.

1315 begin processing 336

Before opening photo (104-0210)

Engine, TEPT purgeable filled 0.0-0.5

Sediment transferred to stainless steel bowl

JEM 11/3/16

9/12

Before mixing photo (104-0211)

After mixing photo (104-0212)

Fill bottleware sample time 1330

See processing forms for additional info

Bottle	weight	OK	Note
807 Teal 1	7300	Y	
Teal 2	7300	Y	US
Teal 3	7300	Y	PCDD
Teal 4	159.1	Y	TEPT
Borambur	250.63	Y	
Hg/Mg	131.37	Y	

1330 end processing 336

1335 start processing 337

Before sampling photo (104-0213)

Engine, TEPT purgeable filled 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0214)

After mixing photo (104-0215)

Fill bottleware sample time 1345

See processing forms for additional info

Bottle	weight	OK	Note
807 Teal 1	7300	Y	
Teal 2	7300	Y	US
Teal 3	254.3	Y	PCDD
Teal 4	238.1	Y	TEPT

10/12

Bottle	Weight	OK	NOTE
8oz amber	257.27	Y	
Hg / Mg	111.40	Y	

1359 end processing 337

MOI begin processing 330

Before processing photo (104 - ~~0217~~ <sup>JPM</sup> 0217)

Encore, TEPT purgables filed 0.0-0.5

sediment transferred to stainless steel bowl

Before mixing photo (104 - ~~0218~~ <sup>JPM</sup> 0218)

After mixing photo (104 - ~~0219~~ <sup>JPM</sup> 0219)

Fill bottle wire sample time ~~1515~~ <sup>JPM</sup> 1415

Bottle	Weight	OK	Note
8oz Teal 1	> 300	Y	
Teal 2	> 300	Y	GS
Teal 3	> 300	Y	PCDD
Teal 4	205.9	Y	TEPT

8oz Amber 317.82

Hg / Mg 115.76

1422 end processing 330

1425 start processing 333

Before open photo (104 - 0220)

Encore TEPT purgables filed 0.0-0.5 sediment

transferred to stainless steel bowl

Before mixing photo (104 - 0222)

After mixing photo (104 - 0223) <sup>JPM 11/3/16</sup>

11/12

Fill bottle wire	sample time	1440	
Bottle	Weight	OK	NOTE

8oz Teal 1 > 300

Teal 2 > 300

Teal 3 ~~262.8~~ <sup>JPM</sup> 262.8

Teal 4 279.3

8oz Amber 280.28

Hg / Mg 114.34

1441 end processing 333

1443 start processing 334

Before open photo (104 - 0224)

Encore, TEPT purgables filed 0.0-0.5

sediment transferred to stainless steel bowl

Before mixing photo (104 - 0225)

After mixing photo (104 - 0226)

Fill bottle wire sample time 1500

Bottle	Weight	OK	Note
--------	--------	----	------

8oz Teal 1 > 300

Teal 2 ~~218.8~~ <sup>JPM</sup> 218.8

Teal 3 283.9

Teal 4 7300

8oz Amber 184.81

Hg / Mg 125.81

1802 End processing 334

JPM 11/3/16

*Return to client*



Location 80 Lister Ave. Newark, NJ Date 11/3/16

Project / Client Tierra - NBSA Phase III

12/12

1503 BEGIN PROCESSING 390

Before open photo (104-0227)

Eucore, TEPH purgates filled 0.0-0.5

sediment transferred to stainless steel bowl

Before MIXING photo (104-0228)

After MIXING photo (104-0229)

Fill bottle ware sample time 1515

Bottle	Weight	OK	Note
807 Teal 1	> 300	Y	
Teal 2	> 300	Y	GS
Teal 3	> 300	Y	PCDD
Teal 4	> 300	Y	TEPH
807 Amber	255.54	Y	
Hg 1Mg	137.33	Y	

1520 end processing 390

1525 Pack coolers.

1600 Eurofins coolers packed, make ice bags

1615 Pack Vista cooler.

1635 Eurofins courier onsite.

1650 NC and Eurofins courier offsite.

1700 JM offsite.

1710 JH offsite. BM &amp; CF still onsite.

JH 11/3/16

Location 80 Lister Ave. Newark, NJ Date 11/4/16

Project / Client Tierra - NBSA Phase III

1/10

Personnel: Julianne Hogart (author)  
 Jessie Murray } Arcadis  
 Nick Comrie }  
 Paul Brzozowski (Tierra)

SOW: sediment processing, blank collection, decon

Weather: sunny, 50s

0720 JH &amp; PB onsite. JH calibrates PID + MultiRAE

0730 JM onsite

0750 NC onsite, H&amp;S meeting

0808 Don Tyrek.

0809 BEGIN PROCESSING 332

Before open photo (104-0230)

Eucore, TEPH purgates filled 0.0-0.5 sediment

transferred to stainless steel bowl

Before MIXING photo (104-0231)

After MIXING photo (104-0232)

Fill bottle ware sample time 0820

Bottle	Weight	OK	Note
Teal 1	> 300	Y	
Teal 2	> 300	Y	GS
Teal 3	> 300	Y	PCDD
Teal 4	191.1	Y	TEPH
807 Amber	272.28	Y	
Hg 1Mg	132.56	Y	

JH 11/4/16  
Rite in the Rain

Location 80 Uster Ave Newark, NJ Date 11/4/16Project / Client Tierra NBSA Phase III

2/10

0824 Finish processing 332

0827 Start processing 331

Before open photo (104-0233)

Envelope, TEPT purgeables filled 0.0-0.5 sediment transferred to stainless steel bowl

Before mixing photo (104-0234)

After mixing photo (104-0235)

Fill bottle ware sample time 0840

Bottle	weight	OK	Note
807 Teal 1	305.5	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD
Teal 4	169.1	Y	TEPT
807 Amber	145.23	Y	
Hg/Mg	98.84	Y	

0835 Jordan (Louis Berger) onsite

0844 end processing 331

0847 start processing 382

Before open photo (104-0236)

Envelope, TEPT purgeables filled 0.0-0.5 sediment transferred to stainless steel bowl

Before mixing photo (104-0237)

After mixing photo (104-0238)

Fill bottle ware sample time 0900

JSM 11/4/16

Location 80 Uster Ave Newark NJ Date 11/4/16Project / Client Tierra NBSA Phase III

3/10

EPA split collected for metals, methyl mercury, PCBs, mercury particulates, PAHs, &amp; dioxins/furans

TOC #2 4oz amber

Bottle	weight	OK	Note
807 Teal 1	7300	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDD
Teal 4	115.4	Y	TEPT
807 Amber	125.70	Y	
Hg/Mg	130.42	Y	

0902 Finish processing 382

0905 Start processing 381

Before open photo (104-0239)

Envelope, TEPT purgeables filled 0.0-0.5 sediment transferred to stainless steel bowl

Before mixing photo (104-0240)

After mixing photo (104-0241)

Fill bottle ware sample time 0920

Bottle	weight	OK	Note
807 Teal 1	>300	Y	
Teal 2	>300	Y	GS
Teal 3	>300	Y	PCDD
Teal 4	275.4	Y	TEPT
807 Amber	341.02	Y	
Hg/Mg	143.57	Y	

JSM 11/4/16  
Rite in the Rain

4/10

0921 finish processing 381

0924 start processing 329

Before open photo (104-0242)

Encore, TEPT purgables filled 0.0-0.5  
sediment transferred to stainless steel bowl

Before mixing photo (104-0243)

After-mixing photo (104-0244)

Fill bottleware sample time 0940

EPA split collected here for  
Metals, mercury, methylmercury, PCBs,  
pesticides, PAHs, dioxin/trans, ToC

# 2 4oz Ambers

Bottle	weight	OK	Note
<del>80</del> Teal 1	380.0	Y	-
Teal 2	> 300	Y	GS
Teal 3	210.4	Y	PCDD
Teal 4	84.1	Y	TEPT
<del>80</del> Amber	92.13	Y	-
Hg/Mg	104.43	Y	-

0942 end processing 329

0944 start processing 328

Before open photo (104-0245)

Encore, TEPT purgables filled, 0.0-0.5  
sediment transferred to stainless steel bowl

JEM 11/4/14

5/10

Before mixing photo (104-0246)

After mixing photo (104-0247)

Fill bottleware sample time 10:00

Bottle	Weight	OK	Note
<del>80</del> Teal 1	364.1		
Teal 2	278.9	Y	GS
Teal 3	226.2	Y	PCDD
Teal 4	173.5	Y	TEPT
<del>80</del> Amber	203.79	Y	
Hg/Mg	102.74		

1001 end processing 328

1003 start processing 327 (DUP-11)

Before open photo (104-0248)

Encore TEPT purgables filled 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0249)

After mixing photo (104-0250)

Fill bottleware sample time 1015

Bottle	weight	OK	Note
<del>80</del> Teal 1	386.7	Y	-
Teal 2	> 300	Y	GS
Teal 3	> 300	Y	PCDD
Teal 4	254.5	Y	TEPT
<del>80</del> Amber	113.8	Y	
Hg/Mg	104.86	Y	

Rite in the Rain 11/4/14

Location 80 Lister Ave Newark, NJ Date 11/4/14Project / Client Tierra NBSA Phase III

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Bottle	weight	OK	Note
DUP Bot Teal 1	384.9	Y	—
Teal 2	> 300	Y	US
Teal 3	> 300	Y	PCDD
Teal 4	159.9	Y	TEPHT
Bot Amber	167.03	Y	
Hg/Mg	106.61	Y	—

1028 end processing 327 (DUP-11)

1031 start processing 380

Before open photo (104-0251)

Encore Tept purgates filed 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0252)

After mixing photo (104-0253)

Fill bottleware sample time 1045

Bottle	Weight	OK	Note
Bot Teal 1	> 300	Y	
Teal 2	> 300	Y	US
Teal 3	275	Y	PCDD
Teal 4	188.0	Y	TEPHT
Bot Amber	248.72	Y	
Hg/Mg	112.28	Y	

1049 end processing 380

1055 Start processing 326 (MJ/MSD collected)

JEM 11/4/14

Location 80 Lister Ave Newark NJ Date 11/4/14 <sup>93</sup>Project / Client Tierra NBSA Phase III

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Before open photo (104-0254)

Encore Tept purgates filed 0.0-0.5

Sediment transferred to stainless steel bowl

Before mixing photo (104-0255)

After mixing photo (104-0256)

Fill bottleware sample time 1105

Bottle	weight	OK	Note
Bot Teal 1	> 300	Y	
Teal 2	> 300	Y	US
Teal 3	> 300	Y	PCDD
Teal 4	120.6	Y	TEPHT
Bot Amber	107.7	Y	
Hg/Mg	108.50	Y	
MJ Bot Teal 1	> 300	Y	
Teal 2	> 300	Y	US
Teal 3	> 300	Y	PCDD
Teal 4	95.63	Y	TEPHT
Bot Amber	144.5	Y	
Hg/Mg	109.99	Y	
MSD Bot Teal 1	> 300	Y	
Teal 2	> 300	Y	US
Teal 3	> 300	Y	PCDD
Teal 4	115.12	Y	TEPHT
Bot Amber	93.4	Y	
Hg/Mg	110.40	Y	

11/4/14  
JEM in the Rain

Location 80 Lister Ave Newark NJ Date 11/4/16Project / Client Tierra NBSA Phase III

8/10

EPA split collected for  
metals, mercury, methylmercury, PCBs  
pesticides, PAHs, dioxins/furans Tox  
4oz amber x 2

1128 end processing 326

1131 start processing 341

Before open photo (104 - 0257)

Ensure, Teph purgeables filled 0.0-0.5  
sediment transferred to stainless steel bowl

Before mixing photo (104 - 0258)

After mixing photo (104 - 0259)

Fill bottle w/ sample time 1145

Bottle	weight	OIC	Note
<del>80</del> Teal 1	7300	Y	-
Teal 2	7300	Y	o/s
Teal 3	276.5	Y	RDD
Teal 4	234.5	Y	TEPH
<del>80</del> Amber	254.92	Y	
Hg/Mg	106.88	Y	

1150 end processing 341

1200 Break for lunch

1300 Don tyre K. NC+JM to decon, JH packs coolers.

1310 Begin equipment decon by following  
procedure:

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Location 80 Lister Ave. Newark, NJ Date 11/4/16Project / Client Tierra - NBSA Phase III

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1310 cont'd. Wash sediment from equipment using  
tap water spray. Scrub with alconox  
solution. Rinse with tap water.  
Rinse with 10% nitric acid, rinse with  
DI water. Rinse with methanol, rinse  
with hexane, flush with DI water  
(5x volume).

Equipment deconned: (used and unused)

- stainless steel bowls
- stainless steel spoons
- hacksaw blades
- drill bits

1400 JG off site.

1430 JH collects field blank ~~NBS~~ <sup># 11/4/16</sup> NB3157FB.

Procedure: pour lab-supplied DI water  
or hexane over hacksaw blade into  
stainless steel bowl. D.p drill bit,  
stir once with stainless steel spoon.  
Pour directly into lab-supplied  
pre-preserved bottleware. All equipment  
included in blank were deconned today.

1515 Blank collection complete. Check pH  
of preserved blanks. Don't check zero-headspace.# 11/4/16  
Rite in the Rain

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Project / Client Tierra-NBSA Phase III

10/10

ID	Analyte	Preservative	pH	ok?
	TEPH-alk	HCl	1	yes
NB3157FB	TOC	H <sub>2</sub> SO <sub>4</sub>	1	yes
	Metals	HNO <sub>3</sub>	1	yes
	CN	NaOH	12.8	yes

1530 JH resumes packing coolers.

1545 Decon complete, NC & JM help pack coolers.

1600 PB offsite.

1625 Eurofins coolers packed, prepare Vista cooler (will leave on ice in fridge over weekend).

1635 Vista cooler ready, make ice bags.

1655 JM offsite.

1710 NC offsite. Eurofins courier onsite.

1720 Eurofins courier offsite.

1730 JH offsite.

  
JH 11/4/16

Location \_\_\_\_\_ Date \_\_\_\_\_

Project / Client \_\_\_\_\_

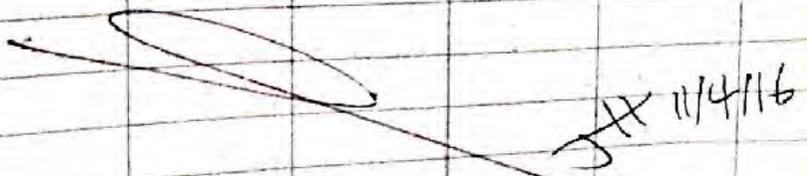
97

Location 80 Lister Ave. Newark, NJ Date 11/4/16  
 Project / Client Tierra-NBSA Phase III

10/10

ID	Analyte	Preservative	pH	ok?
	TEPH-alk	HCl	1	ok?
NB3157FB	TOC	H <sub>2</sub> SO <sub>4</sub>	1	yes
	Metals	HNO <sub>3</sub>	1	yes
	CN	NaOH	12.8	yes

- 1530 JH resumes packing coolers.
- 1545 Decan complete, NC & JM help pack coolers.
- 1600 PB offsite.
- 1625 Eurofins coolers packed, prepare Vista cooler (will leave on ice in fridge over weekend).
- 1635 Vista cooler ready, make ice bags.
- 1655 JM offsite.
- 1710 NC offsite. Eurofins courier onsite.
- 1720 Eurofins courier offsite.
- 1730 JH offsite.

 JH 11/4/16

Location 80 Lister Ave. Newark, NJ Date 11/4/16  
 Project / Client Tierra-NBSA Phase III

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Personnel: Julianne Hegarty (author)  
 Zach Leisure  
 Nick Comrie } Arcadis  
 Brian Mikucki (Tierra)

SOW: sediment processing  
 Weather: Sunny, 50s-60s

- 0715 ZL & BM onsite, ZL calibrates air monitors.
- 0730 JH onsite, prepare for processing.
- 0745 ZL checks cores in refrigerator.
- 0820 NC onsite, H&S meeting.
- 0830 Don tyvek.
- 0835 Start processing 358 - Photograph before opening (104-0261). Encores and TEPH particulates fill & 0.0-0.5" interval transferred to slusher steel bowl. Before mixing photo (104-0262) and after mixing (104-0263). Fill bottle ware. Sample time 0845

Bottle	weight (g)	ok?	note
Soz Trail 1	369.9	24	Y
Trail 2	7300		Y 65
Trail 3	269.7		Y P(CO <sub>2</sub> )
Trail 4	124.2		Y TEPH
Soz amb.	135.0		Y
W/MB	105.5	24	Y

Jaken, Kevin Gandhi (Arcadis) onsite

Location 80 Lister Ave Newark NJ Date 11/8/16  
Project / Client Terra - NBSA Phase III

890: Jordan Goldenstein (EPA/Lain Berger) onsite  
900: Begin processing 357  
Photograph before opening (104-0267). Encores and TEPH  
purgeables filled. 0.0-0.5 interval transferred to stainless  
steel bowls. Before mixing photo (104-0268) and after  
photo (104-0266). Fill bottleware. Sample time 915.

Bottle	weight (g)	ok?	note
Soz Test 1	381.8	Y	
Test 2	7300	Y	GS
Test 3	207.9	Y	PCCOs
Test 4	187.6	Y	TEPH
Soz number	206.9	Y	
H <sub>2</sub> /M <sub>2</sub>	104.3	Y	

915: End processing 357  
920: Enrique Castro (Terra) onsite  
Begin processing 356

Photograph before opening (104-0267) Encores and TEPH  
purgeables filled. 0.0-0.5 interval transferred to stainless  
steel bowl. Before mixing photo (104-0268) and after  
photo (104-0269). Fill bottleware. Sample time 935

Bottle	weight (g)	ok?	note
Soz Test 1	369.1	Y	
Test 2	7300	Y	GS
Test 3	7300	Y	PCCOs
Test 4	179.4	Y	TEPH

Location 80 Lister Ave Newark NJ Date 11/8/16  
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Bottle	weight (g)	ok?	note
Soz number	224.6	Y	
H <sub>2</sub> /M <sub>2</sub>	104.6	Y	

930: Visitors onsite:  
Juan Samano  
Dave Richardson  
Steve McGree  
Gary Braun  
Cliff Firstenberg } Terra  
Enrique Castro  
Edward Garkand  
Len Warner }  
Eugenia } EPA  
Alice Yeh }  
Visitors are onsite for meeting and  
to observe sediment processing.

JH 11/8/16

Location 80 Lester Ave, Newark Date 11/8/16  
 Project / Client Tierra-NBSA Phase III

940: End processing 356  
 945: Begin processing 352  
 Photograph before opening (104-0370). Encores and TEPH purgables filled. 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0271) and after photo (104-0272). Fill bottleware. Sample time 9:55. For additional info see processing sheet

Bottle	weight(g)	ok?	notes
8oz Teal 1	382.4	ZH	Y
Teal 2	730.0		Y GS
Teal 3	213.4		Y PCODS
Teal 4	234.4		Y TEPH
8oz amber	258.0		Y
1kg/1Mkg	106.8	ZH	Y

EPA split

1000 = End processing 352  
 1005: Start processing 347  
 Photograph before opening (104-0273). Encores and TEPH purgables filled. 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0274) and after photo (104-0275). Fill bottleware. Sample time 10:15. See sheet for additional info.

ZZ 11/8/16

Location 80 Lester Ave, Newark NJ Date 11/8/16  
 Project / Client Tierra-NBSA Phase III

Bottle	weight(g)	ok?	note
8oz Teal 1	377.2	ZH	Y GS
Teal 2	730.0		Y PCODS
Teal 3	234.1		Y TEPH
Teal 4	158.7		Y
8oz amber	147.3		Y
1kg/1Mkg	103.8	ZH	Y

1006: H+S meeting complete. Visitors observe sediment processing.

~~11/8/16~~

1017: End processing 347  
 1018: Begin processing 353  
 Photograph before opening (104-0276). Encores and TEPH purgables filled. 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0277) and after photo (104-0278). Fill bottleware. Sample time 10:30. See sheet for additional info.

~~11/8/16~~

Location 80 Lister Ave, Newark NJ Date 10/8/16  
Project / Client Tierra-NBSA Phase III

6/11

Bottle	weight (g)	ok?	note
Buz Teal 1	7300	Y	
Teal 2	7300	Y	
Teal 3	7300	Y	GS
Teal 4	227.0	Y	PCODs
Buz amber	235.6	Y	TEPH
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	109.9	Y	

1035 End processing 353 Sample processing spreadsheet  
1045 Start processing 348

Photograph before opening (104-0229). Encores and TEPH purgeables filled. 0.0-0.5' internal transferred to stainless steel bowl. Before mixing photo (104-0280) and after photo (104-0281). Fill bottle warr. Sample time = 1100. See sheet for more in L.

Bottle	weight (g)	ok?	note
Buz Teal 1	390.1	Y	
Teal 2	7300	Y	
Teal 3	278.2	Y	GS
Teal 4	183.8	Y	PCODs
Buz amber	201.5	Y	TEPH
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	107.4	Y	

1101 End processing 348  
1107 Start processing 342

# 11/8/16

Location 80 Lister Ave, Newark NJ Date 11/8/16  
Project / Client Tierra-NBSA Phase III

T/11

Photograph before opening (104-0282). Encores and TEPH purgeables filled. 0.0-0.5' internal transferred to stainless steel bowl. Before mixing photo (104-0283) and after (104-0284). Fill bottle warr. Sample time = 1115. See sheet for more in L.

Bottle	weight (g)	ok?	notes
Buz Teal 1	7300	Y	GS
Teal 2	7300	Y	PCODs
Teal 3	7300	Y	TEPH
Teal 4	192.6	Y	
Buz amber	233.0	Y	
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	116.7	Y	

1119 End processing 342  
1120 Begin processing 346

Photograph before opening (104-0285). Encores and TEPH purgeables filled. 0.0-0.5' internal transferred to stainless steel bowl. Before mixing photo (104-0286) and after mixing (104-0287). Fill bottle warr. Sample time 1130. See sheet for more in L.

Bottle	weight (g)	ok?	notes
Buz Teal 1	7300	Y	
Teal 2	7300	Y	GS
Teal 3	270.7	Y	PCODs

# 11/8/16

Location 80 Lister Ave, Newark NJ Date 11/8/16  
 Project / Client Tierra - NBSA Phase III

Bottle	weight (g)	ok?	notes
Tcal 4	171.3	Y	TBPH
8oz amber	141.2	Y	
H <sub>2</sub> /Mtg	109.5	Y	

1136: End processing 346  
 1140: Begin processing 351  
 Photograph before opening (104-0288). Encases and TEPH purgeables filled. 0.0-0.5' internal transferred to stainless steel bowl. Before mixing photo (104-0289) and after (104-0290). Fill bottle ware. Sample time 1150. See sheet for more info.

1130 Visitors from EPA, Occidental, Tetra Tech, Tierra, etc. offsite.

# 11/8/16

Bottle	weight (g)	ok?	notes
8oz Tall	7300	Y	GS PCO <sub>2</sub> TBPH
Tcal 2	7300	Y	
Tcal 3	371.2	Y	
Tcal 4	289.5	Y	
Buzamber	142.2	Y	
H <sub>2</sub> /Mtg	111.7	Y	

# 11/8/16

Location 80 Lister Ave Newark NJ Date 11/8/16  
 Project / Client Tierra - NBSA Phase III

1153: End processing 351. KG offsite  
 1200: Lunch break. CF+EC offsite.  
 1245: Begin sampling 355  
 photo before opening (104-0291)  
 Encase and TEPH purgeables filled  
 0.0-0.5' internal transferred to stainless steel bowl. Before mixing photo (104-0292), and After (104-0293)  
 Fill bottle ware. Sample time: 1300  
 See sheets for more info

Bottle	Weight (g)	ok?	Notes
8oz Tall	360.6 <sup>ET</sup>	yes	GS PCO <sub>2</sub> TEPH
Tcal 2	<del>7300</del> 7300	yes	
Tcal 3	266.2	yes	
Tcal 4	157.6	yes	
8oz Amber	177.4	yes	
H <sub>2</sub> /Mtg	103.55 <sup>#</sup>	yes	

1305 End Processing 355  
 1306 Begin sampling 343

# 11/8/16

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Location 80 Lister Ave Newark, NJ

Project / Client Tierra-NBSA Phase III

Date 11/8/16

10/11

Photo before opening (104-0294), Encore  
and TEPH purgeables filled, 0.0-0.5" interval  
transferred to stainless steel bowl. Before  
mixing photo: (104-0295) and After mixing:  
(104-0296). Fill bottleware. Sample time 1320  
See sheet for more details...

bottles	Weight(g)	OK	
8oz Teal 1	7300	yes	
Teal 2	7300	yes	GS
Teal 3	7300	yes	PCDDs
Teal 4	7300	yes	TEPH
8oz Amber	141.07	yes	
H <sub>2</sub> /Mtg	180.19 <sup>24</sup>	yes	

1322 End Processing 343

Soil processing for 11/8/16 complete pack  
coolers for Eurofins.1400 Eurofins coolers packed, make ice bags  
\*1335 JG offsite.1435 Ice bags made, set up miter saw for  
tomorrow. BM offsite.

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Location 80 Lister Ave Newark, NJ

Project / Client

Tierra-NBSA Phase III

Date 11/8/16

11/11

1445 Set up decon area for lexan liners.  
1510 Eurofins courier onsite, pick up and drop off.  
1520 Eurofins courier offsite. Bottle inventory.

## Bottle Inventory

19x 40mL VOA HCl  
2 sets VOA trip blank  
6x <sup>250mL</sup> 125mL amber  
5x Hg trip blank  
5x CH<sub>3</sub>Hg trip blank  
65x Hg/CH<sub>3</sub>Hg 2oz jars  
15x 1L amber unpreserved  
6x 1L amber HCl  
3x 250mL plastic HNO<sub>3</sub>  
3x 250mL plastic NaOH  
3x 125mL amber H<sub>2</sub>SO<sub>4</sub>

1550 All offsite.

JH 11/8/16

Location 80 Lister Ave, Newark NJ Date 11/9/16Project / Client Tierra-NBSA Phase III1/2

Personnel: Z. Leisure }  
 J. Murray } Arcadis  
 N. Lemie }

SOW: core decon

Weather: cloudy, 50-70°F

730: On-site. H&amp;S meeting and paperwork.

745: Begin set-up for core liner cutting

1050: Finish cutting and decon cores.

1055: Break for bathroom and snacks

1100: Clean up area and prepare for field blank collection off Lexan tubes.

1140: Field blank collected

1150: PSEG on-site to read the meter.

1205: PSEG off-site

ID	Analyte	pH	OK?
NB3158FB	TPH-ish	1	Y
	TOC	1	Y
	Cyanide	12.3	Y
	metals	1	Y
	HCL added for MIDg		

1210: Begin cooler packing.

1230: Lunch break

NC 11/9/16

Location 80 Lister Ave, Newark NJ Date 11/9/16Project / Client Tierra-NBSA Phase III2/2

1300: Resume final cooler packing  
 1303: Call with Kevin discussing test plan sampling  
 1310: J Murray off-site  
 1330: Begin emptying spent Core Liners  
 1355: Eurofins on-site  
 1405: Eurofins off-site  
 1410: Finish emptying core liners  
 1420: Z. Leisure off-site  
 1630: Pat at Lab with NB sampler  
 1645: Pat and NC off-site.

NC 11/9/16

1/12

Personnel: Julianne Haggerty (author)  
 Zach Leisure } Arcadis  
 Nick Conrre }  
 Nathan Scott (Tierra)

SOW: Sediment processing

Weather: sunny, 50s

0715 ZL onsite, calibrates air monitors.

0725 JH onsite

0730 Nathan Scott (Tierra) onsite

0740 NC onsite. Set up for processing. H+S meeting.

0800 NS offsite for coffee. Don't break.

0810 Begin processing 182

Photograph before opening (104-0297). Encovers and TEPH  
 purgeables filled - 0.0-0.5" interval transferred to stainless  
 steel mixing bowl. Before mixing photo (104-0298) and after  
 (104-0299). Fill bottleware. Sample time 830. See

sheet for more info

Bottle	Weight (g)	ok?	notes
8oz Teal 1	7300	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDDs
Teal 4	2613	Y	TEPH
8oz amber	201.5	Y	
Hg/Mn/As	127.9	Y	

11/10/16

1/12

Bottle	Weight (g)	ok?	notes
8oz Teal 1	7300	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDDs
Teal 4	272.7	Y	TEPH
8oz amber	230.4	Y	
Hg/Mn/As	141.8	Y	
8oz Teal 1	7300	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDDs
Teal 4	229.9	Y	TEPH
8oz amber	248.1		
Hg/Mn/As	135.0	Y	

MS/MSD taken @ 182

820: NS onsite

840: Jordan EPA rep. onsite

845: End processing 182

846: Start processing 181

Photograph before opening (104-0300) Encovers and TEPH  
 purgeables filled - 0.0-0.5" interval transferred to  
 stainless steel bowl. Before mixing photo (104-0301)  
 and after (104-0302). Fill bottleware.

Sample time 900. See sheet for more info

11/10/16

Rite in the Rain

Location 80 Lyster Ave, Newark NJ Date 11/10/16Project / Client Terra-NBSA Phase III

3/12

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300 <sup>24</sup>	X	
Teal 2	7300	X	GS
Teal 3	256.9	X	PCODs
Teal 4	222.3	X	TEPH
8oz amber	318.59	X	
Hg/Mthg	134.7 <sup>24</sup>	X	

901: End processing 181

902: Begin processing 180

Photograph before opening (104-0303). Encores and TEPH  
 purgebles filled. 0.0-0.5 interval transferred to stainless  
 bowl. Before mixing photo (104-0309) and after (104-0305)

Fill bottle ware. Sample time 915. See sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300 <sup>24</sup>	X	
Teal 2	7300	X	GS
Teal 3	7300	X	PCODs
Teal 4	154 <sup>24</sup>	X	TEPH
8oz amber	<del>7300</del> 190.7 <sup>24</sup>	X	
Hg/Mthg	115.5 <sup>24</sup>	X	

915: End processing 180

916: Start processing 179

Photograph before opening (104-0306). Encores and TEPH  
 purgebles filled. 0.0-0.5 interval transferred to stainless

11/10/16

Location 80 Lyster Ave, Newark NJ Date 11/10/16 113Project / Client Terra-NBSA Phase III

4/12

bowl. Before mixing photo (104-0307) and after (104-0308)  
 Fill bottle ware. Sample time 930. See sheet  
 for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	386.6 <sup>24</sup>	X	
Teal 2	7300	X	GS
Teal 3	7300	X	PCODs
Teal 4	252.8	X	TEPH
8oz amber	197.7	X	
Hg/Mthg	122.04 <sup>24</sup>	X	

932: End processing 179

933: Begin processing 368

Photograph before opening (104-0309). Encores and TEPH  
 purgebles filled. 0.1-0.5 interval transferred to stainless  
 bowl. Before mixing photo (104-0311) and after (104-0312)

Fill bottle ware. Sample time 945. See sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	380.8 <sup>24</sup>	X	
Teal 2	7300	X	GS
Teal 3	239.3	X	PCODs
Teal 4	157.0	X	TEPH
8oz amber	133.3	X	
Hg/Mthg	105.9 <sup>24</sup>	X	

EPA split taken

11/10/16 Rite in the Rain

5/12

951: End processing 368

952: Begin processing 366

Photograph before opening (104-0313). Encores and TEPH purgables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0314) and after (104-0315). Fill bottleware. Sample time 1005.

See sheet for more info

Bottle	weight (g)	oh?	notes
Soz Test 1	372.8	24	Y
Test 2	730.0		Y GS
Test 3	238.5		Y PCODs
Test 4	97.3		Y TEPH
Soz number	140.0		Y
Hg/Mtky	105.2	24	Y

1007: End processing 366

1010: Begin processing 365

Photograph before opening (104-0317). Encores and TEPH purgables filled. 0.0-0.5' interval transferred to stainless steel bowl.

Before mixing photo (104-0318) and after (104-0319)

Fill bottleware. Sample time 1020. See sheet for more info.

Bottle	weight (g)	oh?	notes
Soz Test 1	365.0	20	Y
Test 2	730.0		Y GS
Test 3	277.5		Y PCODs

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Bottle	weight (g)	oh?	notes
Test 4	261.0		Y TEPH
Soz number	162.2		Y
Hg/Mtky	103.7	24	Y
1027: End processing	365		
1030: Processing team break			
1044: Begin processing	362		
Photograph before opening (104-0320). Encores and TEPH purgables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0321) and after (104-0322). Fill bottleware. Sample time 1100. See sheet for more info.			

Bottle	weight (g)	oh?	notes
Soz Test 1	362.0	24	Y
Test 2	730.0		Y GS
Test 3	244.8		Y PCODs
Test 4	131.4		Y TEPH
Soz number	127.5		Y
Hg/Mtky	100.9	24	Y

1101: End processing 362

1102: Begin processing 359

Photograph before opening (104-0323). Encores and TEPH purgables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0324)

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11/10/16

7/12

and after (104-0325). Fill bottleware. Sample time

1115. See sheet for more info

Bottle	weight (g)	ok?	notes
8oz Test 1	360.6	24 ✓	
Test 2	7300	✓	GS
Test 3	7300	✓	PCODS
Test 4	115.8	✓	TEPH
8oz amber	95.5	✓	
Hg/MHg	104.4	24 ✓	

1116: End processing 359

1117: Begin processing 361

Photograph before opening (104-0326). Encores and TEPH purgeables. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0327) and after (104-0328). Fill bottleware. Sample time 1130.

See sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Test 1	384.7	24 ✓	
Test 2	7300	✓	GS
Test 3	261.4	✓	PCODS
Test 4	200.8	✓	TEPH
8oz amber	151.9	✓	
Hg/MHg	102.6	24 ✓	

1131: End processing 361

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8/12

1132 Start processing 360

Photograph before opening (104-0329). Encores and TEPH purgeables. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0330) and after (104-0331). Fill bottleware. Sample time 1145

See sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Test 1	386.4	24 ✓	
Test 2	7300	✓	GS
Test 3	7300	2022 ✓	PCODS
Test 4	141.8	✓	TEPH
8oz amber	131.4	✓	
Hg/MHg	102.0	24 ✓	

1146: End processing 360. Boat crew onsite.

1147: Start processing 363

Photograph before opening (104-0332). Encores and TEPH purgeables. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0333) and after (104-0333). Fill bottleware. Sample time 1200.

See sheet for more info.

Duplicate sample taken @ 363

N 003 SED DUP-12

1200: Boat crew off-site

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Rite in the Rain

Location 80 Lister Ave, Newark NJ Date 11/10/16

Project / Client Tierra - NBSA Phase III

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Bottle	weight (g)	ok?	notes
8oz Teal 1	391.6 <sup>2H</sup>	✓	
Teal 2	7300	✓	GS
Teal 3	7300	✓	PCDDs
Teal 4	265.7	✗	TEPH
8oz amber	150.6	✓	
Hg/MTG	106.4 <sup>2H</sup>	✓	
8oz Teal 1	7300	✓	
Teal 2	7300	✓	GS
Teal 3	280.8	✗	PCDDs
Teal 4	217.3	✗	TEPH
8oz amber	156.3	✓	
Hg/MTG	104.9 <sup>2H</sup>	✓	

Duplicate

1215: End processing 363

1218 Break for lunch, JH checks in today's cores.

1300: Begin packing and wrapping bottles

1313: Begin 364 (processing)

Photograph before opening (104-0335). Encore/TEPH Purgeable, 0.0-0.5' interval transferred

to stainless steel bowl. Before mixing photo (104-0336), after mixing photo (104-0337)

Fill bottle ware, Sample time 1325

JH 11/10/16

Location 80 Lister Ave, Newark NJ Date 11/10/16

Project / Client Tierra - NBSA Phase III

10/2

See sheets for more info

Bottle	Weight (g)	ok?	Notes
8oz Teal 1	408.8 <sup>2H</sup>	yes	
Teal 2	7300	yes	GS
Teal 3	7300	yes	PCDDs
Teal 4	116.25	yes	TEPH
8oz Amber	136.6	yes	
Hg/MTG	104.18 <sup>2H</sup>	yes	

EPA split sample collected from 364

1331 End Processing 364

1332 Start processing 183

Photograph before opening (104-0338)

Encore/TEPH Purgeable, 0.0-0.5' interval transferred to stainless steel bowl. Before

mixing photo (104-0339), after mixing

photo (104-0340) Fill bottle ware,

Sample time 1345

JH 11/10/16

Return the Rain

11/12

Bottle	Weight (g)	OK	Notes
8oz Teal 1	7300 <sup>24</sup>	yes	
Teal 2	>300	yes	GS
Teal 3	242.14	yes	PCDDs
Teal 4	124.59	yes	TEPH
8oz amber	65.4	yes	
Hg/MeHg	111.91 <sup>24</sup>	yes	

1348 End Processing 183

1349 Start Processing 184

Photo before opening (104-0341), Encore/TEPH  
 purgeable 0.0-0.5' interval transferred to  
 stainless steel bowl. Before mixing photo (104-0342)  
 after mixing (104-0343). Fill bottle ware

Sample Time: 1400

See Sket for more info

~~1358~~ End NC

Bottle	Weight (g)	OK?	Notes
8oz Teal 1	>300 <sup>24</sup>	yes	
Teal 2	>300	yes	GS
Teal 3	2166.2	yes	PCDDs
Teal 4	146.8	yes	TEPH
8oz amber	95.1	yes	
Hg/MeHg	1138 <sup>24</sup>	yes	

11/10/16

12/10

EPA Split sample collected from  
184

1410 End Processing, pack coolers.

1445 JG offsite

1450 NS offsite. Coolers packed, make ice bags.

1535 NC+ZL offsite. ZL to drop Vista cooler  
 at FedEx JH stays onsite to wait for Eurofins  
 courier, checks paperwork from today.

1645 Eurofins courier onsite, drops off bottleware  
 and empty coolers, picks up samples.

1710 Eurofins courier offsite. JH checks coolers.

7x empty coolers

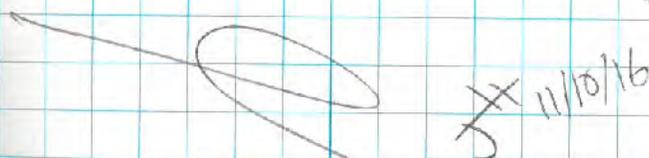
140x 16oz. clear glass (+54 onsite already)

208x Encores (+36 onsite already)

5 sets TB for VOCs

0x 8oz clear glass (+20 onsite already)

1750 JH offsite.



11/10/16

Location 80 Lister Ave. Newark, NJ Date 11/11/16

Project / Client Tierra - NBSA Phase III

1/11

Personnel: Julianne Hegarty (author)

Zach Leisure

Nick Comrie

Paul Brzezowski (Tierra)

Aradis?

JH 11/11/16  
07 SOW: sediment processing, equipment decon,  
blank collection

Weather: sunny, 50s

0720 JH onsite, PB already onsite.

0725 ZL onsite, calibrates air monitors.

0730 NC onsite, off-site for supplies. ZL & JH  
set up for processing, collect additional  
bowls to be decontaminated today.0750 ZL removes sediment from this week's spent  
cores. JH sets up COC and SDG for today's  
samples. H+S meeting.

0815 Begin processing, 206.

Photo before opening (104-0349). Encore

0.0-0.5' interval transferred to stainless steel  
bowl. Before mixing photo (104-0345), after  
mixing photo (104-0346). Fill bottle ware.

Sample time: 0835.

See sheets for more info.

820: Jordan (EPA rep.) on-site, NC onsite.

JH 11/11/16

Location 80 Lister Ave, Newark NJ Date 11/11/16 123

Project / Client Tierra - NBSA Phase III

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Bottle	Weight	ok?	Notes
8oz teal 1	256.4 <sup>2H</sup>	yes	
Teal 2	>300	yes	GS
Teal 3	>300	yes	PCDDs
Teal 4	179.13	yes	TEPH
8oz amber	146.2	yes	
Hg/MHg	94.02	yes	

0835 complete processing 206.

0836 Begin processing 199.

Photograph before opening (104-0347). Encores and TEPH  
purgables filled. 0.0-0.5' interval transferred to  
stainless steel bowl. Before mixing photo (104-0348)  
and after (104-0349). Fill bottle ware. Sample time  
0850. See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	345.4	2H Y	
Teal 2	>300	Y	GS
Teal 3	235.0	Y	PCDDs
Teal 4	118.1	Y	TEPH
8oz amber	116.0	Y	
Hg/MHg	93.84	2H Y	

0851 End processing 199.

852 Begin processing 200.

Photograph before opening (104-0350). Encores and TEPH

JH 11/11/16

Rite in the Rain

Location 50 Lister Ave, Newark NJ Date 11/11/16Project / Client Terra-NBSA Phase III

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purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0351) and after (104-0352). Fill bottleware. Sample time 900.

See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300 <sup>24</sup>	✓	
Teal 2	7308	✓	GS
Teal 3	7300	✓	PCODS
Teal 4	7300	✓	TEPH
8oz amber	297.4	✗	
Hg/MHg	135.2 <sup>24</sup>	✓	

906: End processing 208

908: Begin processing 194

Photograph before opening (104-0353). Encores and TEPH purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl.

Before mixing photo (104-0354) and after (104-0355). Fill bottleware. Sample time 920. See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	358.7 <sup>24</sup>	✓	
8oz Teal 1	366.0 <sup>24</sup>	✓	
8oz Teal 1	356.8 <sup>24</sup>	✓	
Teal 2	7300	✓	GS
Teal 2	7300	✓	GS
Teal 2	7300	✓	GS

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Project / Client Terra-NBSA Phase III

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Bottle	weight (g)	ok?	notes
Teal 3	2590	✓	PCODS
Teal 3	7300	✓	PCODS
Teal 3	275.4	✓	✗
Teal 4	236.0	✓	TEPH
Teal 4	228.4	✓	✗
Teal 4	197.8	✓	✗
8oz amber	118.9	✓	
8oz amber	133.2	✓	
8oz amber	146.8	✓	
Hg/MHg	100.3 <sup>24</sup>	✓	
Hg/MHg	102.5 <sup>24</sup>	✓	
Hg/MHg	99.0 <sup>24</sup>	✓	

MS/MSD collected

934 End processing 194

935 Begin processing 190

Photograph before opening (104-0356). Encores and TEPH purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0357) and after (104-0358). Fill bottleware. Sample time 945.

See sheets for more info.

JH 11/11/16

Rite in the Rain

S/1

Bottle	weight (g)	ok?	notes
8oz Teal 1	375.2	2# ✓	
Teal 2	730.0	✓	GS
Teal 3	229.7	✓	PCDDs
Teal 4	160.8	✓	TEPH
8oz amber	176.8	✓	
Hg/MTg	101.8	2# ✓	

949: End processing 190

1001: Begin processing 189

Photograph before opening (104-0359). Encores and TEPH purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0360) and after (104-0361). Fill bottleware. Sample time 1010. See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	730.0	2# ✓	
Teal 2	730.0	✓	GS
Teal 3	255.4	✓	PCDDs
Teal 4	144.3	✓	TEPH
8oz amber	140.8	✓	
Hg/MTg	122.9	2# ✓	

1017: End processing 189

1019: Begin processing 201

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6/11

Photograph before opening (104-0362). Encores and TEPH purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0363) and after (104-0364). Fill bottleware. Sample time 1030. See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	370.5	✓	
Teal 2	730.0	✓	GS
Teal 3	730.0	✓	PCDDs
Teal 4	207.3	✓	TEPH
8oz amber	225.3	✓	
Hg/MTg	102.1	✓	

1036 End processing 201

1038 Begin processing 195

Photograph before opening (104-0365). Encores and TEPH purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0366) and after (104-0367). Fill bottleware. Sample time 1050. See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	385.3	2# ✓	
Teal 2	730.0	✓	GS
Teal 3	210.5	✓	PCDDs
Teal 4	154.1	✓	TEPH

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Rite in the Rain

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Bottle	weight (g)	ok?	notes
Soz amber	137.9	Y	
Hg/MHg	109.9	2# Y	
1055: End processing 195. EPA split taken			
1100: Begin processing 191			
Photograph before opening (104-0368). Encores and TEPH purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0369) and after (104-0367). Fill bottlenecks. Sample time 1110.			
See sheets for more info.			

Bottle	weight (g)	ok?	notes
Soz Teal 1	391.3	2# Y	
Teal 2	7300	Y	GS
Teal 3	199.3	Y	PCDDs
Teal 4	265.2	Y	TEPH
Soz amber	146.7	Y	
Hg/MHg	107.91	2# Y	
Duplicate NBSA 35E00DUP-13			

Bottle	weight (g)	ok?	notes
Soz Teal 1	384.6	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDDs
Teal 4	191.2	Y	TEPH
Soz amber	215.5	Y	
Hg/MHg	106.0	Y	

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Location 80 Lyster Ave, Newark NJ Date 11/11/16 129

Project / Client Tierra - NBSA Phase III

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1125: End processing 191  
 1128: Lunch break. JG off site.  
 1211: Begin processing 187  
 Photograph before opening (104-0371)  
 Encore/TEPH Purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl.  
 Before mixing (104-0372) and after (104-0373) Fill bottlenecks. Sample time 1225.  
 See sheets for more info.

Bottle	Weight (g)	ok	notes
Soz Teal 1	7300	2# yes	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	163.1		TEPH
Soz amber	153.0		
Hg/MHg	129.3	2#	

1231 End Processing 187  
 1232 Start Processing 186  
 Photograph before opening (104-0374)  
 Encore/TEPH Purgeables filled. 0.0-0.5' interval transferred to stainless steel bowl  
 Before mixing (104-0375) after (104-0376)  
 11/11/16  
 Note on the Rain

9/11

Fill bottle ware Sample time: 1245

See sheets for more info

Bottles	Weight (g)	ok	Notes
8oz Teal 1	7300 <sup>2H</sup>	yes	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	7300		TEPH
8oz amber	241.2		
Hg/MH <sub>2</sub>	130.2 <sup>2H</sup>	↓	

1249 End Processing 1861250 Start Processing 185

Photograph before opening (104-0377)

Entonx/TEPH Purgeables Filled, 0.0-0.5' interval transferred to stainless steel bowl

Before mixing photo (104-0378) and After (104-0379). Fill bottle ware Sample

time 1300. See sheets for more info

bottle	weight (g)	ok	Notes
8oz Teal 1	377.8 <sup>2H</sup>	yes	
Teal 2	7360		GS
Teal 3	264.0		PCDDs
Teal 4	149.8		TEPH
8oz amber	238.7		
Hg/MH <sub>2</sub>	106.2 <sup>2H</sup>	↓	JH 11/11/16

10/11

1305 End Processing 185

1320 Begin equipment decontamination: spray with tap water to remove gross sediment. Scrub with alconox solution, rinse with tap water. Rinse with 10% nitric acid, rinse with DI water. Rinse with methanol, rinse with hexane, flush with DI water. Process used for stainless steel bowls, stainless steel spoons, hacksaw blades, drill bits, and core catchers.

1400 PB off site.

1425 JH collects equipment blank NBS159FB. ZL and NC continue decon. Blank collection procedure: pour lab-supplied DI water or hexane over hacksaw blade into stainless steel bowl. Dip core catcher and drill bit. Stir twice with stainless steel spoon. Transfer directly into lab-supplied pre-preserved bottle ware.

1500 Blank collection complete, pack coolers.

1520 check pH of preserved bottle ware.

JH 11/11/16



11/11

ID	Analyte	pH	ok?
	TEPH-alk		
NB3159FB	TOC	1	yes
	CN	12.86	yes
	Metals	1	yes

1610 Eurofins courier onsite, drops off coolers, picks up samples. Decon complete.

1630 Eurofins courier offsite, pack Vista cooler.

1700 Vista cooler prepared, processing area tidied, ZL + NC offsite. JH prepares info for boat crew Monday (COC/SDG, instructions).

1720 Bottle inventory:  
420 x Encores  
140 x 16oz clear  
Stage coolers.

1750 JH offsite.

JH 11/11/16

1/2

Personnel: Julianne Haggarty (author) }  
Zach Leisure } Arcadis

SOW: Ponar decon, blank collection

Weather: sunny, 50s

1150 JH onsite, organize paperwork

1210 ZL onsite.

1215 Jordan Goldstein (LBS) onsite.

1220 Begin ponar decon: 3 standard, 1 petite.

Procedure: remove gross sediment by scrubbing with brush and tap water. Scrub with alcinox solution, rinse with tap water. Rinse with 10% nitric acid, rinse with DI water, rinse with methanol, rinse with hexane, flush with DI water.

1255 Ponar decon complete. Ponars staged in poly lined shelving to air dry.

1305 JG offsite. JH + ZL prepare for field blank collection.

1330 Collect NB3160FB to represent ponars deconned today. Procedure: pour lab-supplied DI water or hexane through <sup>top of</sup> ponar with jaws partially open. Pour water from ponar directly into lab-supplied ...

JH 11/14/16

lets in the rain.

2/2

1330 cont. pre-preserved bottleware.

1345 Blank collection complete. Check pH of preserved samples.

ID	Analyte	pH	ok?
	TEPH-alk	1	yes
NB3160FB	TOC	1	yes
	Metals	1	yes
	CN	12.3	yes

1400 Make ice bags.

1410 Pack coolers for Eurofins + Vista.

1430 Coolers packed, 2L offsite. JH waits for boat crew + Eurofins.

1600 Boat crew onsite, unloads cores + ponar buckets.

1605 JH packs Encores into cooler. Boat crew packs supplies.

1620 Boat crew offsite. JH checks cores + buckets in refrigerator.

1745 Eurofins carrier onsite, drops off + picks up coolers.

1800 Eurofins carrier offsite.

1805 JH offsite.


 JH 11/14/16

2/2

1330 cont. pre-preserved bottleware.

1345 Blank collection complete. Check pH of preserved samples.

ID	Analyte	pH	ok?
	TEPH-alk	i	yes
NB3160FB	TOC	1	yes
	Metals	1	yes
	CN	12.3	yes

1400 Make ice bags

1410 Pack coolers for Eurofins + Vista

1430 Coolers packed, ZL offsite. JH wants for boat crew + Eurofins.

1600 Boat crew onsite, unloads cores + ponar buckets

1605 JH packs Encores into cooler. Boat crew packs supplies

1620 Boat crew offsite. JH checks cores + buckets in refrigerator.

1745 Eurofins carrier onsite, drops off + picks up coolers.

1800 Eurofins carrier offsite.

1805 JH offsite.

JH 11/14/16

1/6

Personnel: Julianne Hegarty (author) }  
 Zach Leisure } Arcadis  
 Max Goldstein }  
 Cliff Firstenberg (Tierra)

SCW: sediment processing, ponar decan,  
 blank collection

Weather: rain, 50s

0740 MG, JH, ZL onsite. CF already onsite.

0745 ZL calibrates air monitors.

0750 H+S meeting.

0820 Start processing Z1

Photograph before opening (104-0380) Broom and  
 TEPH purgables filled. 0.0-0.5 interval transferred  
 to stainless steel bowl. Before mixing photo (104-0381) and  
 after (104-0382). Fill bottleware. Sample time  
 825. See sheets for more info

Bottle	Weight (g)	ok?	notes
Boz Teal 1	736.0 3681 ZH	Y	
Teal 2	261.7 300	Y	G5
Teal 3	261.1	Y	ACD05
Teal 4	181.7	Y	TEPH
Boz Zunker	86.8	Y	
Ag / MHy	122.2 ZH	Y	

JH 11/15/16  
 Note in the Rain

Location 80 Lister Ave, Newark NJ Date 11/15/16Project / Client Tierra - NBSA Phase III

2/6

840: Jordan (elt overnight req.) on-site

842: End processing 211

844: Begin processing 213

Photo before opening (104-0383). Encores and TEPH purgables filled. 0.0-0.5 interval transferred to stainless steel bowl.

Before mixing photo (104-0384) and after (104- ). Fill

bottleware. Sample time 855 See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	371.8 2H	Y	
Teal 2	261.7	Y	GS
Teal 3	195.9	Y	PCDDs
Teal 4	132.0	Y	TEPH
8oz amber	104.1	X	
Hg/MHg	101.6 2H	X	

904 End processing 213

906 Begin processing 207

Photograph before opening (104-0386) - Encores and TEPH purgables filled. 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0387) and after (104-0388)

Fill bottleware. Sample time 920. See sheets for more info

Bottle	weight (g)	ok?	notes
8oz Teal 1	367.1 2H	Y	
Teal 2	263.3	Y	GS
Teal 3	240.5	Y	PCDDs
Teal 4	204.0	Y	TEPH

JH 11/15/16

Location 80 Lister Ave, Newark NJ Date 11/15/16Project / Client Tierra - NBSA Phase III

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Bottle	weight (g)	ok?	notes
8oz amber	73.6	Y	
Hg/MHg	105.7 2H	Y	

0431: End processing 207

933: Begin processing 205

Photograph before opening (104-1389). Encores and TEPH purgables filled. 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0390) and after (104-0391). Fill bottleware. Sample time

945. See sheets for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	730.0 2H	Y	
Teal 2	250.2	Y	GS
Teal 3	730.0	Y	PCDDs
Teal 4	267.7	Y	TEPH
8oz amber	212.7	Y	
Hg/MHg	145.6 2H	Y	

956 End processing 205

1005 Talk with Cliff and Jordan about composite sampling procedures. Jordan called Ann Marie with okay to proceed

1014: Begin composite sampling for Comp 10

JH 11/15/16

Rite in the Rain

Location 80 Lyster Ave, Newark NJ Date 11/15/16Project / Client Terra-NBSA Phase III

4/4

1029: Previous photos for Comp10 show time error. Should be 1045 Sample time, not 945.  
Going forward sample time for Comp10 is 1045  
Sample locations emptied into <sup>industrial</sup> stainless steel bowl, photographed and homogenized. 3, 16oz jars of each location

Bottle

256 and 304 placed into another steel bowl and homogenized. Photograph taken. Bottleware filled.

Bottle	weight (g)	ok?	notes
8oz Tert1	359.7 <sup>24</sup>	Y	
Tert2	7300	Y	GS
Tert3	2844	Y	PCDDs
Tert4	7300	X	TEPH
8oz amber	154.9	Y	
Hg/MHg	101.2 <sup>24</sup>	Y	

EPA split taken @ Comp10

1055: End processing Comp10

1100: Begin processing Comp01 from locations

296, 297, 298, 301, 302

JH 11/15/16

Location 80 Lyster Ave, Newark NJ Date 11/15/16Project / Client Terra-NBSA Phase III

5/6

1119: Discussion with Cliff and Jordan about homogenizing. Okay to decant water from bowls.  
Decanting process: decant water from each grab's bowl into smaller decontaminated stainless steel bowl. Receiving bowl for decanted water to be rinsed between grabs with DI water.

Bottle	weight (g)	ok?	notes
6oz Tert1	751.6	Y	
Tert2	7300	Y	GS
Tert3	7300	Y	PCDDs
Tert4	7300	X	TEPH
8oz amber	2722	Y	
Hg/MHg	99.1	Y	

1210: End processing Comp01, break for lunch.

1240: Check labels on Sediment samples, SDS for all should be NB378.

1315 Pack coolers + make ice bags

1330 JG offsite.

1405 CF offsite.

1435 Eurofins courier onsite.

JH 11/15/16 Rite in the Rain



140 Location 80 Lister Ave. Newark, NJ Date 11/15/16  
Project / Client Tierra-NBSA Phase III

6/6

- 1435 cont'd. Courier drops off <sup>5 # 11/15/16</sup> 4 sets of field blank bottleware.  
1445 Eurofins courier offsite.  
1450 ZL+MG offsite, JH collects paperwork.  
1510 JH offsite.

JH 11/15/16

Location 80 Lister Ave. Newark, NJ Date 11/16/16 141  
Project / Client Tierra-NBSA Phase III

1/3

Personnel: Julianne Hogarty (author) } Arcadis  
Zach Leisire }  
SOW: decon ponars, blank collection.  
Weather: sunny, 50s

- 1430 ZL+JH onsite, H+S meeting.  
1440 set up decon area.  
1445 make ice bags.  
1455 Eurofins courier onsite, drops off coolers.  
1500 Boat crew onsite, Eurofins courier offsite.  
Boat crew transfers ponar grabs & cores from trucks to refrigerator.  
1515 ZL+JH begin ponar decon.  
1530 Boat crew offsite, JH+ZL continue ponar decon by same procedure as 11/14/16.  
1545 Ponar decon complete, prepare for field blank collection.  
1600 collect ponar blank NB3161FB by pouring lab-supplied DI water or hexane through pette ponar (deconned today) directly into lab-supplied pre-preserved bottleware.  
1620 Blank collection complete, check pH of preserved blanks.

JH 11/16/16  
Rite in the Rain

2/3

ID	Analyte	pH	OK?
NB3161FB	TOC	1	yes
	Metals	1	yes
	EPH-AIK	1	yes
	CN	12.3	yes.

1625 Pack coolers

1630 Eurofins carrier onsite, picks up coolers.

1655 Eurofins carrier offsite. ZL sets up processing room, JH checks cores + grabs in fridge.

1710 ZL offsite, JH checks bottleware delivered today.

Received today:

210 x 16oz clear glass

70 x 8oz clear glass

420 x EnCores.

5 x VOC trip blank.

Total onsite:

10 x VOC trip blank

3 x Hg/Methg trip blanks.

8 x Field blank sets. (Eurofins)

105 x 8oz clear glass

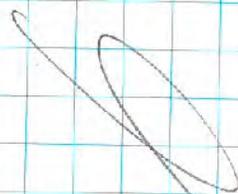
6 x 500mL bottles for Hg &amp; Methg. FB

473 x 16oz clear glass

JH 11/16/16

3/3

cont'd. 56 x 2oz jar for Hg/Methg  
 ~900 x EnCores  
 56 x 8oz amber for Vista  
 1755 Bottle inventory complete.  
 1800 JH offsite.



JH 11/16/16



4 Location 80 Lister Ave. Newark, NJ Date 11/17/16

Project / Client Tierra-NBSA Phase III

2/10

Bottle	Weight	OK?	Notes
<del>80 Amber</del>	147.7	Y	
Hg / Mthg	114.5	Y	

0818 end processing 217

0820 begin processing ~~218~~ 221

Photo before opening (104-0404)

Entire TEPA purgeable filled 0.0-0.5' interval transferred to stainless steel bowl

Before mixing photo (104-0405)

After mixing photo (104-0404, 0407)

Sample time 0830

See sheets for more info

Bottle	Weight	OK	Note
804 Teal 1	7300		
Teal 2	7300		GS
Teal 3	7300		
Teal 4	151.46		
804 Amber	138.9		
Hg / Mthg	107.4		

0837 finish processing 221

0839 Begin processing 225 (Dup H)

Photo before opening photo (104-0408)

Entire TEPA purgeable filled 0.0-0.5' interval transferred to stainless steel bowl

JEM 11/17/16

Location 80 Lister Ave Newark, NJ Date 11/17/16

Project / Client Tierra-NBSA Phase III

3/10

Before mixing photo (104-0409)

After mixing photo (104-0410)

Sample time 0850

See sheets for more info

Bottle	Weight	OK	Note
807 Teal 1	7300	Y	
Teal 2	7300		GS
Teal 3	245.2		ROD
Teal 4	183.7		TEPA
807 Amber	150.8		
Hg / Mthg	107.02		

DUP Bottle	Weight	OK	Note
807 Teal 1	7300	Y	
Teal 2	7300		GS
Teal 3	7300		ROD
Teal 4	261.65		TEPA
807 Amber	147.83		
Hg / Mthg	105.50		

0905 finish processing 225

0908 Begin processing 224 (MS / MSD)

EPA split collected here for metals

Mercury, methyl mercury, PCBs, pesticides

PAHs, organo fluorine, low 407 DMBKX2

Before opening photo (104-0411)

JEM 11/17/16

Red on 10/1/16

6 Location 40 Lister Ave. Newark, NJ Date 11/17/16

Project / Client Tierra-NBSA Phase III

4/10

Encore TEPT purgases filled 0.0-0.5'  
 Interval transferred to stainless steel bowl

Before mixing photo (104-0412)

After mixing photo (104-0413)

Sample time 0920

See sheets for more info

Bottle	Weight	OK	Note
Bot Teal 1	> 300	Y	
MS Teal 1	> 300		
MXD Teal 1	> 300		
Teal 2	> 300		GS
MS Teal 2	> 300		GS
MXD Teal 2	> 300		GS
Teal 3	<del>300</del> 300.39		RDD
MS Teal 3	<del>300</del> 270.1		RDD
MXD Teal 3	<del>300</del> 281.9		RDD
Bot Amber	109.4		<del>TEPT</del>
MS Bot Amber	123.93		<del>TEPT</del>
MXD Bot Amber	134.4		<del>TEPT</del>
Hg/Mth	111.5		
MS Hg/Mth	110.07		
MXD Hg/Mth	116.9		
Teal 4	212.2		TEPT
Teal 4	237.54		TEPT
Teal 4	107.0		TEPT <sup>11/17/16</sup>

7 Location 80 Lister Ave. Newark, NJ Date 11/17/16

Project / Client Tierra-NBSA Phase III

5/10

0945 Finish processing 224

0951 Begin processing 220

Before opening photo (104-0414)

Encore TEPT purgases filled 0.0-0.5'  
 Interval transferred to stainless steel bowl

Before mixing photo (104-0415)

After mixing photo (104-0416)

Sample time 10:00

See sheets for more info

Bottle	Weight	OK?	Note
Bot Teal 1	391.9	Y	
Teal 2	> 300		GS
Teal 3	> 300		RDD
Teal 4	235.4		TEPT
Bot Amber	119.29		
Hg/Mth	104.21		

1007 Finish processing 220

1009 Begin processing 215

Before opening photo (104-0417)

Encore TEPT purgases filled 0.0-0.5'  
 Interval transferred to stainless steel bowl

Before mixing photo (104-0418)

After mixing photo (104-0419)

Sample time 1020

See sample sheets for more info

<sup>11/17/16</sup>  
*Rite in the Rain*

Location 80 Lister Ave. Newark, NJ Date 11/17/16Project / Client Tierra-NBSA Phase III

6/10

Bottle	Weight	OK	Note
<del>807</del> Teal 1	305.7	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	<del>184</del> 182.4		TEPH
<del>807</del> Amber	155.86		
Hx/MHy	102.06		

1024 Finish processing 215

1028 Begin processing 216

Before open photo (104-0420)

Entire TEPH purgaslu filled 0.0-0.5 interval transferred to stainless steel bowl

Before mixing photo (104-0421)

After mixing photo (104-0422)

Sample time 10:40

See sheets for more info

Bottle	Weight	OK?	Note
<del>807</del> Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	168.2		TEPH
<del>807</del> Amber	149.37		
Hx/MHy	108.41		

1045 Finish processing 216

JEM 11/17/16

Location 80 Lister Ave. Newark, NJ Date 11/17/16Project / Client Tierra-NBSA Phase III

7/10

1047 Begin processing 209,  
 Before opening photo (104-0423)  
 Entire TEPH purgaslu filled 0.0-0.5 interval transferred to stainless steel bowl  
 Before mixing photo (104-0424)  
 After mixing photo (104-0425)  
 Sample time 11:00

See sheets for more info

~~807~~ EPA split for metals, mercury, methyl mercury, PCB, pesticides, PAHs, dioxin/furans TC 407 Amber X2

Bottle	Weight	OK?	Note
<del>807</del> Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	159.9		TEPH
<del>807</del> Amber	137.26		
Hx/MHy	119.31		

1103 Finish processing 209

1117 Begin processing CAMP 02 - 5 buckets

Empty contents of each bucket into stainless steel bowl, decant water from each of the 5 bowls, collect PID readings, take photos before mixing

JEM 11/17/16

JEM

10 Location 80 Lister Ave, Newark, NJ Date 11/17/16

Project / Client Tierra - NBSA Phase III

4/10

Composite consists of locations 253,  
254, 258, 260, 262

Homogenize each bowl  
Collect 16oz of homogenized sediment  
from each bowl and composite into  
a single skinned steel bowl. homogenize  
composite sample, collect after mixing  
photo

Sample time 1145

See sheet for more info

Bottle	Weight	OK?	Notes
8oz Teal 1	359.16	Y	
Teal 2	> 300		CWS
Teal 3	> 300		PCDD
Teal 4	> 300		TEPH
8oz Amber	303.55		
H <sub>2</sub> O / M <sub>2</sub> O	96.03	Y	

1217 Finish processing Comp02

\*1150 Boat crew on site, drops off cores & buckets

\*1200 Boat crew off site, JH logs in cores & buckets.

1220 Break for lunch

1230 AA-D off site.

1300 CD off site.

JH 11/17/16

Location 80 Lister Ave, Newark, NJ Date 11/17/16

11

Project / Client Tierra - NBSA Phase III

9/10

1310 Begin ponar decon. Procedure: rinse  
with tap water to remove gross  
sediment. Scrub with brush and  
alcanox solution, rinse with tap  
water. Rinse with 10% nitric  
acid, rinse with DI water. Rinse  
with methanol, rinse with hexane,  
flush with DI water (5x).

1340 Ponar decon complete, prepare for field  
blank collection.

1355 Collect NB3162FB. Procedure:  
pour lab-supplied DI water or  
hexane through petite ponar directly  
into lab-supplied pre-preserved  
bottleware.

1415 Blank collection complete. Check  
pH of preserved blanks

ID	Analyte	pH	OK?
	TEPHalk	i	yes
NB3162FB	Metals	i	yes
	TOC	i	yes
	CN	12.3	yes

1425 Pack coolers.

JH 11/17/16  
Rosenstein

Location 80 Lister Ave, Newark NJ Date 11/17/16Project / Client Tierra- NBSA Phase III

10/10

- 1530 Coolers packed, JH+ZL condense sediment + core liner/cap drums.
- 1535 JH offsite with Vista cooler to FedEx.
- 1610 Drum condensing complete.
- 1615 ZL offsite. JH waits for Eurofins courier.
- 1640 Eurofins courier onsite, drops off 5 sets of Hg/Methg trip blanks, picks up samples.
- 1650 Eurofins courier offsite.
- 1655 JH offsite.

~~JH 11/17/16~~

Location \_\_\_\_\_ Date \_\_\_\_\_

Project / Client \_\_\_\_\_

Location 80 Lister Ave. Newark NJ Date 11/17/16Project / Client Tierra- NBSA Phase III

10/10

- 1530 Coolers packed, JH+ZL condense sediment + core liner/cap drums.  
 1535 JH offsite with Vista cooler to FedEx.  
 1610 Drum condensing complete.  
 1615 ZL offsite. JH waits for Eurofins courier.  
 1640 Eurofins courier onsite, drops off 5 sets of Hg/Methg trip blanks, picks up samples.  
 1650 Eurofins courier offsite.  
 1655 JH offsite.

~~JH 11/17/16~~

Location 80 Lister Ave. Newark NJ Date 11/16/16Project / Client Tierra- NBSA Phase III

1/7

Personnel: Julianne Heger (author)  
 Zach Heiswe  
 Jessie Murray } Arcadis

SOW: sediment processing, equipment decon, blank collection

Weather: sunny, 50s

0730 All onsite, H+S meeting, ZL calibrates air monitors.

0745 Dan tyvek, prepare for sediment processing.

0753 Begin processing 231

Before opening photo (104-0433)

Ensure TEPT purge tubes filled 0.0-0.5' interval transferred to stainless steel bowl

Before mixing photo (104-0434)

After mixing photo (104-0435)

Sample time 0805

See sheets for more info

Bottle	Weight	OK?	Notes
807 Teal 1	391.1	Y	
Teal 2	> 300		AS
Teal 3	> 300		ALDO
Teal 4	199.9		TEPT
807 Amber	125.24		
Hg/Mtk	107.17		

*11/16/16*

Location 80 Luster Ave Newark, NJ Date 11/18/16

Project / Client Tierra - NBSA Phase III

12/7

0813 Finish processing 231

0814 Begin processing 226

Before opening photo (104-0436)

Entire TEPT purgeables file ↓ 0.0-0.5 interval  
transferred to stainless steel bowl

Before mixing photo (104-0437)

After mixing photo (104-0438)

Sample time 0825

See sheets for more info

Bottle	Weight	OK	Note
Bot Teal 1	387.7	Y	
Teal 2	7300		GS
Teal 3	7300		PDD
Teal 4	131.8		TEPT
Bot Amber	142.21		
Hg/Mtg	107.13	↓	

0815 Enrique Castro (Tierra) onsite.

0831 Finish processing 226

0832 Start processing 227

Before opening photo (104-0439)

Entire TEPT purgeables file ↓ 0.0-0.5 interval  
transferred to stainless steel bowl

Before mixing photo (104-0440)

After mixing photo (104-0441)

Sample time 0845

J\* 11/18/16

Location 80 Luster Ave Newark, NJ Date 11/18/16

Project / Client Tierra - NBSA Phase III

3/7

See sheets for more info

Bottle	Weight	OK	Note
Bot Teal 1	7300	Y	
Teal 2	7300		GS
Teal 3	7300		PDD
Teal 4	176.8		TEPT
Bot Amber	181.55		
Hg/Mtg	109.90	↓	

0849 Finish processing 227

0851 Begin processing COMP-06

includes locations 273 and 275

Empty contents of each bucket into  
stainless steel bowl, decant water from  
each bucket, collect PID readings, take  
photos before homogenizing, homogenizeeach bowl, collect 10g of homogenized  
sediment from each bowl and composite into

a single stainless steel bowl, homogenize

Composite sample, collect after-mixing photo

Sample time 0915

Mix each 10g X3 at each bowl

0855 Alain Hebert (Arcadis) onsite

0900 Jordan (EPA) onsite

See sheet for more info

J\* 11/18/16

Rite in the Rain

16 Location 80 Uster Ave Newark NJ Date 11/18/16

Project / Client TURA / NBSA Phase III

4/7

Bottle	Weight	OK?	Note
Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	> 300		TEPH
8oz Amber	354.69		
Hg/MH	126.78	↓	

photo of large rocks to samples 104-0445

0929 Finish processing CAMP-06

0929 Begin processing CAMP-07 -

includes locations 277 and 278

Empty contents in stainless steel bowl for each bucket, decant water from bowl, collect

PID readings, take photos before mixing,

homogenize each bowl, combine 100g x 3

of each bowl into single stainless steel

bowl, homogenize composite sample. collect

after mixing photo

Sample time 0955

Bottle	Weight	OK?	Notes
Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		
Teal 4	> 300		
8oz Amber	318.71		
Hg/MH	128.85	↓	

11/18/16

17 Location 80 Uster Ave Newark NJ Date 11/19/16

Project / Client Tierra / NBSA Phase III

5/7

EPA split collected from this sample for metals, mercury, methyl mercury, PCBs, pesticides, PAHs, dioxins/furans, Tox 4oz Amber X2

1000 Finish processing CAMP 07

1005 Begin processing 233

Before opening photo (104-0449)

Evore TEPA pesticides filed 0.0-0.5' material transferred to stainless steel bowl

Before Mixing photo (104-0450)

After mixing photo (104-0451)

Sample time 1020

See sheet for more info

Bottle	Weight	OK?	Note
Teal 1	358.0	Y	
Teal 2	258.4		GS
Teal 3	208.0		PCDD
Teal 4	78.6		TEPH
8oz Amber	89.32		
Hg/MH	96.49	↓	

EPA split collected for metals, mercury, methyl mercury, PCBs, pesticides, PAHs, dioxins/furans, Tox 4oz Amber X2

1024 Finish processing 233

11/19/16

Rite in the Rain

18 Location 80 Lister Ave. Newark, NJ Date 11/18/16

Project / Client Tierra - NBSA Phase III

6/7

1045 Begin equipment decon: bowls, spoons, drill bits, and hacksaw blades decontaminated by following procedure:

Spray with tap water to remove gross sediment. Scrub with a konox solution, rinse with tap water.

Rinse with 10% nitric acid, rinse with DI water. Rinse with methanol, rinse with hexane, flush with DI water (5x volume). Stage equipment in plastic-lined enclosures to air dry.

1125 JH collects equipment blank: NB3163FB by pouring lab-supplied DI water or hexane over hacksaw blade into stainless steel bowl. Dip drill bit, stir once with stainless steel spoon. Pour directly into lab-supplied pre-preserved bottleware.

1155 Blank collection complete.

1205 AH+EC offsite.

\*1200 JG offsite.

1220 check pH of preserved blanks.

1235 Break for lunch.

JH 11/18/16

Location 80 Lister Ave. Newark, NJ Date 11/18/16

Project / Client Tierra - NBSA Phase III

19

7/7

ID	Analyte	pH	ok?
NB3163FB	TEPH-alk	1	yes
	Metals	1	yes
	TOC	1	yes
	CN	12.3	yes

~~1255~~  
~~1235~~  
11/18/16

Resume decon. JM packs coolers.

1340 Eurofins courier onsite, picks up coolers.

1400 Eurofins courier offsite.

1410 Decon complete, make ice bags.

1430 House keeping.

1445 All offsite.

JH  
11/18/16

Location 80 Lister Ave. Newark, NJ Date 11/29/16Project / Client Tierra-NBSA Phase III

11- 1/3

Personnel: Julianne Haggerty (author)

Zach Leisur

Arcadis

SOW: sediment processing, ponar decon, blank collection

Weather: rain, 50s.

1155 JH+ZL onsite, ZL calibrates air monitors

1200 H+S meeting

1215 Prepare for sediment processing

1225 pon tyvek.

1230: Buckets 268, 269, and 270 removed from refrigerator. Individual buckets with samples inside liners were removed from refrigerator and sample sediment was placed into shallow steel bowls (one location per bowl). Sediment samples were photographed and described then homogenized and described according to Composite Surface Sediment Sample Processing Form. Sample time = 1330.

JH 11/29/16

Location 80 Lister Ave. Newark, NJ Date 11/29/16Project / Client Tierra-NBSA Phase III

2/3

Bottle	Weight	ok	Notes
8oz Teal 1	358.8 <sup>2H</sup>	Y	
Teal 2	>300		GS
Teal 3	7300		PCDD etc.
Teal 4	>300		TEPH
8oz Amber	288.84		
Hg/MHg	98.15	↓	
1330	Sediment processing complete. Begin ponar decon: rinse with tap water, scrub with alconox solution, rinse with tap water. Rinse with 10% nitric acid, rinse with DI water. Rinse with methanol, rinse with hexane, flush with DI water (5x volume).		
1400	Decon complete, set up for Ponar blank collection.		
1430	Collect NB3164FB from ponar dredges deconned today. Procedure: pour lab-supplied DI water or hexane through petite ponar into lab-supplied pre-preserved bottleware.		
1445	Blank collection complete. Check pH of preserved blanks.		

JH 11/29/16

Rite in the Rain.

17: 3/3

ID	Analyte	pH	OK?
NB3164FB	TEPH-alk	1	yes
	TOC	1	yes
	Metals	1	yes
	CN	12.3	yes

1450 Pack coolers.

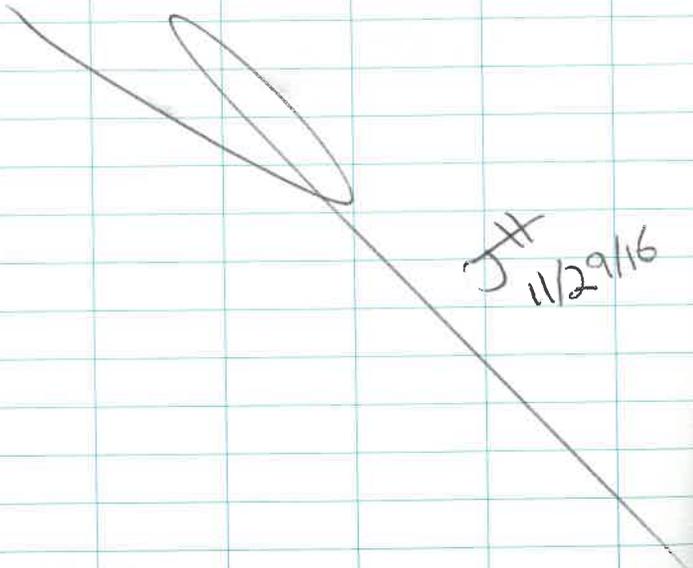
1545 Coolers packed.

1600 ZL offsite with Vista cooler for FedEx. JH waits for Eurofins.

1735 ELLE courier onsite, picks up samples.

1740 ELLE courier offsite.

1745 JH offsite.



JH  
11/29/16

22 Location 80 Lister Ave. Newark, NJ Date 11/29/16

Project / Client Tierra-NBSA Phase III

1. 3/3

ID	Analyte	pH	OK?
NB3164FB	TEPH-alk	1	yes
	TOC	1	yes
	Metals	1	yes
	CN	12.3	yes

1450 Pack coolers.

1545 Coolers packed.

1600 ZL offsite with Vista cooler for FedEx. JH waits for Eurofins.

1735 ELLE carrier onsite, picks up samples.

1740 ELLE carrier offsite.

1745 JH offsite.

JH  
11/29/16

23 Location 80 Lister Ave. Newark, NJ Date 12/1/16

Project / Client Tierra-NBSA Phase III

23

1/8

Personnel: Julianne Haggerty (author)  
Zach Leisure } Arcadis  
Nick Camrie }  
Brian Mikucki (Tierra)

SOW: sediment processing

Weather: sunny, 50s

0730 All onsite, equipment calibration

0740 H+S meeting.

0756 Comp 09 samples removed from refrigerator. Locations 284-288.

815 Jordan (EPA rep.) onsite

Locations 284-288 sediment samples were removed from buckets and placed into individual stainless steel bowls. Pre-mixing samples were documented according to the Composite Surface Sediment Sample Processing Form, including descriptions and photos. Samples were then homogenized. 1, 16oz jar was filled from each location and placed into a Comp 09 stainless steel bowl. Locations were then homogenized to create Comp 09. Bottles were filled.

JH 12/1/16

Site in the Rain

Location 80 Lister Ave, Newark NJ Date 12/1/16

Project / Client Tierra - NBSA Phase III

2/6

Bottle	weight (g)	ok?	notes
Teal 1	365.7	Y	
Teal 2	7300	Y	GS
Teal 3	7300	Y	PCDDs
Teal 4	7300	Y	TEPH
8oz amber	306.3	Y	
Hg/MHg	98.6	X	

850: Comp 08 samples removed from refrigerator. Locations 276, 281-283 were removed from buckets and placed in stainless steel. Pre-mixing samples were documented according to the composite surface Sediment Sample processing form, including descriptions and photos. Samples were homogenized, 1 16oz jar collected from each location and placed in Comp 08 stainless steel bowl. Locations were then homogenized to create (Comp 08 Bottle were filled)  
See Processing form for detail.

JH 12/1/16

Location 80 Lister Ave Newark NJ Date 12/1/16

Project / Client Tierra - NBSA Phase III

3/6

Bottle	Weight (g)	ok?	notes
Teal 1 (8oz)	360.0	Y	
Teal 2	>300	Y	GS
Teal 3	7300	Y	PCDDs
Teal 4	7300	Y	TEPH
8oz amber	298.41	Y	
Hg/MHg	98.66	Y	

0935 Comp 05 Removed from refrigerator. Location 266 and 267 removed from bucket and emptied into individual stainless steel bowl, Decanted, pre-mixing photo taken, screen w/ pid, homogenized. 3, 16oz jar from each bowl collected and emptied into a third stainless steel bowl. Sample sediment then homogenized, described, photo graphed and used to fill bottles were  
See processing form for details

JH 12/1/16

Location 80 Lister Ave Newark NJ Date 12/1/16

Project / Client NBSA (Tierra) Phase III

4/6

Bottle	Weight	OK?	notes
Teal 1 (8oz)	7300	y	
Teal 2	7300	y	GS
Teal 3	7300	y	PCDDs
Teal 4	7300	y	TEPH
8oz amber	402.9	y	
H <sub>2</sub> /mly	118.0	y	

1005: ~~0~~<sup>PL 12:00</sup> Break from processing

1015: Resume processing

1020: Begin processing 249.

Before opening photo (104-0470). Encases TEPH  
 purgeables and VOCs filled. 0.0-0.5 interval  
 transferred to stainless steel bowl. Before mixing  
 photo (104-0471) and after (104-0472). Sample  
 time: 1035 See sheet for more info.

Bottle	weight (g)	OK?	notes
8oz Teal 1	7300	y	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	225.5		TEPH
8oz amber	209.8		
H <sub>2</sub> /MB	114.8	x	

1025: Boat crew on-site

JH 12/1/16

Location 80 Lister Ave Newark NJ Date 12/1/16

Project / Client NBSA (Tierra) Phase III

5/6

1045: Begin processing 283. Boat crew off-site  
 Before opening photo (104-0473). Encases TEPH  
 purgeables + VOCs filled. 0.0-0.5 interval transferred  
 to stainless steel bowl. Before mixing photo (104-0474)  
 and after (104-0475). Sample time 1100.

See sheet for more info.

Bottle	weight (g)	OK?	notes
8oz Teal 1	7300	y	
x	7300	x	
Teal 2	7300		GS
x	7300	x	
Teal 3	7300		PCDDs
x	7300	x	
Teal 4	134.6		TEPH
x	95.2		
8oz amber	185.9		
x	283.1		
x	183.7		
H <sub>2</sub> /MB	136.0		
x	139.0		
x	144.9	x	

JH 12/1/16  
Note on the rain.

Location 80 Lister Ave, Newark, NJ Date 12/1/16

Project / Client NBSA (Terra) Phase III

6/6

MS/MSD taken

EPA split taken

1124: End processing 283

Begin processing 237

Before opening photo (104-0476). Encores TEPH purgables and VOCs filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0477) and after (104-0478). Sample time 1140

See sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	378.1	2H ✓	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	246.6		TEPH
8oz amber	213.5		
Hg/MHg	100.5	2H ✗	

1142 End processing 237

Begin processing 247

Before opening photo (104-0479). Encores TEPH purgables and VOCs filled 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0480) and after after (104-0481)

Sample time: 1200. See sheet for more info.

12/1/16

Location 80 Lister Ave, Newark, NJ Date 12/1/16

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Bottle	weight (g)	ok?	notes
8oz Teal 1	3928	2H ✓	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	224.7		TEPH
8oz amber	201.3		
Hg/MHg	99.9	2H ✗	

1201: End processing 247; break for lunch

1245: Begin processing 236.

Before opening photo (104-0482). Encores TEPH purgables and VOCs filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0483) and after (104-0484).

Sample time 1300. See sheet for more info

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300	2H ✓	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	138.1		TEPH
8oz amber	228.3		
Hg/MHg	100.1	2H ✗	

1305: End processing 236

1306: Begin processing 248

12/1/16

Return to the Rain



8/16

Before opening photo (104-0485). Deacons and TEPH purgables and VOCs filled, 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0486) and after (104-0487). Sample time 13:20. See sheet for additional info.

Bottle	Weight (g)	sh?	notes
Bottle 1	348.4	24	Yes
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	147.7		TEPH
Bottle 2	139.2		
Hg/Mth	99.5	24	X

1321: End processing 248

1330: Make ice bags

1400: Cooler packing

1405 JG offsite.

1435 BM offsite.

1445 All coolers packed.

1500 ZL+NC offsite. ZL to drop off Vista cooler at FedEx. JH waits for Eurofins courier.

1545 Eurofins courier onsite, picks up coolers.

1555 JH offsite. Eurofins courier offsite.

12/1/16

1/6

Personnel: Julianne Haggarty (author)

Zach Leisure

Nick Conrie

} Arcadis

SOW: sediment processing, equipment decon, blank collection

Weather: sunny, 40s

0725 ZL+JH onsite, calibrate air monitors

0735 NC onsite, H+S meeting

\*0730 Brian M. Kucki (Tierra) onsite.

0750 Started Processing Comp 04

Removed each location and placed sediment into individual stainless steel bowls. Each location was described and documented. See processing sheet. Locations were homogenized. 1, 16 oz jar of each location was then placed into another final Comp 04 stainless steel bowl. Once all 7 locations were added into final bowl, sample was homogenized and then documented. Bottleware filled

2/1 12/2/16

2/6

Bottle	Weight (g)	OK?	notes
Teal 1 (Boz)	385.8	yes	
Teal 2	>300	yes	GS
Teal 3	>300	yes	PCDDs
Teal 4	>300	yes	TEPH
Boz amber	327.3	yes	
Hg/Milk	104.71	yes	

847: Begin processing 289

Before opening photo (104-0497). Encore, TEPH purgables and VOCs filled, 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0498) and after (104-0499) Sample time

900: See sheet for more info.

Bottle	weight (g)	OK?	notes
Boz Teal 1	730.8	2H ✓	
Teal 2	730.0		GS
Teal 3	730.0		PCDDs
Teal 4	193.7		TEPH
Boz amber	271.4		
Hg/Milk	127.0	2H ✓	

905: End processing 289

JH 12/2/16

3/6

908: Begin processing 290

Julianne called Jordan EIA rep. Okay to proceed and sample 290 filling EIA split bottleware

Before opening photo (104-0500). Encore, TEPH purgables and VOCs filled, 0.0-0.5 interval transferred to stainless steel bowl. Before mixing photo (104-0501) and after (104-0502). Sample time 9:20. See sheet for more info.

Bottle	weight (g)	OK?	notes
Boz Teal 1	730.6	2H ✓	
Teal 2	730.0		GS
Teal 3	730.0		PCDDs
Teal 4	114.7		TEPH
Boz amber	101.7		
Hg/Milk	132.8	2H ✓	

920 Jordan (Boz) on-site

925 End processing 290

928 Break

950 Begin equipment decon. Will segregate 30 sets of spoons, bowls, drill bits, and hacksaws, ~~and etc~~ deconed 11/18/16.

JH 12/2/16

Rite in the Rain

4/6

950 cont'd. An additional 15 sets will be cleaned today and set aside for use at end of program. Decon procedure is as follows:

Spray with tap water to remove gross sediment. Scrub with alconox solution, rinse with tap water.

Rinse with 10% nitric acid, rinse with DI water. Rinse with methanol, rinse with hexane, flush with DI water (5x volume). All equipment staged in plastic-lined enclosures to air dry and wrapped in aluminum foil (shiny side out).

1100 Equipment decon complete, begin ponar decon by same procedure described above.

1115 BM offsite.

1135 Ponar decon complete. JG offsite.

1140 Break for lunch.

1210 Prepare for field blank collection.

~~12/2/16~~

5/6

1235 ZL+NC collect ponar field blank: NB3165FB. Procedure: pour lab-supplied DI water or hexane through petite ponar (deconed today) directly into lab-supplied pre-preserved bottleware.

1250 JH collects equipment field blank: NB3166FB. Procedure: pour lab-supplied DI water or hexane into stainless steel bowl over hacksaw blade. Stir once with stainless steel spoon. Dip drill bit. Pour directly into lab-supplied pre-preserved bottleware.

1255 Ponar blank collection complete, wrap bottleware and make ice bags.

1320 Equipment blank collection complete. Check pH of preserved blanks

ID	Analyte	pH	ok?
NB3165FB	TEPH-alk	1	Yes
	TOC	1	↓
	Metals	1	↓
	CN	12.3	X
NB3166FB	TEPH-alk	1	yes
	TOC	1	↓
	Metals	1	↓
	CN	12.3	↓

JH 12/2/16  
Return the R

Location 80 Lister Ave. Newark, NJ Date 12/2/16Project / Client Tierra - NBSA Phase III

6/6

1415 coolers packed. ZL + NC offsite.  
 ZL takes cooler with field blanks  
 for Eurofins Frontier, will drop off at  
 FedEx for Saturday delivery. JH  
 waits for Eurofins courier.

1505 Eurofins courier onsite, picks up coolers.

1515 Eurofins courier + JH offsite.

JH  
 12/2/16

Location \_\_\_\_\_ Date \_\_\_\_\_

Project / Client \_\_\_\_\_

Location 80 Lister Ave. Newark, NJ Date 12/2/16Project / Client Tierra-NBSA Phase III

6/6

- 1415 coolers packed. ZL+NC off-site.  
 ZL takes cooler with field blanks  
 for Eurofins Frontier, will drop off at  
 FedEx for Saturday delivery. JH  
 waits for Eurofins courier.
- 1505 Eurofins courier on-site, picks up coolers.
- 1515 Eurofins courier + JH off-site.

JH  
 12/2/16

Location 80 Lister Ave Newark NJ Date 12/5/16Project / Client Tierra-NBSA Phase III

1/1

Personnel: Zach LeTour } Arcadis  
 Cynthia Buchanan }

SOW: Panar blank

weather: Sunny 4-45

1500: On-site with boat crew and Cynthia

1515: H2S meeting with Cynthia

1525: Begin panar decon

1630: Begin panar field blank collection

ID	Analyte	pH	ok?
NBS167FB	TPH-alk	1	Yes
	TOC	1	
	Metals	1	
	Cu	12.3	X

1745: Cynthia off-site

1800: Cooler packing and housekeeping

1850: Off-site

ZL  
 12/5/16

Location 80 Lister Ave. Newark, NJ Date 12/6/16  
 Project / Client Tierra - NBSA Phase III

1/15

Personnel: Julianne Haggarty (author)  
 Nick Comrie  
 Cynthia Buchanan } Arcadis

SOW: sediment processing

Weather: sunny, 40s

0735 All onsite. NC calibrates air monitors.

0740 H+S meeting.

0809 Take sample: 232 from Refrigerator. Begin Processing. Remove sediment from bucket and place in to stainless steel. water decanted, photograph before (104-0504). Homogenize sediment. Post mixing photo taken (104-0505). Sediment described. Fill Bottle with

Bottle	Weight(g)	OK?	notes
Teal 1 8oz	358.7	y	
Teal 2	> 300	y	GS
Teal 3	> 300	y	PCDDs
Teal 4	> 300	y	TEPH
8oz amber	301.95	y	
Hg/MHg	101.94	y	

JH 12/6/16

Location 80 Lister Ave Newark, NJ Date 12/6/16  
 Project / Client Tierra - NBSA Phase III

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0825 sample time

0835 Processing 232 complete

0839 Begin processing 242

242 Remove from Refrigerator, placed in stainless steel bowl, water decanted and disposed. Premixing photo taken (104-0508) Sediment Homogenized. Post-mixing photo taken (104-0509) Sediment described, Fill Bottle with. See sediment processing sheets for detail

Bottle	Weight(g)	OK	notes
Teal 1 8oz	350.8	yes	
Teal 2	> 300.0	↓	GS
Teal 3	> 300		PCDDs
Teal 4	> 300		TEPH
8oz amber	300.11		
Hg/MHg	100.18		

0855 sample time

0856 End Processing 242

0857 Begin Processing 241

Remove sediment bucket from Refrigerator. place sediment into stainless steel bowl, decant/dispose

JH 12/6/16

Rite in the Rain

40 Location 80 Lister Ave Newark, NJ Date 12/6/16  
 Project / Client Tierra-NBSA Phase III

3/15

of water. Pre-mixing photo taken (104-0510)  
 Homogenized sediment, post mixing photo  
 (104-0511) Sediment Description, Fill Bottle  
 were. Sample time: 0915. See sediment processing  
 forms for details.

Bottle	Weight (g)	OK	Notes
Teal 1 802	349.0	yes	
Teal 2	>300	yes	GS
Teal 3	>300	yes	PCDDs
Teal 4	>300	yes	TEPH
802 amber	345.88	yes	
Hg/MeHg	100.90	yes	

0916 Processing ends 241

0916 Begin Processing 230

Sediment removed from refrigerator, placed  
 in stainless bowl, decant water, decant  
 water and dispose, pre mixing photo (104-0512),  
 Homogenized sediment post mixing  
 photo (104-0513), Sediment Description  
 Fill Bottle were, sample time: 0930  
 See sediment processing forms for detail.

JH 12/6/16

41 Location 80 Lister Ave Newark, NJ Date 12/6/16  
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Bottle	Weight (g)	OK?	Notes
802 Teal 1	362.3	yes	
Teal 2	>300	↓	GS
Teal 3	>300		PCDDs
Teal 4	>300		TEPH
802 amber	327.2		
Hg/MeHg	102.00		

0934 End Processing 230

0952 Begin Processing 239

Before photo taken (104-0514)  
 Encore TEPA Purgeables filled 0.0-0.5-  
 interval transferred to stainless steel bowl

Before mixing: (104-0515)

After mixing: (104-0516)

Sample Time: 1010, see sheets for more info.

Bottle	Weight (g)	OK?	Notes
802 Teal 1	347.4	yes	
Teal 2	>300	↓	GS
Teal 3	199.4		PCDDs
Teal 4	84.0		TEPH
802 Amber	173.32		
Hg/MeHg	99.8		

JH 12/6/16 *Photo in the Rain*

5/15

1021 End Processing 2391022 Begin Processing 234

Before photo: (104-0517)

Encore TEPT Purgeable filled. 0.0'-0.5'  
interval transferred to stainless bowl

Before mixing: (104-0518) After mixing (104-0519)

Sample time: 1035, See Processing sheets for details

Bottle		Weight (g)	ok?	notes
8oz	Tall	>300	y	
	Teal	2		GS
	Teal	3		PLDD
	Teal	4		TEPT
8oz Amber		109.69		
MH <sub>2</sub> /H <sub>2</sub>		112.44		

Bottle		Weight (g)	ok?	notes
Teal	8oz	>300	yes	
	Teal	2		GS
	Teal	3		PLDD
	Teal	4		TEPT
8oz Amber		70.72		
H <sub>2</sub> /MH <sub>2</sub>		104.88		

JH 12/6/16

6/15

1104 Processing ends 2341105 Begin Processing 245

Before mixing photo: (104-0520)

Encore TEPT Purgeable filled. 0.0'-0.5'  
interval transferred to stainless steel bowlBefore mixing: (104-0521) after mixing:  
(104-0522) Sample time: 1120

See Processing sheets for details

Bottle		Weight (g)	ok?	notes
Teal	8oz	>300	yes	
	Teal	2		GS
	Teal	3		PLDD
	Teal	4		TEPT
8oz Amber		86.34		
H <sub>2</sub> /MH <sub>2</sub>		105.8		

1130 End Processing 2451130 Begin Processing 235

Before mixing photo: (104-0524)

Encore TEPT PURGEABLE FILLED. 0.0'-0.5'  
interval transferred to stainless steel bowl

Before mixing (104-0525) After mixing (104-0526)

Sample time 11:40, See processing sheet for details

JH 12/6/16

Kitt on the rain

7/15

Bottle		weight (g)	OK	notes
8 oz	teal 1	<del>350</del> 357	yes	
18 oz	teal 2	<del>7300</del> > 300	yes	GS
18 oz	teal 3	7300	yes	PCDDS
18 oz	teal 4	229.3	yes	TEPH
8 oz	Amber	<del>242</del> 242.12	yes	
MHg/Hg		98.81	yes	
1153 END PROCESSING			235	

LUNCH

1239 START PROCESSING 228

Before photo: (104-0527)

Encore TEPH Pulverable filled 0.0' - 0.5'

Interval transferred to S.S. bowl.

Before mixing (104-0528) After mixing (104-0530)

SAMPLE TIME 1255, see processing sheet for details

Bottle		weight	OK	notes
8 oz	teal 1	370.3	yes	
18 oz	teal 2	7300	yes	GS
18 oz	teal 3	7300	yes	PCDDS
18 oz	teal 4	164.8	yes	TEPH
8 oz	Amber	280.05	yes	
MHg/Hg		109.69	yes	

JH 12/6/16

8/15

Bottle		weight	OK	NOTES
8 oz teal 1		337.2	yes	
18 oz teal 2		7300.0	yes	GS
18 oz teal 3		7300.0	yes	PCDDS
18 oz teal 4		7300.0	yes	TEPH
8 oz Amber		117.22	yes	
MHg/Hg		108.21	yes	

Bottle		weight	OK	Notes
8 oz teal 1		<del>365</del> 365.65	yes	
18 oz teal 2		7300.00	yes	GS
18 oz teal 3		7300.00	yes	PCDDS
18 oz teal 4		272.6	yes	TEPH
8 oz Amber		87.31	yes	
MHg/Hg		106.34	yes	

1326 End Processing 228

1326 BEGIN Processing 222

Before photo (104-0531)

Encore TEPH Pulverable filled 0.0' - 0.5'

Interval transferred to stainless bowl

Before mixing (104-0532) After mixing (104-0534)  
photo photo

SAMPLE TIME 1340,

See processing sheet for details

JH 12/6/16

Rate in the Rain

9/15

Bottle	Weight (g)	OK	Notes
08oz kcal 1	363.78	Y	GS PCDDs TEPH
18oz kcal 2	7300.0	Y	
18oz kcal 3	7300	Y	
18oz kcal 4	196.2	Y	
08oz Amber	144.56	Y	
MHg/Hg 2oz	98.33	Y	

1346 END PROCESSING 222

1348 START PROCESSING 212

Before photo (104-0535)

ENCORE TEPH purgeable filled 0.0'-0.5'

INTERVAL TRANSFERRED TO STAINLESS STEEL BOWLS

Before mixing photo (104-~~0536~~ 0537)

After mixing photo (104-0538)

SAMPLE TIME 1405, see processing sheet for detail

Bottle	Weight (g)	OK	Notes
8oz kcal 1	348.93	YES	GS PCDDs TEPH
18oz kcal 2	7300.0	YES	
18oz kcal 3	7300.0	YES	
18oz kcal 4	267.4	YES	
8oz Amber	197.68	YES	
MHg/Hg 2oz	103.33	YES	

1404 END PROCESSING 212

JH 12/16/16

10/15

~~1405~~ START PROCESSING 218  
 Before photo (104-0539)  
 ENCORE TEPH purgeable filled 0.0'-0.5'  
 INTERVAL TRANSFERRED TO STAINLESS STEEL BOWL  
 Before mixing photo (104-0540) After mixing photo (104-0541)

SAMPLE TIME 1420

Bottle	Weight (g)	OK	Notes
08 oz kcal 1	7300.0	Y	GS PCDDs TEPH
18 oz kcal 2	7300.0	Y	
18 oz kcal 3	7300.0	Y	
18 oz kcal 4	210.60	Y	
08 oz AMBER	114.19	Y	
02 oz MHg/Hg	140.96	Y	

1421 END PROCESSING 218

1422 BEGIN PROCESSING 223

Before photo (109-0542)

1425 BOAT CREW ON SITE

ENCORE TEPH purgeable filled 0.0'-0.5'

INTERVAL TRANSFERRED TO STAINLESS STEEL BOWL

Before mixing photo (109-0543)

After mixing photo (109-0544)

SAMPLE TIME 1440

JH 12/16/16

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11/15

Bottle		Weight (g)	OK	Notes
08 oz	teal 1	7300.0	y	
18 oz	teal 2	7300.0	y	GS
18 oz	teal 3	7300.0	y	PCDDS
18 oz	teal 4	7300.0	y	TEPH
08 oz	Amber	228.91	y	
2oz	Mtg/Hg Plastic	141.25	y	

1442 END PROCESSING 225

1443 BEGIN Processing 229

Before Photo (104-0545)

Encore TEPH purgables filled 0.0' - 0.5'

Interval transferred to S.S. Bowl

Before mixing photo (104-0546)

After mixing photo (104-0547)

SAMPLE TIME 1455

Bottle		Weight (g)	OK	Notes
08 oz	teal 1	7300.0	y	
18 oz	teal 2	7300.0	y	GS
18 oz	teal 3	7300.0	y	PCDDS
18 oz	teal 4	7300.0	y	TEPH
08 oz	Amber	362.38	y	
02 oz	Mtg/Hg Plastic	130.35	y	

1504 END PROCESSING 229 Boat crew  
 12/6/16 offsite, Zach Leisure (Arcadis) stays to assist.

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12/6

1504 BEGIN Processing with 219  
 Before Photo (104-0548)  
 Encore TEPH purgables filled 0.0' - 0.5'  
 Interval transferred to stainless steel bowl  
 Before mixing photo (104-0549)  
 After mixing photo (104-0550)  
 SAMPLE TIME 1520

Bottle		Weight	OK	Notes
08 oz	teal 1	7300.0	y	
18 oz	teal 2	7300.0	y	GS
18 oz	teal 3	7300.0	y	PCDDS
18 oz	teal 4	7300.0	y	TEPH
08 oz	Amber	213.28	y	
02 oz	Mtg/Hg Plastic	118.32	y	

END PROCESSING 1522 219

1522 BEGIN PROCESSING 214

Before photo (104-0551)

Encore TEPH purgables filled 0.0' - 0.5'

Interval transferred to stainless steel bowl

Before mixing photo (104-0552)

After mixing photo (104-0553)

SAMPLE TIME 1535

12/6/16

Rite in the Rain

13/15

Bottle		weight (g)	OK	notes
08 oz	Teal1	7300.0	Y	
18 oz	Teal2	7300.0	Y	GS
18 oz	Teal3	7300.0	Y	PCDDs
18 oz	Teal4	160.9	Y	TEPH
08 oz	Amber	181.89	Y	
02 oz	Mylar Plastic	119.17	Y	

1539 END PROCESSING 2141542 BEGIN PROCESSING 208

Before photo (104-0554)

Encore TEPH purgeables filled 0.0'-0.5'  
interval transferred to stainless steel bowl

Before mixing photo (104-0555)

~~Before~~ After mixing photo (104-0556)

SAMPLE TIME 1600

Bottle		weight (g)	OK	NOTES
08 oz	Teal1	583.05	Y	
18 oz	Teal2	7300	Y	GS
18 oz	Teal3	7300	Y	PCDDs
18 oz	Teal4	150.9	Y	TEPH
08 oz	Amber	365.63	Y	
02 oz	Mylar Plastic	101.34	Y	

1557 END PROCESSING 208

JH 12/6/16

14/15

1600 NC packs coolers. CB+ZL decon pours.

JH prepares field blank NB3168FB.

Ponar decon procedure: spray with tap water to remove gross sediment. Scrub with alconox solution, rinse with tap water. Rinse with 10% nitric acid, rinse with DI water. Rinse with methanol, rinse with hexanes, flush with DI water (5x volume).

1630 Ponar decon complete.

1645 CB+ZL collect ponar field blank NB3168FB.

Procedure: pour lab-supplied DI water or hexane through deconned petite ponar directly into lab-supplied pre-preserved bottleware.

1655 Blank collection complete. Check pH of preserved blanks

ID	Analyte	pH	OK?
NB3168FB	TEPH-air	1	Yes
	TOC	1	
	Metals	1	
	CN	12.3	X

1710 ZL offsite.

JH 12/6/16

Rite in the Rain



52 Location 80 Lister Ave. Newark, NJ Date 12/6/16

Project / Client Tierra - NBSA Phase III

15/15

- 1745 All coolers packed.
- 1750 CB offsite.
- 1755 Eurofins courier onsite, picks up coolers.
- 1800 NC offsite, takes Vistax Frontier coolers to FedEx.
- 1820 Eurofins courier offsite.
- 1830 JH offsite.

JH  
12/6/16

53 Location 80 Lister Ave. Newark, NJ Date 12/7/16

Project / Client Tierra - NBSA Phase III

Y13

Personnel: Julianne Hagarky (author)  
 Jessie Murray } Arcadis  
 Nick Comrie }

SOW: sediment processing  
 Weather: overcast, 40s

0735 All onsite. NC calibrates air monitors

0740 Paul Brzozowski (Tierra) onsite.

0745 H+S meeting

0813 Begin processing 367

Before opening photo 104-0557

Encore TEPT Argonides and vials file d. 0.0-0.5 interval transferred to stainless steel bowl

Before mixing photo 104-0558

After mixing photo 104-0559

Sample time 825 see sheets for more info

Bottle	Weight	OK	Notes
Teal 1	389.8	Y	
Teal 2	> 300		AS
Teal 3	> 300		PCDD
Teal 4	202.0		TEPT
Bottle	186.28		
Hg/Mg	112.81	✓	

831 finish processing 367

JH 12/7/16 *Rite in the Rain*

Location 80 Lister Ave Newark, NJ Date 12/7/16Project / Client Tierra NBSA - Phase III

2/13

0833 Begin processing 369Before opening photo 104-0560

Encore TEPT purgases + vials filled 0.0-0.5

Interval transferred to stainless steel bowl

Before mixing photo 104-0561After mixing photo 104-0562Sample time 850 see sheets for more info

Bottle	Weight	OK	Note
087 Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	> 300		TEPT
089 Amber	232.9		
Hg/MHg	135.01		

0834 Finish processing 3690837 Begin processing 244Before opening photo 104-0563

Encore TEPT purgases + vials filled 0.0-0.5

Interval transferred to stainless steel bowl

Before mixing photo 104-0564After mixing photo 104-0565Sample time 0910

See sheets for more info

0900 Jordan (EPA) onsite. Paul Trudell (LBs) onsite.

JH 12/7/16

Location 80 Lister Ave Newark NJ Date 12/7/16Project / Client Tierra NBSA - Phase III

3/13

Bottle	Weight	OK	Note
087 Teal 1	<del>20.38</del> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	> 300 261.5		TEPT
087 Amber	251.7		
Hg/MHg	120.37		

0912 Finish processing 2440915 Begin processing 243Before opening photo 104-0566

Encore TEPT purgases + vials filled

0.0-0.5 interval transferred to stainless steel bowl

Before mixing photo 104-0567After mixing photo 104-0568Sample time 0930 see sheets for more info

Bottle	Weight	OK	Note
089 Teal 1	> 300	yes	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	163.60		TEPT
089 Amber	95.5		
Hg/MHg	121.81		

0939 Finish Processing 2430940 Begin processing 242 252 JH 12/7/16

JH 12/7/16

Return to Rain

56 Location 80 Lister Ave Newark NJ Date 12/7/14

Project / Client TURA NBSA Phase III

4/13

Before opening photo: 104-0569  
 Encore TEPH Purgeables filled (VOC) 0.0-0.5'  
 interval transferred to a stainless steel bowl

Before mixing: 104-0570  
 After mixing: 104-0571, Sample Time: 0955

See sheets for more info

Bottle	Weight (g)	OK?	notes
8oz Teal 1	> 300	yes	
Teal 2	> 300		GS
Teal 3	> 300		PCDDs
Teal 4	193.6		TEPH
8oz amber	179.7		
Hg/MeHg	125.36		

1003 End Processing: 242-252 JH 12/7/16

1005 Begin Processing 251 (ms/ms)

Before opening photo: 104-0572  
 Encore TEPH Purgeables + VOCs filled, 0.0-0.5'  
 interval transferred to a stainless steel bowl

Before mixing: 104-0573  
 After mixing: 104-0574 Sample time: 1020

See sheets for more info

JH 12/7/16

57 Location 80 Lister Ave Newark NJ Date 12/7/14

Project / Client TURA NBSA Phase III

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Bottle	Weight (g)	OK?	notes
8oz Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	> 300		TEPH
8oz amber	141.8		
Hg/MeHg	131.46		
8oz Teal 1	> 300		
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	> 300		TEPH
8oz amber	110.8		
Hg/MeHg	122.65		
8oz Teal 1	> 300		
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	267.5		TEPH
8oz amber	183.8		
Hg/MeHg	133.88		
1048 Finish processing 251			
1051 Begin processing 293 power grab			
<del>Before opening photo 104-0574 (JEM)</del>			
<del>Encore TEPH Purgeables + VOCs filled 0.0-0.5' (JEM)</del>			
<del>interval transferred to stainless steel bowl</del>			

JH 12/7/16

Rite in the Rain

Location BU Lister Ave Newark, NJ Date 12/7/14

Project / Client Turra - NBSA Phase III

6/13

Before mixing photo 104-0575

After mixing photo 104-0576

Sample Time 1110

See data sheets for more info

~~EPA split collected here for~~ EPA

1055 Boat crew onsite

EPA split collected here for metals, mercury,

methyl mercury, PCBs, Pesticides, PAHs

dioxins/furans, ToC 407 Amber X2

Bottle	Weight(g)	OK	Note
Bot Teal 1	378.3	Y	
Teal 2	7300		GS
Teal 3	7300		PCDD
Teal 4	7300		TEPH
Bot Amber	313.2		
Hg/MHg	102.19	✓	

1108 Finish processing 293

1113 Begin processing 294 power

Before mixing photo 104-0577

After mixing photo 104-0578

Sample time 1125

See data sheets for more info

1115 Boat crew offsite, Zach Leisure (Arcadis)

Stays to assist.

JH 12/7/16

Location BU Lister Ave Newark, NJ Date 12/7/14

Project / Client Turra NBSA Phase III

7/13

Bottle	Weight(g)	OK	Note
Bot Teal 1	7300	Y	
Teal 2	7300		GS
Teal 3	7300		PCDD
Teal 4	7300		TEPH
Bot Amber	377.5		
Hg/MHg	104.99	✓	

1121 Finish processing 294

1127 Begin processing 295 power

Before mixing photo 104-0579

After mixing photo 104-0580

Sample time 1140

See data sheets for more info

EPA split collected here for metals, mercury,

methyl mercury, PCBs, Pesticides, PAHs

dioxins/furans, ToC 407 Amber X2

Bottle	Weight(g)	OK	Note
Bot Teal 1	7300	Y	
Teal 2	7300		GS
Teal 3	7300		PCDD
Teal 4	7300		TEPH
Bot Amber	239.1		
Hg/MHg	131.48	✓	

1138 Finish processing 295

JH 12/7/16 Ret in the Rain

8/13

1140 Begin processing 300 power  
 Before mixing photo 104-0581  
 After mixing photo 104-0582  
 Sample time 1155  
 See data sheets for more info  
 EPA split ~~to~~ <sup>(JEM)</sup> collected here for  
 metals, mercury, methylmercury,  
 PCBs, pesticides, PAHs, dioxins/furans  
 TOL - 407 Amber x 2

Bottle	Weight	OK?	Note
Bot Teal 1	7300	Y	
Teal 2	7300		GS
Teal 3	7300		PCDD
Teal 4	7300		TEQ
Bot Amber	268.4		
Hg/Mthy	112.68		

1156 Finish processing 300  
 1200 Break for lunch. ZL off site.

1315 Resume processing  
 1323 Begin processing 250  
 Before opening photo 104-0583  
 Evacuate TEPH purgeables and Vocs filled 0.0-0.5 interval  
 transfer to stainless steel bowl  
 Before mixing photo 104-0584  
 After mixing photo 104-0585

JH 12/7/16

9/13

See sheets for more info - sample time 1335

Bottle	Weight	OK?	Note
Bot Teal 1	371.7	Y	
Teal 2	7300		GS
Teal 3	7300		PCDD
Teal 4	206.7		TEQ
Bot Amber	159.5		
Hg/Mthy	95.73		

1205 <sup>JH 12/7/16</sup> Finish processing  
 1340 Start processing 240 (BD-16)

Before opening photo 104-0586  
 Evacuate TEPH purgeables and Vocs filled 0.0-0.5 interval transferred to stainless steel bowl  
 Before mixing photo 104-0587  
 After mixing photo 104-0588

Sample time 1400 see data sheets for more info

Bottle	Weight	OK?	Note
Bot Teal 1	361.8	Y	
Teal 2	7300		GS
Teal 3	7300		PCDD
Teal 4	7300		TEQ
Bot Amber	158.8		
Hg/Mthy	103.01		

Finish processing 240 (JEM)

JH 12/7/16

Return to Room

Location 80 Lister Ave. Newark NJ Date 12/7/16Project / Client Tierra-NBSA Phase III

10/13

Bottle	Weight(g)	OK	Note
807 Teal 1	374.0	Y	ovp
Teal 2	>300		GS
Teal 3	>300		PCDD
Teal 4	>300		TEPH
807 Amber	123.9		
H <sub>2</sub> O / Mils	103.8		

1413 Finish processing 240

1416 Begin processing 210

Before opening photo 104-0589

Encore TEPH purgables + vials filled 0.0-0.5'

Interval transferred to stainless steel bowl

Before mixing photo 104-0590

After mixing photo 104-0591

Sample Time 1430

See datasheet for more info

Bottle	Weight(g)	OK	Note
807 Teal 1	>300	Y	
Teal 2	>300		GS
Teal 3	>300		PCDD
Teal 4	>300		TEPH
807 Amber	251.1		
H <sub>2</sub> O / Mils	129.67		

1434 Finish processing 210

JH 12/7/16

Location 80 Lister Ave. Newark NJ Date 12/7/16Project / Client Tierra-NBSA Phase III

11/13

1437 Begin processing 203

Before opening photo 104-0592

Encore TEPH purgables + vials filled

0.0-0.5' interval transferred to stainless steel bowl

Before mixing photo 104-0593

After mixing photo 104-0594

Sample time 1450 see datasheets for more info

Bottle	Weight(g)	OK	Note
807 Teal 1	>300	Y	
Teal 2	>300		GS
Teal 3	>300		PCDD
Teal 4	>300		TEPH
807 Amber	290.3		
H <sub>2</sub> O / Mils	132.67		

1455 Finish processing 203

1500 Begin processing 202

Before opening photo 104-0595

Encore TEPH purgables + vials filled 0.0-0.5'

Interval transferred to stainless steel bowl

Before mixing photo 104-0596

After mixing photo 104-0597

Sample time 1515

See datasheets for more info

JH 12/7/16

Rite in the Rain

Project / Client Tierra - NBSA Phase III

12/13

Bottle	Weight (g)	OK?	Note
Bot Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	> 300		TEPH
Bot Amber	156.3		
Hg / Mkg	109.82		

1514 Finish processing 202

1518 Begin processing 196

Before opening photo 104-0598

Evacuate TEPT purgeables, + vacs filled, 0.0-0.5'  
interval transferred to stainless steel bowl

Before mixing photo 104-0599

After mixing photo 104-0600

Sample time 1530

See date sheet for more info

Bottle	Weight	OK?	Note
Bot Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	247.9		TEPH
Bot Amber	320.7		
Hg / Mkg	142.03		

1532 Finish processing 196

JH 12/7/16

Project / Client Tierra - NBSA Phase III

13/13

1535 Begin processing 197

Before opening photo 104-0601

Evacuate TEPT purgeables + vacs filled, 0.0-0.5'  
interval transferred to stainless steel bowl

Before mixing photo 104-0602

After mixing photo 104-0603

Sample time 1545

See date sheet for more info

Bottle	Weight (g)	OK?	Note
Bot Teal 1	> 300	Y	
Teal 2	> 300		GS
Teal 3	> 300		PCDD
Teal 4	> 300		TEPH
Bot Amber	354.9		
Hg / Mkg	143.88		

1549 Finish processing 197

1545 EPA offsite

1550 PB offsite

1600 NC offsite, JH &amp; JM pack coolers.

1640 Eurofins courier onsite, picks up coolers.

1655 Eurofins courier offsite.

1710 JM offsite.

1725 JH offsite with Vista coolers to FedEx.

JH 12/7/16

Ritter in the Rain

Location 80 Lister Ave Newark, NJ Date 12/8/16Project / Client Tierra - NBSA Phase III

1/6

Personnel: Julianne Haggerty (author)  
 Zach Leisure } Arcadis  
 Nick Comrie }

SOW: Sediment processing

Weather: sunny, 30s-40s.

0735 ZL onsite, calibrates air monitors

0740 JH onsite

0745 NC onsite, H+S meeting.

0803 Begin processing 204

Before opening photo (104-0604). Encores TELH  
 purgeables + vials filled. 0.0-0.5' interval transferred  
 to stainless steel bowl. Before mixing photo (104-0605)  
 and after (104-0600). Sample time 820. See  
 sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300	2H Yes	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	7300		TEPH
8oz Amber	111.6		
Hg/Mth	150.3	2H X	

820: End processing 204821: Begin processing 192

JK 12/8/16

Location 80 Lister Ave Newark NJ Date 12/8/16Project / Client Tierra - NBSA Phase III

2/6

Before opening photo (104-0607). Encores TELH purgeables  
 and vials filled. 0.0-0.5' interval transferred to  
 stainless steel bowl. Before mixing photo (104-0608)  
 and after (104-0604). Sample time 830. See  
 sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	7388.7	2H Yes	
Teal 2	7300		GS
Teal 3	7300		PCDDs
Teal 4	7300		TEPH
8oz Amber	728.4		
Hg/Mth	135.1	2H X	

832: End processing 192833: Begin processing 193

Before opening photo (104-0610). Encores and  
 TELH purgeables + vials filled. 0.0-0.5' interval  
 transferred to stainless steel bowl. Before  
 mixing photo (104-0611) and after (104-0612).  
 Sample time 845. See sheet for more  
 info.

JK 12/8/16

Rite in the Rain

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Bottle	weight (g)	ok?	notes
8oz Teal 1	7300 <sup>2H</sup>	Yes	
Teal 2	7300		GS
Teal 3	7300		PCODS
Teal 4	7300		TEPH
8oz amber	2399		
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	146.2 <sup>2H</sup>	X	

845: End processing 193

846: Begin processing 188

Before opening photo (104-0613). Encores TEPH purged and vials filled. 0.0-0.5' interval transferred to stainless steel bowl. Before mixing photo (104-0614) and after (104-0615). Sample time 0900 - See sheet for more info.

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300 <sup>2H</sup>	Yes	
Teal 2	7300		GS
Teal 3	7300		PCODS
Teal 4	2260		TEPH
8oz amber	176.4		
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	134.5 <sup>2H</sup>	X	

Dup taken @ 188, N0635EDUP-17

JH 12/8/16

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Bottle	weight (g)	ok?	notes
8oz Teal 1	7300 <sup>2H</sup>	Yes	
Teal 2	7300		GS
Teal 3	7300		PCODS
Teal 4	7300		TEPH
8oz amber	234.1		
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	144.1 <sup>2H</sup>	X	

912 Begin processing 292

Before opening photo (104-0616). Encores TEPH purged and vials filled. Sample removed from bucket and placed in stainless steel bowl. Sample homogenized. After mixing photo (104-0617)

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300	Yes	
Teal 2	7300		GS
Teal 3	7300		PCODS
Teal 4	7300		TEPH
8oz amber	353.2		
H <sub>2</sub> /M <sub>2</sub> H <sub>2</sub>	115.3	X	

926: Begin processing 291

JH 12/8/16

Rite in the Rain.

Location 80 Lister Ave Newark NJ Date 12/8/16

Project / Client Terra-NBSA Phase III

5/6

Sample removed from bucket and placed in stainless steel bowl. Before mixing photo (104-0618) and after (104-0619). Bottleware f. 1/14

Bottle	weight (g)	ok?	notes
8oz Teal 1	7300 <sup>2H</sup>	Yes	
Teal 2	~300		GS
Teal 3	~300		PCODs
Teal 4	~300		TEPM
8oz amber	291.9		
H <sub>2</sub> /M <sub>2</sub>	114.5 <sup>2H</sup>	*	

935: End processing 297 291 JH 12/8/16

945: remove waste sediment from core liners into separate drum.

1010 Rinse bowls, spoons, etc. with tap water and alconox to remove gross sediment. Air dry.

1100 Break down processing room equipment staging areas.

1130 Make ice bags.

1140 Pine carrier onsite, picks up Break for lunch.

JH 12/8/16

Location 80 Lister Ave Newark NJ Date 12/8/16

Project / Client Terra-NBSA Phase III

6/6

1230 Make ice bags. Decon chemical inventory:

2 L Nitric Acid (N/10) exp. 10/2018

11 L Hexanes (no expiration)

4 L Methanol (no expiration)

15 L DI water

1300 Pack coolers.

1320 Coolers packed, label drums.

1340 Eurofins carrier onsite, picks up coolers and empty coolers.

1350 Eurofins carrier offsite. Housekeeping.

1430 NC+ZL offsite. ZL takes Vista cooler to FedEx.

1435 JH offsite. Pine to pick up papers and air monitors tomorrow. B+C will handle.

JH 12/8/16