

New Bedford Harbor Long-Term Monitoring Survey VI: Final Summary Report

New Bedford Harbor Superfund Site Long-Term Monitoring VI New Bedford, Massachusetts

Contract Number: W912WJ-12-D-0004

Delivery Order Number: 19

A photograph showing a boat on the water. In the background, there is a large crane on a pier. The sky is blue with white clouds. The water is dark green.

Prepared for
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Prepared by
Battelle
141 Longwater Drive, Suite 202
Norwell, Massachusetts 02061

September 2015



US ARMY CORPS
OF ENGINEERS
NEW ENGLAND DISTRICT

Battelle
The Business of Innovation

This page left intentionally blank.

FINAL

**New Bedford Harbor Long-Term Monitoring Survey VI:
Summary Report**

**New Bedford Harbor Superfund Site
New Bedford, Massachusetts**

**Contract Number: W912WJ-12-D-0004
Delivery Order Number: 19**

Prepared for

**U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742-2751**

Prepared by

**Battelle
141 Longwater Drive, Suite 202
Norwell, Massachusetts 02061**

September 2015

This page left intentionally blank.

Table of Contents

Acronyms and Abbreviations	iii
Executive Summary	v
Chapter 1. Introduction.....	1
1.1 Site Description	1
1.2 Project Objectives.....	2
Chapter 2. Methods.....	3
2.1 LTM VI Sampling Approach.....	3
2.1.1 Sediment and Water Quality Sampling	3
2.1.2 Field Quality Control.....	4
2.2 Laboratory Testing.....	6
2.2.1 Physical and Chemical Analysis	6
2.2.1.1 Grain Size.....	6
2.2.1.2 Total Organic Carbon.....	6
2.2.1.3 NOAA 18 PCB Congeners by GC/ECD	6
2.2.2 Biological Analysis	7
2.2.3 Laboratory Quality Control	7
2.2.4 Data Validation	7
Chapter 3. Results	8
3.1 Field Monitoring Summary.....	8
3.1.1 Water Quality	8
3.2 Laboratory Testing.....	8
3.2.1 Grain Size Distribution of the Sediment Surface.....	8
3.2.2 Total Organic Carbon of the Sediment Surface	9
3.2.3 PCB Characterization of the Sediment Surface.....	9
3.2.4 Benthic Infauna of the Sediment Surface	17
3.2.4.1 Upper Harbor (Area 1)	17
3.2.4.2 Lower Harbor (Area 2)	18
3.2.4.3 Outer Harbor (Area 3).....	19
3.3 Quality Control.....	20
3.3.1 Field Replicates.....	20
3.3.2 Laboratory Quality Control Samples	21
Chapter 4. Discussion	22
Chapter 5. References	23

List of Tables

Table 3-1. Total Organic Carbon, Grain Size, and PCB Summary Results for New Bedford Harbor LTM VI Survey.....	11
Table 3-2. Total PCB Values for All Stations with Values below the ER-L and ER-M Denoted.....	12
Table 3-3. Species Richness and Total Density in the Three Areas of New Bedford Harbor	17
Table 3-4. Dominant Species in NBH Area 1 (Upper Harbor)	18
Table 3-5. Dominant Species in NBH Area 2 (Lower Harbor)	19

Table 3-6. Dominant Species in NBH Area 3 (Outer Harbor).....	20
Table 3-7. Total PCB and TOC in Field Replicates Results (Surface top 2 cm)	20
Table 4-1. Average Total PCB Concentrations in Surface (top 2 cm) Sediment at New Bedford Harbor, LTM 1993 to 2014	22

List of Figures

Figure 1-1. Location of the Site in Southeastern Massachusetts	2
Figure 2-1. Map of the New Bedford Harbor LTM IV Sampling Area	5
Figure 3-1. Grain Size Distribution of Chemistry Samples Collected during LTM VI in New Bedford Harbor	9
Figure 3-2. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples at New Bedford Harbor	13
Figure 3-3. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples in the Upper Harbor	14
Figure 3-4. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples collected in the Lower Harbor	15
Figure 3-5. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples in the Outer Harbor	16

Appendices

Appendix A Final Field Survey Report	
Appendix B Surface Sediment Grab Photographs	
Appendix C Grain Size Laboratory Data Report	
Appendix D Total Organic Carbon Laboratory Data Report	
Appendix E Total PCB Analytical Laboratory Data	
Appendix F Benthic Infauna Laboratory Data Report	
Appendix G Data Validation Reports	

Acronyms and Abbreviations

AED	Atlantic Ecology Division
cm	centimeter
dGPS	differential global positioning system
DO	dissolved oxygen
DUP	matrix duplicate
EMAP	Environmental Monitoring and Assessment Program
EPA	United States Environmental Protection Agency
ER-L	effects range-low
ER-M	effects range-medium
FSP	field sampling plan
ft	feet
GC/ECD	gas chromatography/electron capture detection
GPS	global positioning system
GTX	GeoTesting Express
ID	identification
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LTM	long-term monitoring
m	meter
max	maximum
mm	millimeter
mg	milligram
mg/L	milligram per liter
min	minimum
MPC	measurement performance criteria
MS	matrix spike
MSD	matrix spike duplicate
ng/g	nanograms per gram (equivalent to micrograms per kilogram [$\mu\text{g}/\text{kg}$])
NOAA	National Oceanic and Atmospheric Administration
PCB	polychlorinated biphenyl
ppm	parts per million (equivalent to milligrams per kilogram [mg/kg])
QAPP	Quality Assurance Project Plan
QA	quality assurance
QC	quality control
RIS	recovery internal standard
RL	Reporting Limit
RPD	relative percent difference
R/V	Research Vessel
SIS	surrogate internal standard
SOP	standard operating procedure

SRM	standard reference material
TOC	total organic carbon
µg/g	micrograms per gram
µm	micrometer
USACE NAE	U.S. Army Corps of Engineers, New England District

Executive Summary

The United States Environmental Protection Agency (EPA) Region 1 and United States Army Corps of Engineers New England District (USACE NAE) have been collecting long-term monitoring (LTM) data at the New Bedford Harbor Superfund Site (site) since 1993 to quantify the long-term environmental effects and effectiveness of remediation efforts in the harbor. This report presents data collected for the sixth round of the LTM (LTM VI) performed at the site in 2014. Sediment grabs were collected for chemical and physical testing as well as benthic community analysis to assess sediment conditions. Surficial sediment (top 2 centimeter [cm]) was analyzed for polychlorinated biphenyls (PCBs), total organic carbon (TOC) content and grain size distribution. Sediments from the biologically-active zone (top 10 cm) were analyzed for benthic infauna and grain size. These data will be evaluated by EPA in the context of the broader LTM program (1993 to 2014) to assess spatial and temporal trends in the data and the effects and/or effectiveness of the remedial activities.

The LTM VI sampling was conducted between September 20, 2014 and September 30, 2014. Samples were collected from 79 stations in three main areas in New Bedford Harbor designated as the Upper Harbor (Area 1), Lower Harbor (Area 2), and Outer Harbor (Area 3). Overall, the results were comparable with past LTM years. Total PCB concentrations in sediment were highest in the Upper Harbor and decreased from north to south. The average total PCB concentration was one order of magnitude higher in the Upper Harbor (83.1 parts per million [ppm]) compared to the Lower Harbor (2.82 ppm) and two orders of magnitude higher in the Upper Harbor compared to the Outer Harbor (0.166 ppm). Additionally, total PCB concentrations were more variable in the Upper Harbor (from 0.502 to 934 ppm) compared to the Lower Harbor (from 0.226 to 8.7 ppm) and Outer Harbor (from 0.003 to 0.766 ppm) areas. The Lower Harbor has shown a notable consistently decreasing trend in average PCB concentrations, particularly between the 2009 event and the 2014 event (from 5.1 ppm to 2.8 ppm) and for the Outer Harbor, a slighter decreasing overall trend since the program started in 1993. For benthic infauna, the dominant species in the Upper Harbor were consistent with previous LTM years (*Gemma gemma*, *Mulinia lateralis*, *Streblospio benedicti*, and *Tharyx acutus*) and the diversity continued to increase from north to south with highest diversity observed in the Outer Harbor. The benthic infauna data showed higher species count in all three areas of the harbor than previous years, which has been the trend over the last few LTM surveys (Nelson and Bergen, 2012).

This page intentionally left blank.

Chapter 1. Introduction

This report presents the results of sampling activities performed at the New Bedford Harbor Superfund Site in 2014 in support of the long-term monitoring (LTM) program. Sediment grabs were collected to characterize physical, chemical, and biological conditions in the surface sediment. Sediment data were provided to the United States Army Corps of Engineers New England District (USACE NAE), and the United States Environmental Protection Agency Region 1 (EPA), to assess effects and effectiveness of the New Bedford Harbor Superfund remediation efforts.

The remedial action at the site addresses the removal of approximately 900,000 cubic yards of PCB-contaminated sediment. In order to assess the effectiveness of the New Bedford Harbor Superfund remediation efforts, a long-term environmental monitoring plan has been developed by the EPA's Research Laboratory, Atlantic Ecology Division (AED) in Narragansett, Rhode Island. This plan incorporates an intensive sampling and analysis effort for the purpose of quantifying the long-term environmental effects of reduced PCB levels in the sediments and water column of the New Bedford Harbor estuary as a result of remediation efforts. The five previous sampling rounds for this program include: the "baseline" sampling event conducted in October 1993 (LTM I), a second event (LTM II) conducted immediately after removal of the "hot spot" sediments in October of 1995, a third event conducted in 1999 (LTM III), the fourth round of sampling and analysis conducted in 2004 (LTM IV), a fifth round conducted in 2009 (LTM V) and the sixth round in 2014 (LTM VI). This Summary Report describes the results of the sampling activities conducted under LTM VI sampling and analysis conducted in 2014. This work was performed by Battelle for the USACE NAE. CR Environmental participated in the collection activities as a subcontractor to Battelle.

1.1 SITE DESCRIPTION

The New Bedford Harbor Superfund Site (site), located in Bristol County, Massachusetts, extends from the shallow northern reaches of the Acushnet River estuary south through the commercial harbors of New Bedford and Fairhaven and into 17,000 adjacent acres of Buzzards Bay (Figure 1-1).

Industrial and urban development surrounding the harbor has resulted in sediments becoming contaminated with high concentrations of many pollutants, notably polychlorinated biphenyls (PCBs) and heavy metals. PCB concentration gradients within harbor sediments generally decrease from north to south. The source of the PCB contamination has been attributed to two electrical capacitor manufacturing facilities that operated between the 1940s and 1970s. One facility, Aerovox Corporation, is located near the northern boundary of the site, and the other, Cornell-Dubilier Electronics, Inc., is located just south of the New Bedford Harbor hurricane barrier. The two facilities are known to have discharged PCB-laden wastes either directly into the harbor or indirectly via discharges to the City's sewerage system. EPA added New Bedford Harbor to the National Priorities List in 1983 as a designated Superfund Site. USACE NAE is responsible for carrying out the design and implementation of remedial measures at the site through an Interagency Agreement with EPA. The remedy for the site includes the removal of approximately 900,000 cubic yards of PCB-contaminated sediment, followed by offsite and onsite disposal of dredged and excavated sediments.

The site has been divided into three geographic areas: the Upper, Lower and Outer harbors, consistent with geographic features, basin morphology and gradients of contamination (Figure 1-1). The Upper Harbor comprises approximately 187 acres, with current sediment PCB levels ranging from below detection to approximately over 1,000 parts per million (ppm). The boundary between the Upper and Lower Harbor is the Coggeshall Street Bridge; at this point the harbor is constricted to a width of approximately 100 feet. The Lower Harbor comprises approximately 750 acres, with current sediment PCB levels ranging from below detection to over 100 ppm. The boundary between the Lower and Outer Harbor is the 150-foot wide opening in the New Bedford hurricane barrier.

1.2 PROJECT OBJECTIVES

The objectives of this study were to collect and analyze the sixth round of samples for the LTM project (LTM VI). The data will be evaluated by EPA in context of the broader LTM program (1993-2014) to assess spatial and temporal chemical and biological trends in sediment and biota and the effects and/or effectiveness of the remedial activities.

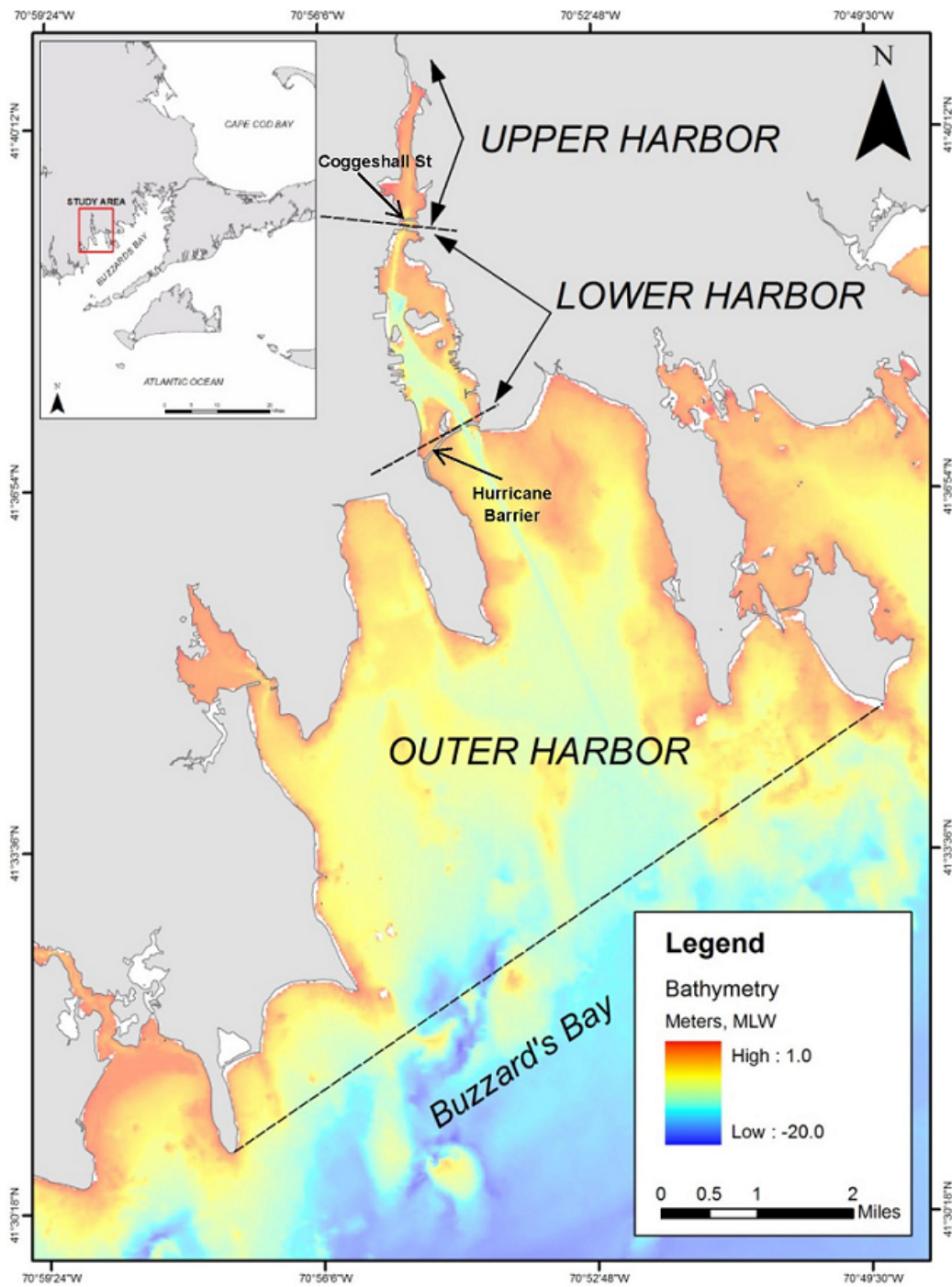


Figure 1-1. Location of the Site in Southeastern Massachusetts

Chapter 2. Methods

This section describes the methods used to collect and analyze the LTM VI sediment samples for physical, chemical and biological analysis. These methods are described in detail in the approved project Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP) (Battelle, 2014a and 2014b).

2.1 LTM VI SAMPLING APPROACH

The sampling approach for the LTM VI study included collection, processing and analysis of sediment grabs to determine the physical, chemical and benthic infauna composition of the sediment at each monitoring location. Sediment samples were collected at each of the 79 stations for physical and chemical (grain size, total organic carbon [TOC] content, and PCBs) analyses, as well as biological analysis (i.e., benthic community analysis). In situ water quality measurements (temperature, salinity, turbidity, and dissolved oxygen [DO]) were also collected at each station.

2.1.1 SEDIMENT AND WATER QUALITY SAMPLING

The sampling locations were provided by USACE NAE, and were selected using a systematic, probabilistic sampling design developed by EPA/AED in Narragansett, Rhode Island. This unbiased design allows the three segments of the harbor to be compared spatially and temporally to quantify changes resulting from dredging the contaminated sediments. Sampling was conducted at 79 separate stations located in the three distinct geographical areas of New Bedford Harbor:

- Upper Harbor (Area 1) – Wood Street to the Coggeshall Street Bridge (27 stations)
- Lower Harbor (Area 2)– Coggeshall Street Bridge to Hurricane Barrier (29 stations)
- Outer Harbor (Area 3)– Hurricane Barrier to edge of Fishing Closure Area III (23 stations)

Within each of the three areas a hexagonal sampling grid was established by EPA AED. The sampling grid and station locations are shown in Figure 2-1. Because the areas in each of the three areas become progressively larger, the hexagonal sampling grid is proportionally adjusted to obtain approximately the same number of stations in each area. The hexagons in the Upper Harbor have a radius (center to side mid-point) of 88 meters; in the Lower Harbor the radius of each hexagon is 175 meters, and the hexagons in Outer Harbor have a radius of 793 meters.

The sampling effort followed the methodology detailed in EPA's Environmental Monitoring and Assessment Program (EMAP) (Versar, 1991). Sample collection procedures and grab acceptability were in accordance with Section 6 (Sediments Collection) of the Coastal 2000 Northeast Component: Field Operations Manual (Appendix A). All samples were collected from Battelle's Research Vessel (R/V) *Gale Force*, a 20-foot pontoon boat or from CR Environmental's R/V *Cynthia Lee*, a 42-foot provincial lobster boat.

Navigation was performed using hand-held differential global positioning system (dGPS) units. Samples were taken as close to the center of the hexagon station as possible. In general, these targets were achieved. However, where obstacles, underwater debris, or unacceptable sampling material was present, the sampling was moved to the nearest acceptable location. All sample locations were within the station hexagon.

At each station, water quality measurements of salinity, temperature, turbidity, and DO were taken using a YSI EXO2 multi-parameter water quality sonde. The sonde was manually lowered to a depth of approximately 0.5 to 1 meters from the bottom, where the depth and in situ water quality measurements were recorded by hand on the station log sheets. Sediment samples at each station were collected for the analysis of grain, size, TOC, and PCB congeners. Three benthic biology samples were collected at each station: two for analysis and one for archival purposes.

CHAPTER 2. METHODS

Grab samples for chemistry analysis were collected at all of the stations using a 0.04-m² Van Veen grab sampler. Each grab was inspected for acceptability (i.e., penetration \geq 7 cm, and level, intact sediment). If the grab was deemed unacceptable it was discarded over the opposite side of the vessel to avoid contaminating subsequent samples and the equipment was washed with site water. Once the grab was deemed acceptable, it was visually characterized for sediment type, color, and organisms present on the surface. Appendix B includes photographs of representative grabs collected during the LTM VI study. The top 2 cm were then transferred to a pre-cleaned stainless steel 2-gallon mixing bowl using a pre-cleaned stainless steel spoon avoiding sediment in contact with the sides of the grab. In some cases, multiple grabs were taken to ensure sufficient material was collected for all physical and chemical analyses. The sample was thoroughly homogenized and then subdivided into the sample analysis containers.

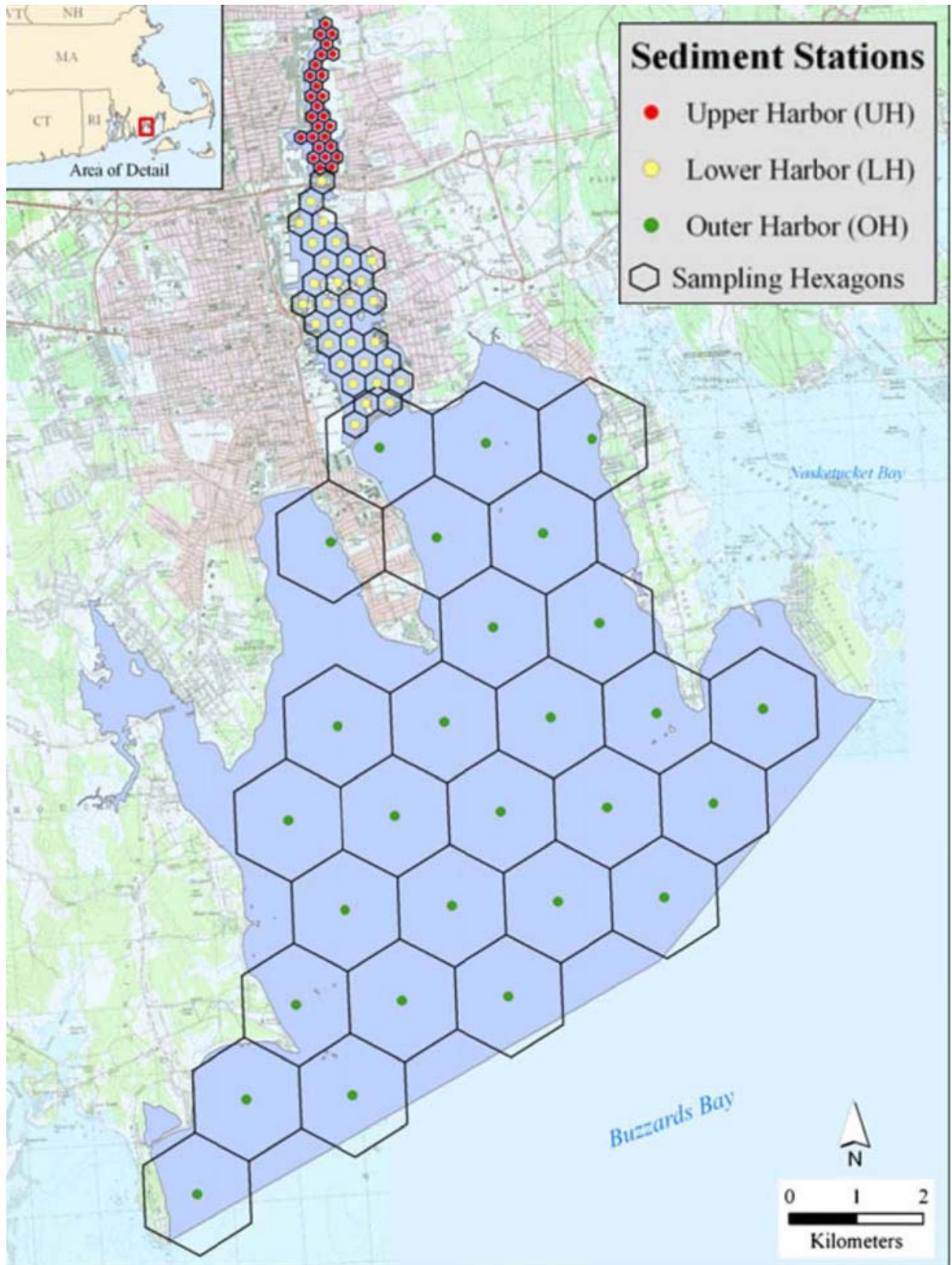
The grab samples for benthic community and associated grain size analysis were collected using a 0.04-m² Van Veen grab sampler. Triplicate grabs of the top 10 cm were taken at each of the stations for benthic infauna analysis. Once the grab was deemed acceptable, a grain size sample was collected (from the infauna grab) by inserting an open-ended syringe through the entire depth of the core and drawing the sediment out, thereby capturing a small sediment core representing the entire thickness of the grab. The remaining material was transferred to a sieving station and passed through a 0.5 millimeter (mm) sieve. All of material remaining in the sieve was transferred to a clean labeled plastic jar, preserved with 10% formaldehyde, borax, and site water.

For both the sediment and infauna grab samples, the vessel was moved slightly while on station to avoid resampling the same location. After each station was completed, the grab samplers were decontaminated with soap and water and rinsed with site water. If an oily sheen was present, the grab samplers were wiped with an acetone wipe.

2.1.2 FIELD QUALITY CONTROL

The dGPS units (Garmin GPS Map 76CSx) were checked at the beginning and end of each sampling day against an established benchmark at the Sawyer Street facility. The calibration check was recorded on the differential GPS calibration field log, and maintained in the project files (Appendix A). The instrument measures displacement from the benchmark; displacements ranged from 0 to 3 meters with a majority of the checks being less than 1 meter.

Field-based quality control (QC) samples were collected during the sediment sampling event, and included field replicates (i.e., duplicates). Field replicates were collected at the same time, from the same location, using the same techniques. Field replicates were handled, containerized, stored and transported in the same manner as field samples. For sediment grabs, the field replicate represented a second (different) grab collected from co-located locations (i.e., the same location as the parent grab sample). Field replicates (duplicates) were collected at a frequency of approximately one per 20 samples for chemistry samples.



(Hexagons with center dot represent station locations [Nelson & Bergen, 2012].)

Figure 2-1. Map of the New Bedford Harbor LTM IV Sampling Area

2.2 LABORATORY TESTING

Laboratory testing was performed to characterize sediment grain size, TOC and PCB concentrations in the sediment surface (top 2 cm) and benthic infauna and associated grain size in the biological active zone (surface, up to 10 cm). Laboratory data generated by the participating laboratories were submitted to the project database.

2.2.1 PHYSICAL AND CHEMICAL ANALYSIS

2.2.1.1 GRAIN SIZE

Grain size analysis was performed by GeoTesting Express (GTX; Acton, Massachusetts) following ASTM D422-63. Sediment grain size was determined with phi-classes for sands using wet sieve and silt and clay fractions using a hydrometer. Wet sieving yielded the following phi-classes: gravel (>2.00 mm), very coarse sand (1.00-2.00 mm), coarse sand (0.50-1.00 mm), medium sand (0.25-0.50 mm), fine sand (0.125-0.25 mm) and very fine sand (0.063-0.125 mm). Hydrometer analysis was performed on the portion passing through the #200 sieve to determine silt (1.95 to 62.5 micrometer [μm]) and clay (<1.95 μm) content. Results were reported as percent retained within each fraction.

2.2.1.2 TOTAL ORGANIC CARBON

TOC analysis was performed by Alpha Analytical (Mansfield, Massachusetts) following EPA 9060, and each sample was analyzed in duplicate. An aliquot of sample was homogenized, pre-treated with phosphoric acid and heated to 103-105°C to convert the inorganic carbon prior to analysis. Organic carbon was measured using combustion and a carbonaceous analyzer. The sample, of approximately 2 to 5 mg, was oxidized in a pure oxygen environment, introduced into a furnace by a 60-slot Autosampler, and then combusted. The carrier gas (Ox) was combined with the carbon content of the combusted sample to form CO₂. Elements, such as halogens and sulfur, were removed by scrubbing reagents in the combustion zone. A thermal conductivity detector then measured the CO₂ content. The amount of CO₂ derived from a sample is directly proportional to the concentration of organic carbonaceous material in the sample. Results were reported in units of percent dry weight.

2.2.1.3 NOAA 18 PCB CONGENERS BY GC/ECD

PCB analysis for the 18 National Oceanic and Atmospheric Administration (NOAA) congeners analyzed for the National Status and Trends program was performed by Battelle (Norwell, Massachusetts). Prior to extraction, samples were air dried for approximately one to three days (depending on moisture content) and a percent moisture determination was performed on the air-dried sediment to verify that percent solids in the samples were >50% and to report data on a dry weight basis.

For extraction and analysis, approximately 1 to 10 grams of the well mixed, air-dried sample was spiked with surrogate internal standards (SIS) and extracted three times with methylene chloride. The combined sample extract was dried over anhydrous sodium sulfate, concentrated and cleaned using florisil to isolate the PCBs and activated copper to remove sulfur. The final extracts were concentrated, fortified with recovery internal standards (RIS), and submitted for analysis.

PCB analysis was performed by gas chromatography/electron capture detection (GC/ECD) using dual column confirmation. An initial calibration consisting of target analytes was analyzed prior to sample analysis to demonstrate the linear range. Calibration verification was performed before and after every 10 samples or at the beginning and end of every 24-hour period in which samples were analyzed, whichever was shorter. Concentrations of target congeners were calculated versus RIS using the average response factors generated from the initial calibration. Positive congener results were confirmed by a secondary column confirmation analysis with the higher of the two results reported, unless analyst discretion required otherwise (e.g., the result without an interference signal was reported). Congener results that were greater than 40% different between the first and second column analysis were 'p' qualified.

Sample results were reported by the laboratory in nanograms per gram (ng/g) dry weight to three significant figures. All data were reported as surrogate corrected to correct for extraction efficiency. Total PCB was calculated as the sum of the detected NOAA 18 congeners (a value of ½ the reporting limit [RL] was used for non-detects). Total PCB results were converted to ppm basis (ppm = ng/g result divided by 1,000).

2.2.2 BIOLOGICAL ANALYSIS

Benthic biology sorting, enumeration, and identification were performed by Barry Vittor & Associates in Mobile, Alabama. Biological laboratory procedures were carried out according to protocols established in EMAP Laboratory Methods Manual – Estuaries Volume 1 – *Biological and Physical Analyses* (EPA, 1995) Section 5. Two of three replicate grab samples collected at each station were analyzed taxonomically. The third sample was archived.

2.2.3 LABORATORY QUALITY CONTROL

A routine set of laboratory-based QC samples was prepared with the LTM VI sediment samples to monitor accuracy and precision. For PCB congener analysis, QC samples included a procedural blank, laboratory control sample (LCS), LCS duplicate (LCSD), a matrix spike (MS), a matrix spike duplicate (MSD), and a standard reference material (SRM) with each batch of 20 or fewer samples. For TOC, each sample was analyzed in duplicate and each set of 20 or fewer samples included a SRM. For sediment grain size, one laboratory duplicate was analyzed with each set of 20 or fewer samples. For benthic infauna, QC measures followed the EMAP protocols and included re-sorting and re-identification of randomly selected samples, and validation of taxonomic/enumeration data entries.

QC sample results were evaluated against the project measurement performance criteria (MPC). Data that did not meet the MPC were evaluated to determine the impact(s) on data quality, and corrective action was taken as appropriate.

2.2.4 DATA VALIDATION

Data validation was performed by Battelle. PCB congener results for the LTM VI sediment samples received data validation at the Tier 1 Stage 2A level and sediment grain size and TOC data received Tier I Stage 1 level using the following guidelines, as applicable to each method:

- EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013
- EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- EPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

Benthic infauna data did not receive external data validation.

Chapter 3. Results

This section summarizes results from the sampling and physical, chemical and biological testing of the LTM VI sediment samples.

3.1 FIELD MONITORING SUMMARY

Sediment samples were collected at each of the 79 stations for physical (grain size and TOC) and chemical (PCBs) analyses as well as for benthic community analysis. In situ field measurements (temperature, salinity, turbidity, and DO) were also collected at each station (see Appendix A). The field survey report which summarizes the field sampling activities and provides a copy of all field logs is provided in Appendix A.

3.1.1 WATER QUALITY

The *in situ* water quality measurements were taken prior to the collection of each sediment sample. The parameters collected included salinity, temperature, turbidity, and DO, and are summarized in Table 3 of Appendix A (Field Report). The sampling water depth ranged from the shallow stations (0.1 to 12.8 ft) in the Upper Harbor, to moderate depths in the Lower and Outer Harbors (0.3 to 37.9 ft). As expected, salinity and DO followed trends along a north/south gradient. In the upper reaches of the harbor, where the Acushnet river enters the system, salinities were lower than in other areas (mean = 30.2 parts per thousand [‰]). Upper Harbor salinities ranged from 29.3 to 30.7‰. The range of salinities in the Lower Harbor was 30.5 to 33.3‰ with a mean of 32.8‰. Outer Harbor salinity measurements were uniform, with a mean of 33.5‰. In the Upper Harbor, DO values ranged from 5.0 to 7.54 milligrams per liter (mg/L), with a mean of 5.9 mg/L. DO ranged from 5.59 to 6.88 mg/L in the Lower Harbor, with a mean of 6.18 mg/L. In the Outer Harbor, DO ranged from 6.16 to 8.43 mg/L with a mean of 7.08 mg/L. Temperature was consistent throughout the study area with a mean of 19.56 °C.

3.2 LABORATORY TESTING

Statistical summaries of the LTM VI sediment data are provided in Table 3-1. The statistical summaries include the following information for each test parameter by geographic region of the harbor: number of samples, detection frequency, minimum concentration, central tendency (arithmetic average and median), standard deviation, and location of the maximum detected value. Complete test results, along with results from the analysis of field- and laboratory-based QC samples, are provided in Appendices C, D, and E.

3.2.1 GRAIN SIZE DISTRIBUTION OF THE SEDIMENT SURFACE

Sediment grain size distribution was measured in four samples from each station. One sample was associated with the grab samples analyzed for chemistry, while the remaining three were associated with the grab samples collected for benthic infauna analyses. The grain size results reported in Table 3-1 are from the samples associated with the chemistry grab (top 2 cm). Complete grain size results for chemistry and benthic grabs are provided in Appendix C. Grain size data for the chemistry grab sample are presented here.

Surface sediments collected from the three regions of New Bedford Harbor had variable grain size distributions, ranging from sand to silt. Surface sediments from the Upper Harbor were generally more fine-grained (Figure 3-1), with mean values of 61.3% fines (silt + clay), 32.7% sand, and 6.67% gravel (Table 3-1). The Lower Harbor was more evenly distributed with mean values of 50.7% fines, 42% sand and 7.2% gravel. The Outer Harbor was characterized more as a sandy environment with the mean values of 50.0% fines, 43.1% sand, and 6.96% gravel.

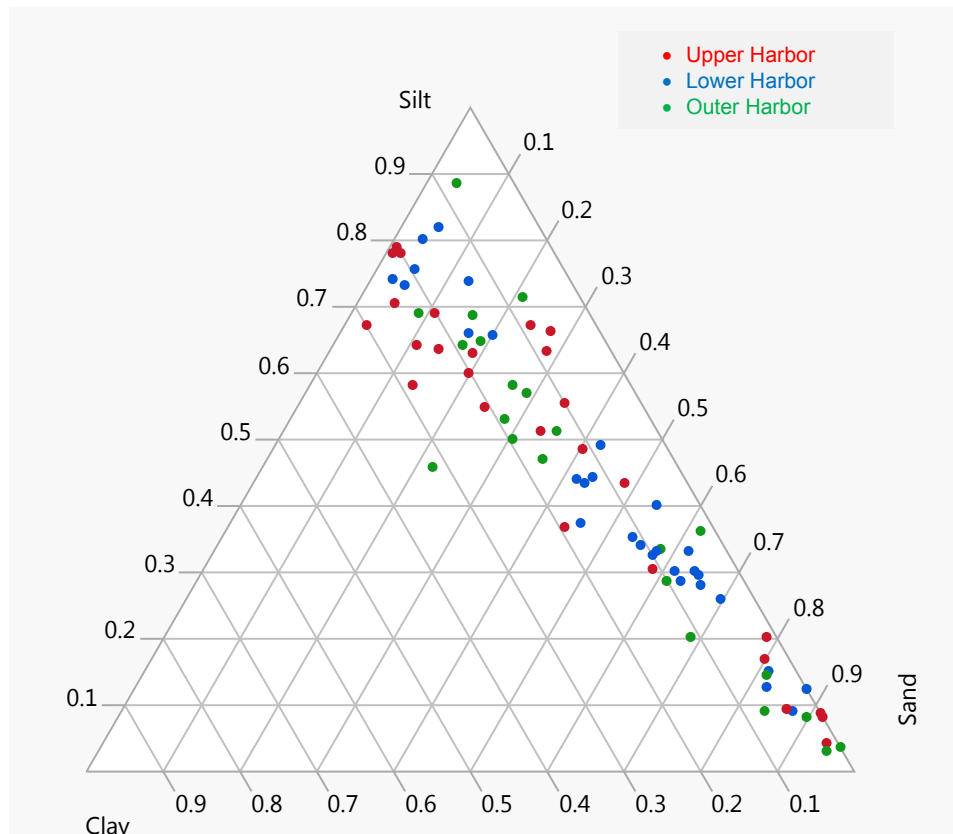


Figure 3-1. Grain Size Distribution of Chemistry Samples Collected during LTM VI in New Bedford Harbor (top 2 cm).

3.2.2 TOTAL ORGANIC CARBON OF THE SEDIMENT SURFACE

TOC levels ranged from 0.07% to 8.4% in surface (top 2 cm) sediment at New Bedford Harbor (Table 3-1). TOC levels were higher on average in the Upper Harbor (mean = 4.76%), and decreased in a north-to-south direction (means of 2.69% and 1.41% in the Lower and Outer Harbors, respectively) (Table 3-1). The highest TOC level was measured at Station 108 located in the northern region of the Upper Harbor and the lowest level was measured at Station 318, located in the Outer Harbor.

3.2.3 PCB CHARACTERIZATION OF THE SEDIMENT SURFACE

Total PCB concentrations ranged from 0.003 to 934 ppm in surface sediment (top 2 cm) throughout New Bedford Harbor (Table 3-1). Table 3-2 presents the total PCB values for all stations sampled during LTM VI. Consistent with past LTM studies (Nelson and Bergen, 2012), the highest concentrations were measured in the Upper Harbor, and concentrations decreased in a north-to-south direction (Lower to Outer Harbor). The average total PCB concentration in the Upper Harbor (arithmetic average of total PCB measured in all 27 Upper Harbor stations) was 83.1 ppm, which is one order of magnitude higher than the Lower Harbor average concentration (2.82 ppm) and two orders of magnitude higher than the Outer Harbor average concentration (0.166 ppm) (Table 3-1). The highest concentration of total PCB was measured at Station 115, located in the northeast region of the Upper Harbor and directly across from the former Aerovox facility (Figure 3-3).

Within each region of the harbor, the widest range of total PCB concentrations was observed in the Upper Harbor (0.502 to 934 ppm; Table 3-1, Figure 3-3). The Lower Harbor had a more narrow range of total

CHAPTER 3. RESULTS

PCBs concentrations (0.226 to 8.70 ppm; Table 3-1, Figure 3-4) and the Outer Harbor had the smallest range (0.003 to 0.766 ppm; Table 3-1). The lowest concentrations of total PCBs were measured in Outer Harbor sediments (Figure 3-5).

Total PCB concentrations were compared with published sediment data quality guidelines, effects range-low (ER-L, 0.0227 ppm) and effects range-medium (ER-M, 0.18 ppm) (Long et al., 1995). All samples in the Upper and Lower Harbors had total PCB concentrations greater than the ER-M. Of the 23 sampling locations in the Outer Harbor, nine stations had total PCB concentrations less than the ER-L and seven were below the ER-M but above the ER-L. The remaining seven Outer Harbor stations were above the ER-M. Table 3-2 shows the total PCB values for all stations sampled during LTM VI. The samples that were below the ER-L are bolded and the stations that were between the ER-L and ER-M level are italicized.

Table 3-1. Total Organic Carbon, Grain Size, and PCB Summary Results for New Bedford Harbor LTM VI Survey

Area	Parameter	Units	No. Obs.	% Detected	MIN	Mean	Std. Dev.	Median	MAX	Location of MAX (Station ID)
Upper Harbor	Gravel	%	27	100	0.00	6.67	9.04	3.00	30.0	154-14LTM
	Sand ¹	%	27	100	1.00	32.7	26.4	26.0	84.0	151-14LTM
	Fines ²	%	27	100	4.00	61.3	31.8	68.0	99.0	111-14LTM; 138-14LTM
Lower Harbor	Gravel	%	29	100	0.00	7.2	11.1	3.00	44.0	218-14LTM; 333-14LTM
	Sand ¹	%	29	100	3.00	42.0	23.4	46.0	86.0	208-14LTM
	Fines ²	%	29	100	7.00	50.7	28.2	42.0	97.0	235-14LTM
Outer Harbor	Gravel	%	23	100	0.00	6.96	11.8	2.00	44.0	333-14LTM
	Sand ¹	%	23	100	4.00	43.1	28.5	35.0	92.0	306-14LTM; 311-14LTM
	Fines ²	%	23	100	3.00	50.0	30.9	63.0	92.0	323-14LTM
Upper Harbor	TOC	%	27	100	0.26	4.76	2.49	5.14	8.38	108-14LTM
Lower Harbor		%	29	100	0.38	2.69	1.49	2.35	5.71	230-14LTM
Outer Harbor		%	23	100	0.07	1.41	0.98	1.38	3.49	334-14LTM
Upper Harbor	Total PCB ³	ppm	27	NA	0.502	83.1	184	24.6	934	115-14LTM
Lower Harbor		ppm	29	NA	0.226	2.82	2.34	1.98	8.70	230-14LTM
Outer Harbor		ppm	23	NA	0.003	0.166	0.222	0.055	0.766	304-14LTM

¹ Sand is a sum of all sand fractions (very coarse, coarse, medium, fine, very fine).

² Fines is a sum of the silts and clays.

³ Total PCB is the sum of 18 NS&T congeners using surrogate corrected data and ½ the RL for non-detects.

Table 3-2. Total PCB Values for All Stations with Values below the ER-L and ER-M Denoted

Upper Harbor		Lower Harbor		Outer Harbor	
Station ID	Total PCBs (ppm)	Station ID	Total PCBs (ppm)	Station ID	Total PCBs (ppm)
105-14LTM	69.7	202-14LTM	2.55	304-14LTM	0.766
108-14LTM	11.4	204-14LTM	5.79	306-14LTM	0.003
109-14LTM	139.3	207-14LTM	3.76	309-14LTM	0.384
111-14LTM	113.5	208-14LTM	1.02	310-14LTM	0.441
114-14LTM	87.4	211-14LTM	2.33	311-14LTM	0.015
115-14LTM	934	212-14LTM	4.34	317-14LTM	0.644
117-14LTM	333	216-14LTM	1.02	318-14LTM	0.012
120-14LTM	28.1	217-14LTM	7.27	323-14LTM	0.187
121-14LTM	74.3	218-14LTM	0.474	324-14LTM	0.457
123-14LTM	48.7	220-14LTM	2.77	325-14LTM	0.270
125-14LTM	40.9	221-14LTM	1.52	<i>331-14LTM</i>	<i>0.120</i>
126-14LTM	2.88	222-14LTM	5.90	332-14LTM	0.022
128-14LTM	126	224-14LTM	3.99	333-14LTM	0.019
130-14LTM	47.6	225-14LTM	2.03	<i>334-14LTM</i>	<i>0.096</i>
131-14LTM	23.5	226-14LTM	5.93	<i>335-14LTM</i>	<i>0.125</i>
134-14LTM	59.1	227-14LTM	1.98	<i>338-14LTM</i>	<i>0.071</i>
135-14LTM	0.498	230-14LTM	8.70	<i>339-14LTM</i>	<i>0.055</i>
139-14LTM	17.7	231-14LTM	1.56	340-14LTM	0.019
138-14LTM	24.6	235-14LTM	1.21	<i>341-14LTM</i>	<i>0.024</i>
140-14LTM	22.0	236-14LTM	3.53	<i>345-14LTM</i>	<i>0.052</i>
146-14LTM	7.84	237-14LTM	0.915	346-14LTM	0.004
147-14LTM	3.05	240-14LTM	6.76	349-14LTM	0.010
150-14LTM	11.4	241-14LTM	0.993	352-14LTM	0.018
151-14LTM	2.64	242-14LTM	1.12		
152-14LTM	12.7	245-14LTM	1.13		
154-14LTM	0.574	247-14LTM	1.74		
155-14LTM	0.793	249-14LTM	0.923		
		250-14LTM	0.355		
		253-14LTM	0.226		

Bolded values have values below the ER-L (0.0227 ppm); *Italicized* items are between the ER-L (0.0227 ppm) and ER-M (0.18 ppm).

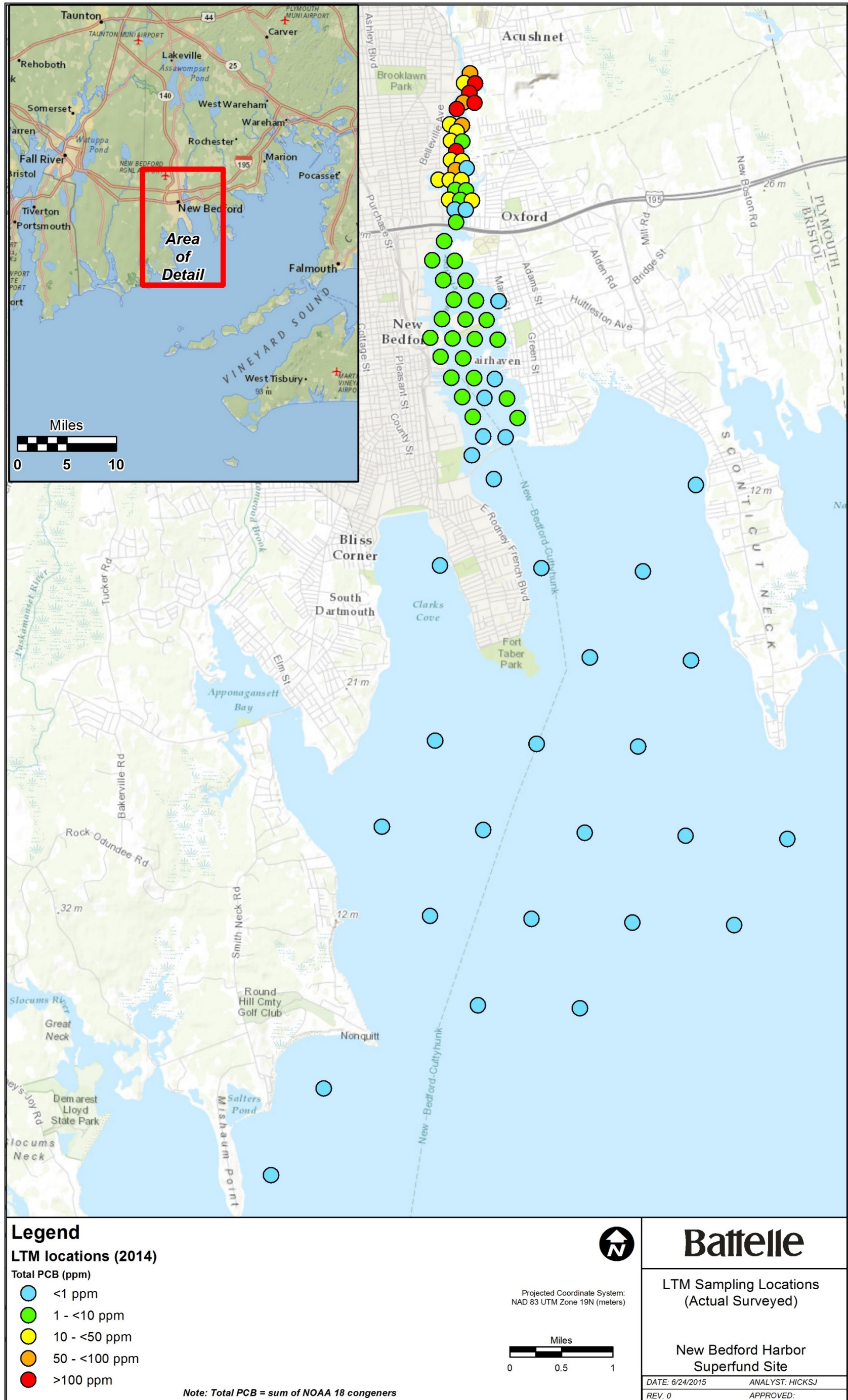


Figure 3-2. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples at New Bedford Harbor

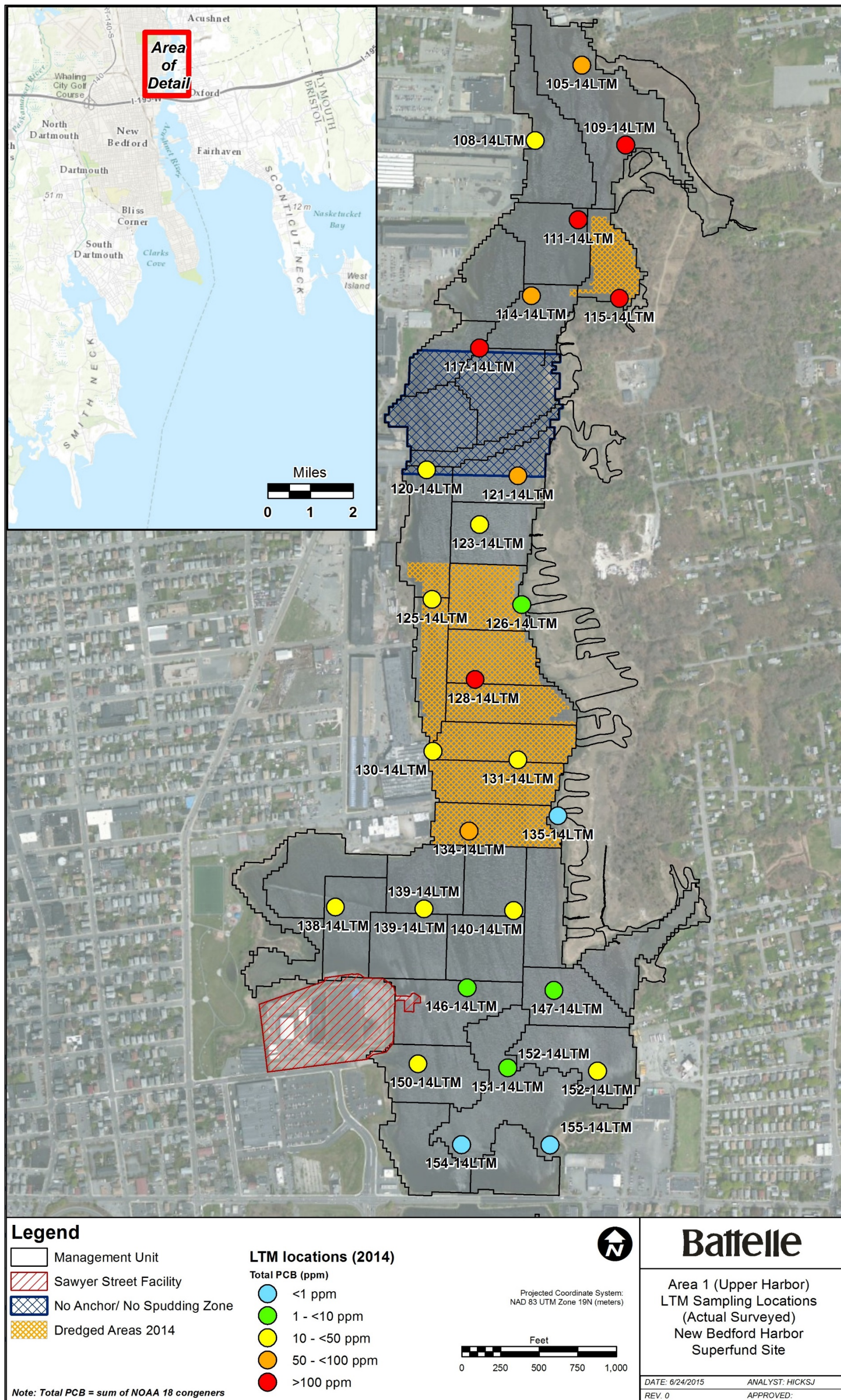


Figure 3-3. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples in the Upper Harbor

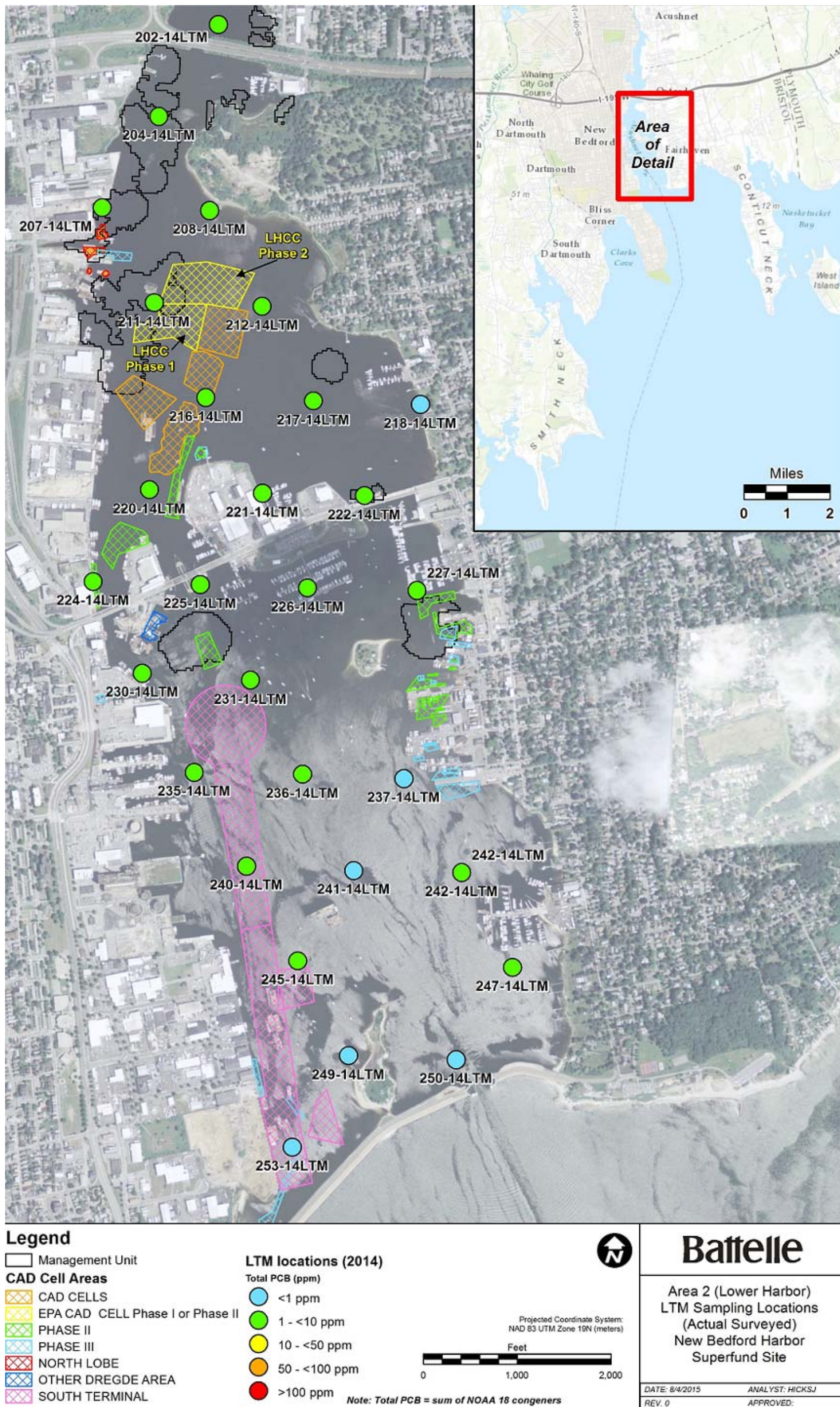


Figure 3-4. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples collected in the Lower Harbor

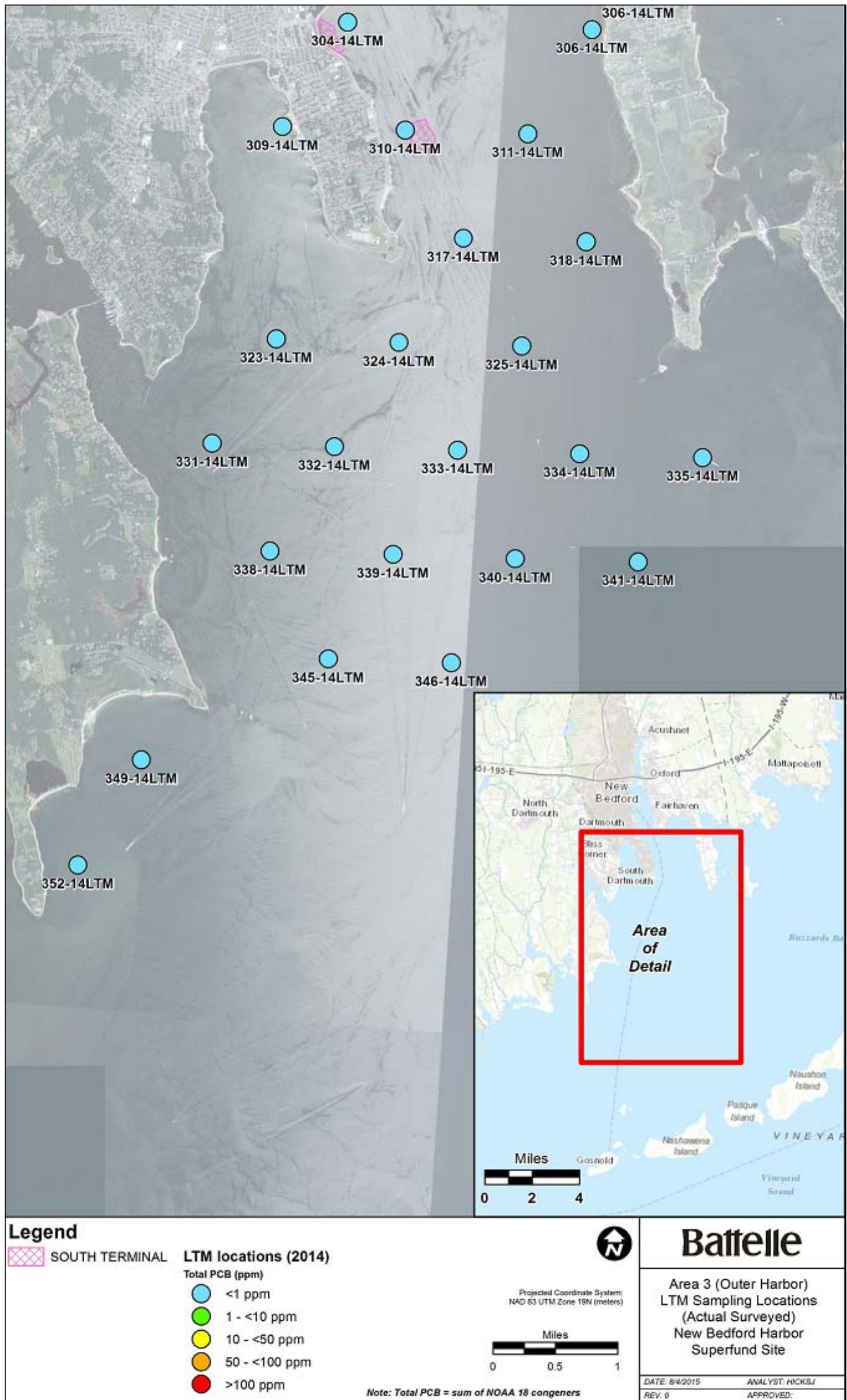


Figure 3-5. Total PCB Concentrations (ppm) in LTM VI Surface (top 2 cm) Sediment Samples in the Outer Harbor

3.2.4 BENTHIC INFAUNA OF THE SEDIMENT SURFACE

Laboratory analysis of the benthic samples included identification of all species collected. Following EMAP protocols, oligochaetes were not identified to the species level. Oligochaetes are included in both density and species richness totals. In addition, when juvenile or damaged specimens could not be identified to species, the category “sp.” was used. If no species were identified in the genus to which these specimens belong within any given Harbor area, then the taxon is included in discussions of both density and species richness for that area and is included in the species list. If species were identified (and especially if more than one species was identified) in the genus in a given Harbor area, then the taxon was considered as contributing to the total density of infaunal organisms, but was not included in discussions of species richness nor in the species list.

Table 3-3 shows the number of taxa and total count (sum of organisms collected in all replicates) in each of the three areas sampled. There were clear gradients of increasing species richness and decreasing counts from the Upper to the Outer Harbor. Although the number of stations sampled differed slightly among the areas, the differences in species richness and number of individuals (count) were large enough to dismiss the sampling effort as a major factor. Overall, the Lower Harbor had only 20% of the individuals but nearly 30% more species than the Upper Harbor and the Outer Harbor had only 16% of the individuals but almost twice as many species as the Lower Harbor.

Table 3-3. Species Richness and Total Density in the Three Areas of New Bedford Harbor

	Area		
	Upper	Lower	Outer
Mean Number of Taxa per station	23.8	22.1	40.6
Mean Number of Individuals per Station	3197	956	916
Species Richness	139	175	273
Total Count	86318	27715	21497

3.2.4.1 UPPER HARBOR (AREA 1)

Stations in the Upper Harbor were characterized by intermediate species richness (as measured by number of taxa; ranging from 17 to 46 unique taxa per station and averaging 23.8) and high densities, particularly of the dominant organisms (Appendix F). Table 3-4 shows the top dominant species (those contributing $\geq 1\%$ of total infaunal count), their total count in all Upper Harbor replicates combined, and the number of stations within the Upper Harbor where they occurred.

Three species had greater than 10% dominance in the Upper Harbor, including *Gemma gemma* followed by *Mulinia lateralis* and *Streblospio benedicti*. *Gemma gemma* was the most abundant species (40.0%), and was found at 24 of the 27 Upper Harbor locations. The highest station count (17,925), 51.8% of the individuals, was found at Station 117. *Mulinia lateralis*, a small opportunistic bivalve, was the second most dominant organism (14.4%) and found at 21 of the 27 Upper Harbor stations. The third most abundant species in the Upper Harbor (12.8%) was *Streblospio benedicti*, a small polychaete relatively tolerant to elevated levels of sediment organics (Reish, 1979), a trait that contributes to its success as a pioneering, opportunistic species. It was found in 26 of the 27 Upper Harbor locations. Of the 11,062 individuals found in the Upper Harbor, 36.5% were found at three stations (Stations 111, 130 and 138).

Table 3-4. Dominant Species in NBH Area 1 (Upper Harbor)

Species	Total Count	Percent Dominance	Number of Stations
<i>Podarke obscura</i>	885	1.0%	24
<i>Pectinaria gouldi</i>	1024	1.2%	25
<i>Polydora cornuta</i>	1310	1.5%	23
<i>Hypereteone fauchaldi</i>	1701	2.0%	26
<i>Capitella capitata complex</i>	1720	2.0%	16
<i>Leitoscoloplos sp.</i>	2182	2.5%	26
<i>Hydrobia sp.</i>	2269	2.6%	8
<i>Hydrobia totteni</i>	2876	3.3%	8
<i>Tubificidae spp.</i>	3207	3.7%	26
<i>Tharyx acutus</i>	6158	7.1%	21
<i>Streblospio benedicti</i>	11062	12.8%	26
<i>Mulinia lateralis</i>	12447	14.4%	21
<i>Gemma gemma</i>	34564	40.0%	24

3.2.4.2 LOWER HARBOR (AREA 2)

Stations in the Lower Harbor were characterized by intermediate species richness (ranging from 6 to 59 taxa per station, averaging 22.1) and intermediate counts. Table 3-5 shows the top dominant species, their total count in all Lower Harbor replicates combined, and the number of stations within the Lower Harbor where they occurred.

Three species had greater than 10% dominance in the Lower Harbor, including *Tharyx acutus*, *Tubificidae spp.* and *Streblospio benedicti*. *Tharyx acutus* was the most abundant species (15.0%) in the Lower Harbor, occurring at a higher percentage but with lower numbers than in Upper Harbor. It was found at 19 of the 29 Lower Harbor Stations with 96.7% of the individuals present in just six stations (Stations 207, 216, 218, 230, 237, 250) with the highest count (1159) at Station 218. The clitellate oligochaete *Tubificidae spp.* was the second most dominant organism (13.8%) and found in 24 of the 29 stations. The highest count (1,786), which is 46.8% of the total individuals in the Lower Harbor, was found at Station 224. The third most abundant species in the Lower Harbor, as well as the Upper Harbor, was *Streblospio benedicti*. It was found in 26 of the 29 stations at a similar percentage, 12.6%, but a much smaller number of individuals relative to the Upper Harbor.

Table 3-5. Dominant Species in NBH Area 2 (Lower Harbor)

Species	Total Count	Percent Dominance	Number of Stations
<i>Gemma gemma</i>	323	1.2%	5
<i>Cylichna oryza</i>	366	1.3%	3
<i>Ampelisca abdita</i>	513	1.9%	12
<i>Polydora cornuta</i>	527	1.9%	18
<i>Leitoscoloplos robustus</i>	628	2.3%	8
<i>Hypereteone fauchaldi</i>	654	2.4%	25
<i>Macoma tenta</i>	707	2.6%	17
<i>Ampelisca sp.</i>	739	2.7%	16
<i>Pectinaria gouldi</i>	905	3.3%	21
<i>Leitoscoloplos sp.</i>	1218	4.4%	24
<i>Mediomastus ambiseta</i>	1293	4.7%	21
<i>Capitella capitata complex</i>	1352	4.9%	21
<i>Grandidierella bonnieroides</i>	1482	5.3%	20
<i>Mulinia lateralis</i>	1843	6.6%	23
<i>Streblospio benedicti</i>	3503	12.6%	26
<i>Tubificidae spp.</i>	3814	13.8%	24
<i>Tharyx acutus</i>	4167	15.0%	19

3.2.4.3 OUTER HARBOR (AREA 3)

Stations in the Outer Harbor were characterized by the highest species richness (ranging from 17 to 104 taxa per station and averaging 40.6) and the lowest counts of all three areas. The relatively low number of widespread taxa exemplifies the greater complexity of the infaunal community in the Outer Harbor. Table 3-6 shows the top dominant species and their total count in all Area 3 replicates combined.

Macoma tenta and *Tharyx acutus* were the top two most abundant taxa, each comprising 10% or 11%, respectively, of the total abundance. *Macoma tenta* was found at 14 of the 23 stations and at four of these stations (334, 338, 339, 340) the counts were between 333 and 378 individuals per station. The cirratulid *Tharyx acutus* also reached its highest abundance at this station (11.2%) and 2,407 individuals were counted. It was present in 16 of the 23 Outer Harbor stations with 94% of the individuals found at just four stations (304, 333, 335, and 352). It was most abundant at Station 352 with a count of 896 individuals, which is 37.2% of the total individuals counted in the Outer Harbor.

Table 3-6. Dominant Species in NBH Area 3 (Outer Harbor)

Species	Total Count	Percent Domiance	Number of Stations
<i>Mediomastus</i> spp.	232	1.1%	4
<i>Scolelepis texana</i>	242	1.1%	11
<i>Nemertinea</i>	250	1.2%	21
<i>Crepidula plana</i>	251	1.2%	9
<i>Nucula proxima</i>	276	1.3%	17
<i>Anadara transversa</i>	280	1.3%	12
<i>Prionospio (minuspio) perkinsi</i>	296	1.4%	14
<i>Globosolembos smithi</i>	311	1.4%	8
<i>Nephtys incisa</i>	368	1.7%	12
<i>Mitrella lunata</i>	385	1.8%	18
<i>Boonea seminuda</i>	688	3.2%	11
<i>Acteocina canaliculata</i>	828	3.9%	15
<i>Myodocopa</i>	871	4.1%	17
<i>Mediomastus ambiseta</i>	987	4.6%	18
<i>Cylichna oryza</i>	1007	4.7%	12
<i>Polygordius</i> sp. a	1078	5.0%	5
<i>Tubificidae</i> spp.	1116	5.2%	20
<i>Crepidula fornicata</i>	1467	6.8%	9
<i>Macoma tenta</i>	2159	10.0%	14
<i>Tharyx acutus</i>	2407	11.2%	16

3.3 QUALITY CONTROL

Grain size, TOC, total PCB, and benthic infauna results from the field- and laboratory-based QC samples are reported with the laboratory data packages provided in Appendices C through F. Results from the analysis of the field- and laboratory-based QC samples were evaluated against the MPC as described in Worksheet #28 of the QAPP (Battelle, 2014b) to assess accuracy and precision.

3.3.1 FIELD REPLICATES

Four field replicates (a second grab collected at a given station) were collected, resulting in four field replicates for the LTM VI sampling event. The relative percent difference (RPD) between PCB and TOC data met MPC criteria (<50% RPD) (Table 3-7). Field replicates of the chemistry grab were not subsampled for grain size distribution because benthic infauna grabs were sampled in triplicate and each was subsampled for grain size distribution analysis.

Table 3-7. Total PCB and TOC in Field Replicates Results (Surface top 2 cm)

Station	Total PCB (ppm dry weight)		RPD	TOC (%)		RPD
	Original	Field Replicate		Original	Field Replicate	
139	24.6	26.0	2.63	5.76	6.37	6.82
152	12.8	11.0	10.8	4.72	3.98	11.0
242	1.12	1.10	0.00	1.54	2.26	27.0
306	0.003	0.002	4.00	0.076	0.068	7.27

3.3.2 LABORATORY QUALITY CONTROL SAMPLES

The review of the laboratory QC data for the grain size, TOC, and total PCB analyses is documented in quality assurance (QA)/QC narratives, which are provided with the sample data in Appendices C through F.

The grain size fractions reported were gravel, very coarse sand, coarse sand, medium sand, fine sand, very fine sand, silt, and clay. The precision between grain size fraction results, for laboratory duplicates and field replicates, frequently met the QAPP MPC for the fine grained fractions (i.e., silt, clay and fine sand) but was more variable for the coarser fractions (e.g., gravel, very coarse sand) that were measured at levels closer to the detection limits.

For TOC, the laboratory QC data met the MPC, indicating that the analytical methods were in control and data quality is acceptable. For example, the method blanks had no detects. The RPD for the lab duplicates ranged from 0 to 49%; all met the MPC (25%) with the exception of one replicate in one batch. The SRM recoveries were between 84% and 119%, which were within the MPC of 75 to 125%.

For PCB analyses, laboratory-based QC samples met the MPC, indicating that the quality of the PCB data is acceptable and the analytical methods are in control. For example, target PCB congeners were undetected in the procedural blanks, indicating that the methods were free of contamination. In addition, recovery and precision results for LCS and LCS duplicate (LCSD) QC samples were acceptable for all target compounds, indicating that the methods were in control. Recovery and precision results for the MS and MSD were good with no exceedances noted in any of the batches. PCB surrogate recoveries also generally met the project data quality objectives. Two exceedances occurred at Station 115 for the undiluted sample which exhibited high levels of target analytes that interfered with SIS and internal standards. The primary dilution is used as the primary file for this sample, where the SIS was diluted out. SIS are appropriately H qualified.

During review of the PCB data it was revealed that each batch of samples included all required QC samples, except for the SRM. Rather, the laboratory analyzed a matrix duplicate, which was not required according to the project QAPP.

Results from the Tier I validation of the grain size, TOC, and PCB congener data indicate that these data are useable. The data validation reports are provided in Appendix G.

The benthic infauna analysis laboratory QC consisted of a review of accuracy rates for sorting and identification. Results indicated that the sorting and identification accuract rates were well above standard levels for taxonomy. All taxonomic data were entered into EXCEL spreadhseets. The data was checked for accuracy against original taxonomic data sheets. The sorting QC results were 100% for all 17 QC samples analyzed. The taxonomy QC results ranged from 96 to 100% for all 35 samples/taxa reviewed. The laboratory data were found to be acceptable.

Chapter 4. Discussion

This section includes a brief discussion of the LTM (1993-2014) data for total PCB and benthic infauna; a more detailed evaluation of spatial and temporal trends in the LTM data (1993 to 2014) will be performed by EPA.

As has been the case since 1993, levels of total PCBs are generally highest in the Upper Harbor and decrease along a gradient to the Outer Harbor (Table 4-1). The table also shows that in 2014, average concentrations of total PCBs are comparable to 2009 in the Upper Harbor, show a notable decrease in the Lower Harbor between 2009 and 2014 and a smaller overall decrease in the Outer Harbor since the program started in 1993.

Table 4-1. Average Total PCB Concentrations in Surface (top 2 cm) Sediment at New Bedford Harbor, LTM 1993 to 2014

Area	Total PCB (ppm)					
	2014	2009 ¹	2004 ¹	1999 ¹	1995 ¹	1993 ¹
Upper Harbor	83	75	61	109	139	109
Lower Harbor	2.8	5.1	4.8	7.2	7.2	7.4
Outer Harbor	0.2	0.2	0.2	0.4	0.4	0.8

¹ Total PCB values taken from Nelson and Bergen (2012) which are surface weighted average values; 2014 values are the arithmetic mean.

Species richness of the New Bedford Harbor benthic community is lowest in the Upper Harbor and increases from north to south through the Harbor with the highest species richness found in the Outer Harbor (Table 3-3). In the Upper Harbor in 2014, the top three dominant species were *Streblospio benedicti*, *Mulinia lateralis*, and *Gemma gemma*. The polychaete *Streblospio benedicti* and the bivalve *Gemma gemma* have consistently been among the dominant taxa throughout the first four LTM surveys that took place (ENSR, 2001). Stations in the Lower Harbor were characterized by intermediate species richness and intermediate counts. Table 3-5 shows the top dominant species in 2014. Three species had greater than 10% dominance in the Lower Harbor, including *Tharyx acutus*, *Tubificidae spp.* and *Streblospio benedicti*. *Tharyx acutus* was the most abundant species (15.0%) in the Lower Harbor, occurring at a higher percentage but with lower numbers than in the Upper Harbor. Stations in the Outer Harbor were characterized by the highest species richness and the lowest counts of all three areas. The relatively low number of widespread taxa exemplifies the greater complexity of the infaunal community in the Outer Harbor.

Chapter 5. References

- Battelle. 2014a. Draft Final Long Term Monitoring Field Sampling Plan, Environmental Monitoring, Sampling, and Analysis, New Bedford Harbor Superfund Site, New Bedford, Massachusetts. Prepared under Contract W912WJ-12-D-0004 Task Order No 0010 for the U.S. Army Corps of Engineers New England District, Concord, MA. April.
- Battelle. 2014b. Final Quality Assurance Project Plan Addendum Revision 7.0, Environmental Monitoring, Sampling, and Analysis, New Bedford Harbor Superfund Site, New Bedford, Massachusetts. Prepared under Contract W912WJ-12-D-0004 Task Order No 0010 for the U.S. Army Corps of Engineers New England District, Concord, MA. April.
- ENSR. 2001. Final New Bedford harbor Long Term Monitoring Survey III: summary Report. March 2001.
- Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder. 1995. Incidence of adverse biological effects with ranges of chemical concentrations in marine and estuarine sediments. *Environmental Management* 19(1):81–97.
- Nelson, W.G. and B.J. Bergen. 2012. The New Bedford Harbor Superfund site long-term monitoring program (2003-2009). *Environmental Monitoring and Assessment*, December 2012, Volume 184,
- Reish, D.J. 1979. Bristle worms (Annelida: Polychaeta). Pp 77-125 in: Hart CW and Fuller SLH (eds). *Pollution Ecology of Estuarine Invertebrates*. Academic Press, New York. Issue 12, pp 7531-7550.
- United States Environmental Protection Agency (EPA). 1995. Environmental Monitoring and Assessment Program (EMAP): Laboratory Methods Manual – Estuaries, Volume I: Biological and Physical Analyses, Office of Research and Development, Narragansett, RI. EPA/620/R-95/008.
- Versar, Inc. 1991. EMAP Near-Coastal Laboratory Procedures – MacroBenthic Community Assessment Revised. February 1, 1991.
- Woods Hole Group, 2010. Final Summary Report, New Bedford Harbor Long Term Monitoring V, New Bedford Harbor Superfund Site, New Bedford, Massachusetts. Prepared under Contract W912WJ-12-D-0000 Task Order No 0018 for the U.S. Army Corps of Engineers New England District, Concord, MA. November.

This page left intentionally blank.

Appendix A
Final Field Survey Report

This page left intentionally blank.

FINAL SURVEY REPORT

for

**Field Sampling in Support of New Bedford Harbor
Long-Term Monitoring VI
New Bedford Harbor, Massachusetts**

Submitted to

**Department of the Army
U.S. Army Corps of Engineers
North Atlantic Division
New England District**

**Contract Number: W912WJ-12-D-0004
Delivery Order Number: DO#19**

January 12, 2015

Prepared by:

Battelle
The Business of Innovation

This page intentionally left blank.

TABLE OF CONTENTS

1. Introduction	1
2. Methods	6
2.1. In Situ Sensor Data Collection	7
2.2. Sediment Grab Sample Collection and Processing	10
3. Survey Chronology	11
4. Survey Results	14
5. Problems Experienced, Actions Taken, and Recommendations	14
5.1. Logistical	14
5.2. Technical	14
6. References	14

TABLES

Table 1. Survey Personnel for Gale Force New Bedford Harbor LTM VI	6
Table 2. Survey Personnel for Cynthia Lee New Bedford Harbor LTM VI	6
Table 3. In Situ Data Water Quality Data from New Bedford Harbor LTM IV Collections	7
Table 4. Chronology of Sampling Days	11

FIGURES

Figure 1. Overview of New Bedford Harbor LTM Sampling Locations	2
Figure 2. Area 1 (Upper Harbor) LTM Sampling Locations	3
Figure 3. Area 2 (Lower Harbor) LTM Sampling Locations	4
Figure 4. Area 3 (Outer Harbor) LTM Sampling Locations	5

ATTACHMENTS

- Attachment A. Field Data Sheets**
- Attachment B. Chain of Custody Logs**
- Attachment C. GPS Calibration Forms**
- Attachment D. Daily Tailgate Safety Meeting Record Forms**

This page intentionally left blank.

ACROYNMS

AED	Atlantic Ecology Division
dGPS	differential global positioning system
EPA	U.S. Environmental Protection Agency
LTM	long-term monitoring
PCB	polychlorinated biphenyl
QAPP	Quality Assurance Project Plan
ROD	Record of Decision
TOC	total organic carbon
USACE NAE	U.S. Army Corps of Engineers New England District

This page intentionally left blank.

1. Introduction

In order to assess the effectiveness of the New Bedford Harbor Superfund remediation efforts, a long-term environmental monitoring plan has been developed by the U.S. Environmental Protection Agency's Research Laboratory, Atlantic Ecology Division (EPA AED) in Narragansett, Rhode Island. This plan incorporates an intensive sampling and analysis effort for the purpose of quantifying the long-term environmental effects of reduced polychlorinated biphenyl (PCB) levels in the sediments and water column of the New Bedford Harbor estuary as a result of remediation efforts. The five previous sampling rounds for this program include the "baseline" sampling event conducted in October 1993 (long-term monitoring [LTM] I), a second event (LTM II) conducted immediately after removal of the "hot spot" sediments in October of 1995 and three subsequent events conducted in 1999, 2004, and 2009 (LTM III, IV, and V). This Survey Report describes the sampling activities conducted under the sixth round of sampling and analysis (LTM VI). This work was performed by Battelle for the U.S. Army Corps of Engineers New England District (USACE NAE). CR Environmental participated in the collection activities as a subcontractor to Battelle.

The overall objective of LTM VI was to gather chemical, biological, and physical data for sediments currently in place after multiple years of dredging. Sampling was conducted at 79 separate stations located in three distinct geographical areas of New Bedford Harbor (Figure 1):

- Area 1 – Wood Street to the Coggeshall Street Bridge (27 stations, Figure 2)
- Area 2 – Coggeshall Street Bridge to Hurricane Barrier (29 stations, Figure 3)
- Area 3 – Hurricane Barrier to edge of Fishing Closure Area 3 (23 stations, Figure 4)

Sediment samples were collected at each of the 79 stations for chemical (PCBs and total organic carbon [TOC] content), physical (grain size), and biological (benthic species enumeration) analyses. An additional sample from 20 locations identified by EPA was collected for research purposes being conducted under a separate effort. In situ field measurements (temperature, salinity, turbidity, and dissolved oxygen) were also collected. The actual sampling locations in each of the areas are shown in Figures 2, 3 and 4.

This survey report describes the activities conducted during sampling and provides a synopsis of some preliminary observations from the survey. A description of survey methods is provided in Section 2. A chronological summary of survey activities for grab sampling and in situ data collection is provided in Section 3. Preliminary survey results are provided in Section 4. A description of survey problems and corrective actions, as well as recommendations for future surveys, can be found in Section 5.

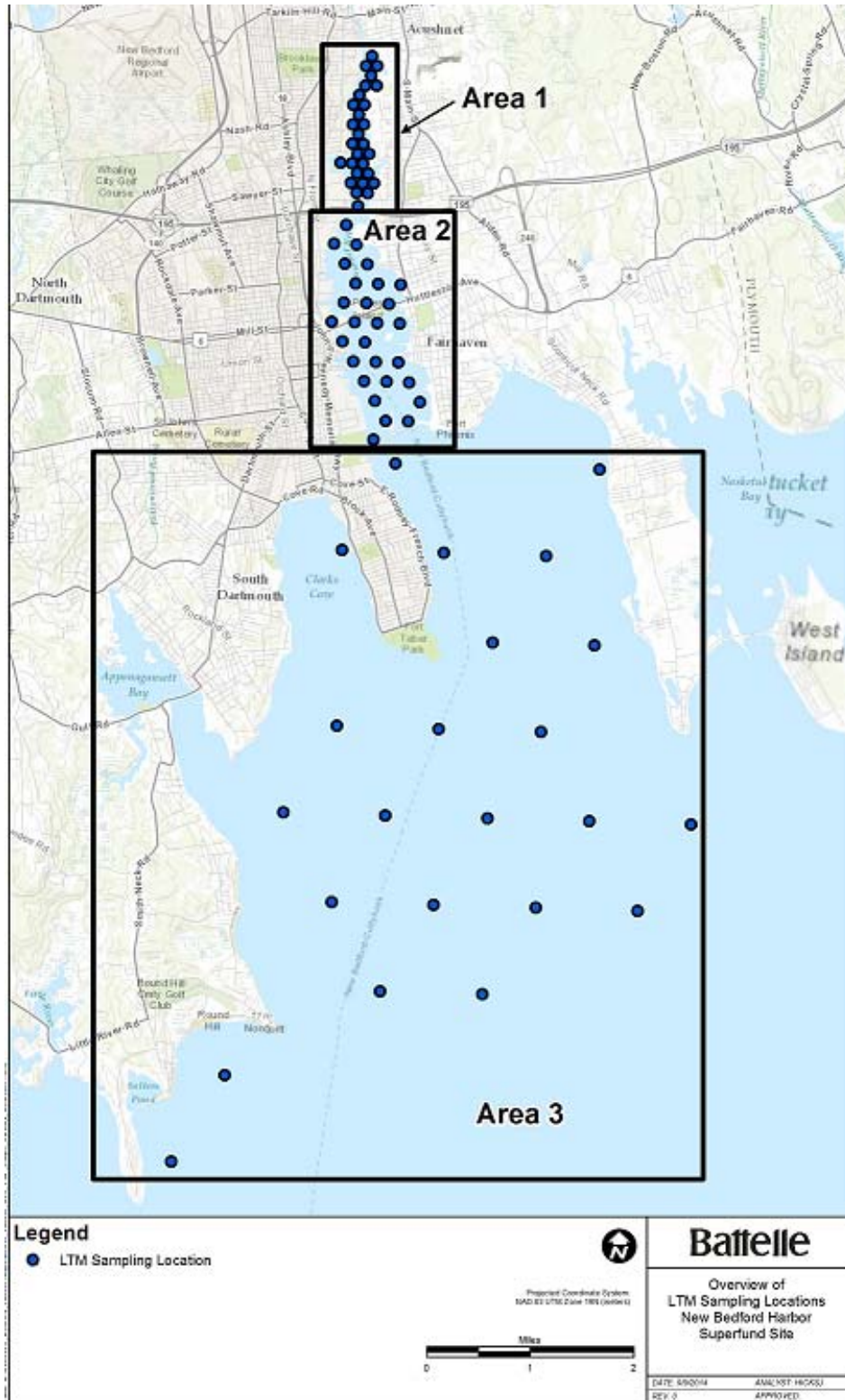


Figure 1. Overview of New Bedford Harbor LTM Sampling Locations

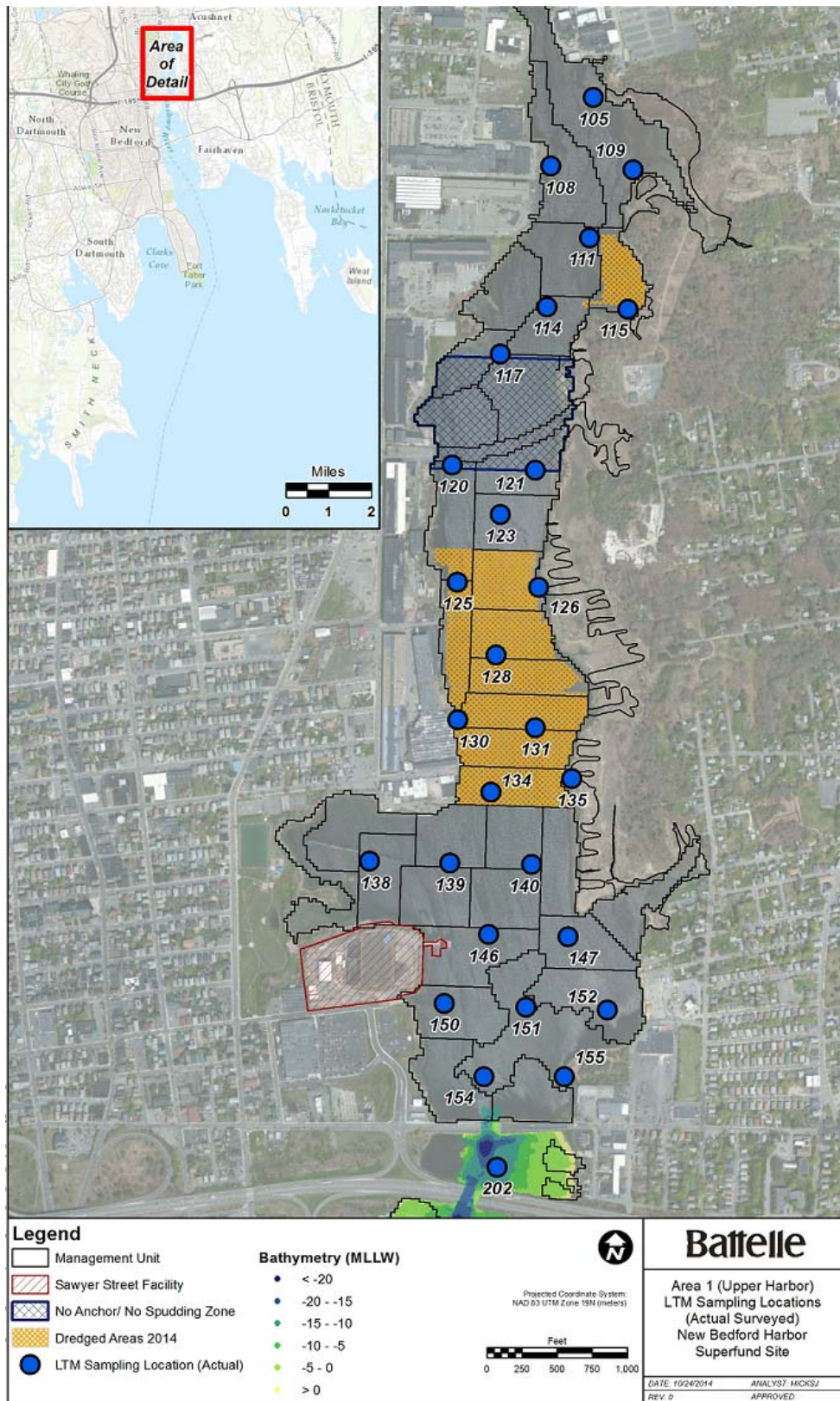


Figure 2. Area 1 (Upper Harbor) LTM Sampling Locations

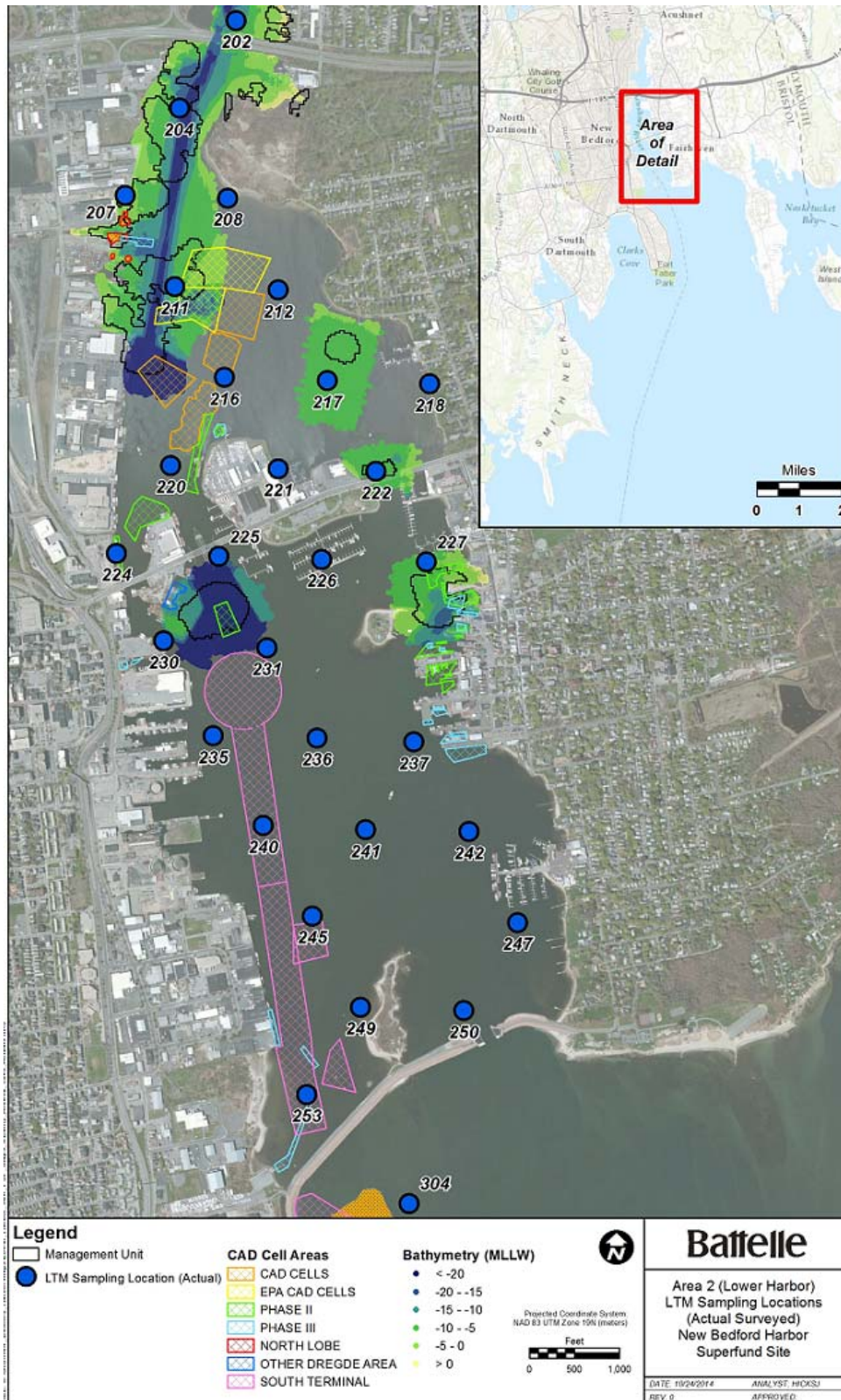


Figure 3. Area 2 (Lower Harbor) LTM Sampling Locations

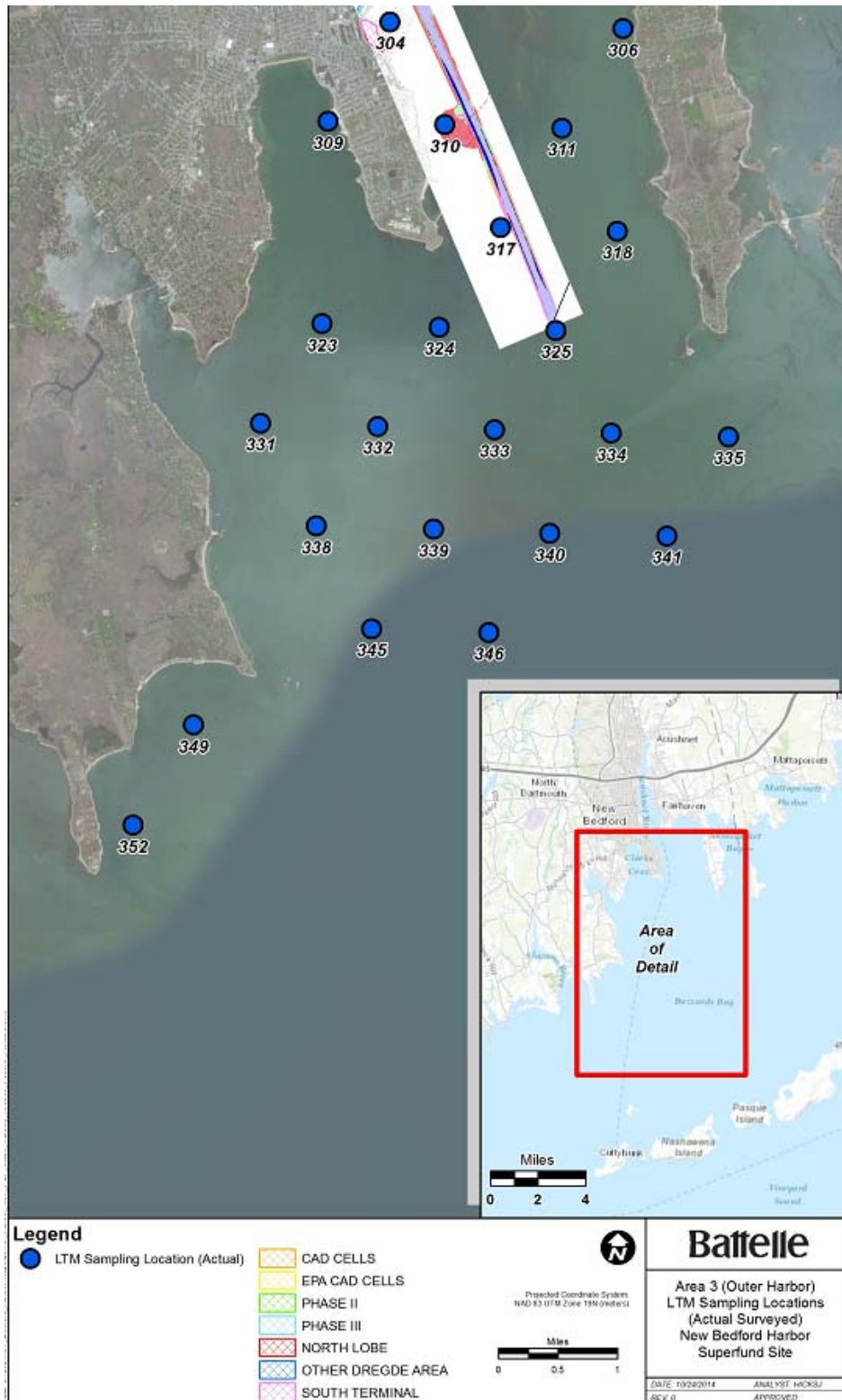


Figure 4. Area 3 (Outer Harbor) LTM Sampling Locations

2. Methods

Details on the survey/sampling methods can be found in the Draft Final New Bedford Harbor Long-Term Monitoring VI Field Sampling Plan which is included as Appendix B to the Final New Bedford Harbor Long-Term Monitoring VI Quality Assurance Project Plan (QAPP; Battelle, 2014).

Field collections were performed using two separate field teams each equipped with its own vessel, chief scientist, crews, and full set of sampling equipment. The two vessels were the *R/V Gale Force*, a 20-ft pontoon boat, and the *R/V Cynthia Lee*, a 42-foot provincial lobster boat. Mobilization occurred on September 19 and the morning of September 22, 2014. Demobilization occurred over two days, October 1 and 2, 2014. Survey personnel and roles are listed below in Tables 1 and 2.

Table 1. Survey Personnel for Gale Force New Bedford Harbor LTM VI

Date	Gale Force			Land Member	Visitor(s)
	Captain	Chief Scientist	Field Technician	Sample Custodian	
9/19/2014	NA	NA	NA	NA	NA
9/22/2014	Mike Walsh	Paul Sokoloff	Sam Guimeras	NA	NA
9/23/2014	Alex Mansfield	Paul Sokoloff	Sam Guimeras	Jessica Tenzar and Amanda Maxemchuk	NA
9/24/2014*	NA	NA	NA	Amanda Maxemchuk	NA
9/25/2014	Alex Mansfield	Paul Sokoloff	Sam Guimeras	Jessica Tenzar	NA
9/26/2014	Mike Walsh	Paul Sokoloff	Sam Guimeras	Amanda Maxemchuk	NA
9/29/2014	Alex Mansfield	Paul Sokoloff	Sam Guimeras	Jessica Tenzar	Betsy Cutie (Project Quality Assurance Officer)
9/30/2014	Mike Walsh	Paul Sokoloff	NA	Jessica Tenzar	NA
10/1/2014*	NA	NA	NA	Matt Fitzpatrick	NA
10/2/2014*	NA	NA	NA	Matt Fitzpatrick	NA

* Sample collection was not conducted but sample processing and shipping did occur; NA: not applicable

Table 2. Survey Personnel for Cynthia Lee New Bedford Harbor LTM VI

Date	Cynthia Lee				Land Member	Visitor(s)
	Captain	Chief Scientist	Field Technician (Sieving)	Field Technician (Hypack)	Sample Custodian	
9/22/2014	Jarrett Drake	Matt Fitzpatrick	Patrick Curran	Ken Thompson	NA	NA
9/23/2014	Jarrett Drake	Matt Fitzpatrick	Patrick Curran	Ken Thompson	Jessica Tenzar/ Amanda Maxemchuk	NA
9/24/2014	Jarrett Drake	Matt Fitzpatrick	Patrick Curran	Ken Thompson	Amanda Maxemchuk	NA
9/25/2014	Jarrett Drake	Matt Fitzpatrick	Patrick Curran	Ben Mahar	Jessica Tenzar	NA
9/26/2014	Jarrett Drake	Matt Fitzpatrick	Patrick Curran	Ben Mahar	Amanda Maxemchuk	NA
9/29/2014	Jarrett Drake	Matt Fitzpatrick	Patrick Curran	Adrianna Ortiz	Jessica Tenzar	NA
9/30/2014	Jarrett Drake	Matt Fitzpatrick	Patrick Curran	Adrianna Ortiz	Jessica Tenzar	Todd Randall and Jay McKay

						(USACE NAE)
--	--	--	--	--	--	-------------

NA: not applicable

2.1. In Situ Sensor Data Collection

At each station in situ water quality measurements were taken prior to the collection of sediment samples. Measurements included salinity, temperature, turbidity, and dissolved oxygen, and are summarized in Table 3. The measurements were taken using a YSI EXO2 multi-parameter water quality sonde. The sonde was manually lowered to a depth of approximately 0.5 to 1 meter from the bottom, where the depth and in situ data were recorded by hand on the station log sheets.

While on the Gale Force, navigation data were stored electronically in a hand-held differential global positioning system (dGPS) unit and also recorded on the station log sheets. Electronic data were downloaded to a personal computer once the survey was completed. Onboard the Cynthia Lee, navigation data were stored electronically in Hypack[®] software.

Table 3. In Situ Data Water Quality Data from New Bedford Harbor LTM IV Collections

Station ID	Northing ¹	Easting ¹	Sampling Date	Reading Depth (ft) ²	Temperature (°C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
105	2707639.028	815948.507	25-Sep-2014	2	19.2	29.7	2.7	5.2
108	2707141.46	815659.588	26-Sep-2014	0.53	18.9	29.3	2.8	5.6
109	2707130.912	816247.055	25-Sep-2014	2.3	19.1	29.7	1.8	5.6
111	2706636.948	815952.646	26-Sep-2014	3.3	19.8	29.9	2.4	6.5
114	2706135.736	815663.74	26-Sep-2014	2.1	19.7	29.6	3.2	7.2
115	2706136.026	816237.496	25-Sep-2014	0.3	18.9	29.7	1.6	5
117	2705787.328	815338.258	26-Sep-2014	0.53	19.8	29.4	2.9	7.4
120	2704987.104	815018.578	22-Sep-2014	1.08	21.16	30.46	3.82	6.57
121	2704965.646	815611.637	29-Sep-2014	2	20.5	30.2	5.2	5.4
123	2704643.324	815370.663	29-Sep-2014	2.8	20.5	30.3	5.2	5.6
125	2704149.389	815078.936	22-Sep-2014	5.07	20.95	30.47	4.14	6.29
126	2704131.501	815661.063	26-Sep-2014	0.52	18.8	30.3	7.7	5.4
128	2703637.581	815372.068	29-Sep-2014	6.8	20.4	30.6	4.9	5.3
130	2703165.733	815112.969	22-Sep-2014	3.88	20.67	30.57	2.49	5.42
131	2703125.777	815665.213	25-Sep-2014	1.9	19	30.1	3.9	5.9
134	2702657.271	815362.37	22-Sep-2014	4.63	20.81	30.3	2.87	7.54
135	2702770.513	815935.437	23-Sep-2014	0.2	18.4	30.2	2	6.2
138	2702137.66	814510.599	26-Sep-2014	3	18.7	30.5	3	5.5
139	2702141.566	815084.429	25-Sep-2014	0.1	18.9	29.7	20.1	6
140	2702149.185	815666.431	23-Sep-2014	3.4	20.6	30.2	8.2	7.5
146	2701640.69	815377.511	23-Sep-2014	6.1	20.1	30.4	7.4	5.6

¹ NAD 83 State Plane Massachusetts FIPS 2001

² depth of YSI within the water column at time of collection

Station ID	Northing¹	Easting¹	Sampling Date	Reading Depth (ft)²	Temperature (°C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
147	2701640.916	815943.181	23-Sep-2014	1.5	19.6	30.7	2.7	5.7
150	2701139.392	815074.866	22-Sep-2014	7.44	20.35	30.56	2.57	5.24

Table 3. In Situ Data Water Quality Data from New Bedford Harbor LTM IV Collections (continued)

Station ID	Northing ¹	Easting ¹	Sampling Date	Reading Depth (ft) ²	Temperature (°C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
151	2701128.792	815657.018	23-Sep-2014 ³	2.3	19.6	30.4	6.2	6.1
152	2701125.495	816239.12	26-Sep-2014	1.83	18.5	30.4	2.96	5.57
154	2700623.959	815370.792	25-Sep-2014	12.8	18.9	30.5	3.3	5.4
155	2700638.818	815944.584	23-Sep-2014 ³	0.1	17.9	30.1	2.3	5.6
202	2699979.743	815484.509	23-Sep-2014	11.8	19.8	30.52	4.3	5.6
204	2698984.073	814879.117	30-Sep-2014	13.2	19.72	32.97	6.02	5.97
207	2697993.014	814306.441	29-Sep-2014	0.3	20.5	30.8	11.1	6.7
208	2697997.147	815448.863	29-Sep-2014	0.7	20.4	30.9	2.7	6.8
211	2696994.853	814887.195	30-Sep-2014	10.67	19.76	33.11	2.61	6.28
212	2696991.423	816038.465	30-Sep-2014	8.01	19.72	33.03	3.96	6.1
216	2696000.711	815467.424	22-Sep-2014	9.41	20.29	32.9	1.16	5.83
217	2695997.272	816613.277	30-Sep-2014	9.2	19.57	32.99	3.25	5.89
218	2695994.231	817755.848	29-Sep-2014	0.5	20.6	30.9	2.5	6.6
220	2695000.531	814895.306	22-Sep-2014	31.45	20.3	33.14	3.72	5.73
221	2694999.278	816098.322	25-Sep-2014	6.8	19.03	32.99	3.12	5.61
222	2695003.482	817185.675	29-Sep-2014	9.1	20.02	33.06	6.2	5.61
224	2694005.113	814324.746	29-Sep-2014	29.7	19.63	33.13	4.89	5.59
225	2694006.303	815463.01	30-Sep-2014	28.16	19.84	33.25	1.5	6.88
226	2694004.324	816609.224	30-Sep-2014	7.6	19.67	33.05	2.92	6.18
227	2694010.559	817775.884	30-Sep-2014	5.59	19.67	33.18	0.8	6.84
230	2693044.278	814875	26-Sep-2014	22.1	18.97	33.19	8.64	5.88
231	2693002.61	816030.007	26-Sep-2014	25.8	18.93	33.21	9.11	6.12
235	2692004.24	815458.099	22-Sep-2014	24.72	20.41	33.19	6.62	5.97
236	2692014.713	816613.62	26-Sep-2014	29.01	18.91	33.23	2.26	6.54
237	2692001.761	817693.304	26-Sep-2014	20.01	18.84	33.25	0.61	6.69
240	2691020.351	816043.598	22-Sep-2014	30.7	20.45	33.16	11.84	5.99
241	2691006.728	817188.399	26-Sep-2014	33.27	18.88	33.21	1.97	6.5
242	2691018.342	818338.495	26-Sep-2014	18.01	18.87	33.22	2.11	6.57
245	2690027.3	816619.64	22-Sep-2014	8.8	20.5	33.17	6.06	6.01
247	2690023.115	818907.816	26-Sep-2014	9.05	18.92	33.19	1.85	6.43
249	2689029.847	817189.2	25-Sep-2014	8.51	19.17	33.21	8.13	6.23
250	2689022.131	818337.067	25-Sep-2014	30.45	19.18	33.26	0.75	6.7
253	2688037.645	816617.472	22-Sep-2014	24.39	20.29	31.7	11.17	5.65
304	2686858.546	817794.285	25-Sep-2014	8.74	18.94	33.28	0.42	7.06
306	2686854.31	828156.256	24-Sep-2014	7.34	19.55	33.45	0.79	8.43
309	2682350.306	815165.768	25-Sep-2014	16	19.09	33.46	0.53	6.92

³ Chemistry sample was re-collected on 30 September 2014.

Table 3. In Situ Data Water Quality Data from New Bedford Harbor LTM IV Collections (continued)

Station ID	Northing ¹	Easting ¹	Sampling Date	Reading Depth (ft) ²	Temperature (°C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
310	2682352.405	820360.836	25-Sep-2014	17.42	19.05	33.31	4.67	7.09
311	2682355.393	825569.314	24-Sep-2014	14.52	19.5	33.39	1.17	7.34
317	2677845.395	822971.323	25-Sep-2014	29.4	19.43	33.44	1.44	7.15
318	2677841.182	828162.815	24-Sep-2014	17.9	19.37	33.38	1.09	7.06
323	2673344.092	815166.415	29-Sep-2014	26.7	19.34	33.5	2.18	6.17
324	2673342.588	820369.259	29-Sep-2014	31.1	19.35	33.5	2.07	6.16
325	2673345.121	825566.893	29-Sep-2014	33.3	19.41	33.5	2	7.36
331	2668842.924	812568.352	29-Sep-2014	24.8	19.29	33.46	2.91	7.11
332	2668848.071	817763.937	29-Sep-2014	25.9	19.32	33.5	0.2	7.18
333	2668853.002	822971.303	23-Sep-2014	18.7	19.7	33.47	1.31	7.14
334	2668845.735	828145.935	23-Sep-2014	36.69	19.58	33.48	5.32	6.9
335	2668838.535	833370.393	23-Sep-2014	27	19.66	33.47	1.41	6.9
338	2664339.322	815165.363	29-Sep-2014	26.2	19.3	33.57	1.78	7.22
339	2664348.061	820375.891	23-Sep-2014	35.11	19.56	33.53	5.43	7
340	2664313.232	825548.702	23-Sep-2014	35.01	19.54	33.52	4.65	6.95
341	2664341.797	830761.58	23-Sep-2014	36.27	19.53	33.53	3.37	7.03
345	2659836.363	817761.995	24-Sep-2014	37.9	19.4	33.56	1.94	7.21
346	2659826.733	822973.666	23-Sep-2014	34.45	19.45	33.57	1.7	7.04
349	2655330.368	809969.505	24-Sep-2014	25.51	19.42	33.55	0.76	7.17
352	2650800.51	807407.471	24-Sep-2014	21.05	19.27	33.61	1.38	7.16

2.2. Sediment Grab Sample Collection and Processing

Grab samples for chemistry analysis were collected at all of the stations using a 0.04-m² Van Veen grab sampler. Each grab was inspected for acceptability. If the grab was deemed unacceptable, it was discarded over the side of the vessel in an area that would avoid contaminating subsequent samples and the equipment was rinsed with site water. Once the grab was deemed acceptable by the Chief Scientist, the top 2 cm was transferred to a decontaminated stainless steel or glass mixing bowl and the material was homogenized using a decontaminated stainless steel or a dedicated spoon. Care was taken to avoid taking sediment which had contacted the sides of the grab to reduce potential cross contamination. Sufficient material was collected for grain size, PCB, and TOC analysis. The sample containers were then labeled and stored on ice until being transferred to the field sample custodian at the shoreside facility.

Grab samples for infauna analysis, and associated grain size, were collected concurrently with the grabs for compositing described above. The infauna grab samples were collected using a 0.04-m² Van Veen grab sampler. Triplicate grabs were taken at each station. Once the grab was deemed acceptable, a grain size sample was collected by inserting an open ended syringe through the entire depth of the grab and drawing the sediment out, thereby capturing a small sediment core representing the entire depth of the grab. This was repeated until 250 mL of sediment was

removed for the grain size sample. The remaining material was transferred to a sieving station and passed through a 0.5 mm sieve. All material remaining in the sieve was transferred to clean plastic jar, preserved with 10% formaldehyde, borax, and site water, and then labeled. Grain size samples were stored on ice until being transferred to the field sample custodian.

For both the sediment and infauna grabs, the vessel was moved slightly while on station to avoid resampling the same location. After each station was completed, the grab samplers were decontaminated with soap and water and rinsed with site water. If an oily sheen was present, the grab samplers were wiped with an acetone wipe.

3. Survey Chronology

Mobilization occurred on Friday, September 19, 2014. Supplies and equipment were transferred to the USACE field site in New Bedford Harbor, MA. The Gale Force was mobilized that day and the R/V Cynthia Lee was mobilized on the morning of September 22, 2014. Table 4 summarizes the chronology of sampling days for each survey vessel (i.e., Gale Force and Cynthia Lee). On September 29, 2014 an internal QA audit was conducted by Battelle to ensure all sampling procedures followed the procedures outlined in the QAPP (Battelle, 2014). Demobilization occurred on October 1 and 2, 2014 along with shipping of the remaining samples. Note: All times are recorded as Eastern Daylight Time.

Table 4. Chronology of Sampling Days

Station ID	Time of First Grab	Time of Last Grab	# of Unsuccessful Grabs	Station Comments
Cynthia Lee – September 22, 2014				
216	0914	1053	2	
220	1020	1040	1	
253	1128	1204	0	
245	1240	1306	0	
240	1321	1403	3	
235	1440	1525	8	Very soft sediment; over penetrations discarded and several pre-tripped grabs
Gale Force – September 22, 2014				
150	0813	0956	1	Spotty sheen on benthic sample collections
130	1116	1140	2	Moved station; target coordinates onshore; slight sheen
134	1208	1233	0	Slight sheen on overlying water
125	1425	1454	4	Sheen on overlying water
120	1524	1545	0	Slight sheen on overlying water
Cynthia Lee – September 23, 2014				
335	0845	0907	1	
334	0928	0953	0	
341	1022	1048	1	
340	1115	1136	0	
346	1226	1254	0	
339	1321	1353	1	

Table 4. Chronology of Sampling Days (continued)

Station ID	Time of First Grab	Time of Last Grab	# of Unsuccessful Grabs	Station Comments
333	1413	1436	0	
Gale Force – September 23, 2014				
155	0754	0825	0	At marsh edge; grabs taken ~10 feet from <i>Spartina</i> edge
135	0909	0924	0	Moved station ~15 ft west; target location in a marsh; ~10 ft from <i>Spartina</i> edge
147	1012	1029	4	
151	1110	1128	2	
202	1353	1408	6	A lot of shells; difficult to get grabs; after multiple unsuccessful grabs full of shells, relocated station by ~20 ft
140	1457	1511	3	
146	1543	1603	4	
Cynthia Lee – September 24, 2014				
352	0854	0933	5	Moved benthic reps 2 and 3 and chemistry grab ~50 ft southeast of target; lots of rocks on target
349	1003	1022	0	
345	1050	1122	4	
318	1154	1223	11	
311	1315	1339	4	
306	1407	1433	0	Duplicate chemistry grab at 1440
Gale Force – September 25, 2014				
105	0819	0834	0	Slight sheen on overlying water
109	0906	0921	0	Slight sheen on overlying water of grabs
115	0955	1012	0	Sheen on water surface, sheen on overlying water of grab
154	1258	1330	1	
139	1411	1430	0	Chemistry duplicate collected at 1416
131	1514	1532	0	Slight sheen on overlying water of grab
Cynthia Lee – September 25, 2014				
221	0755	0823	2	Moved station 50-75 ft east of target; target was on land
249	0929	1008	5	
317	1039	1108	1	
309	1131	1158	0	
310	1257	1318	1	
304	1341	1412	2	Shell mat – mostly dead with some live limpets in each grab
250	1438	1521	6	
Gale Force – September 26, 2014				
152	0821	0837	0	Chemistry duplicate taken at 0850
138	0924	0941	0	
126	1054	1106	0	In active dredge Area L on eastern side; 2 meters from marsh
108	1150	1212	1	Sheen on overlying water of grabs
111	1336	1351	0	Slight sheen on overlying water of grabs
114	1432	1448	0	

Table 4. Chronology of Sampling Days (continued)

Station ID	Time of First Grab	Time of Last Grab	# of Unsuccessful Grabs	Station Comments
117	1517	1531	0	Sheen on overlying water of grabs
Cynthia Lee – September 26, 2014				
247	0723	0757	4	
242	0818	0845	2	Chemistry duplicate at 0856
241	0929	0958	1	
237	1035	1129	13	Lots of rocks, shells and quahogs; moved station ~50 ft west
236	1215	1249	4	
231	1320	1350	0	Elevated turbidity likely from dredging ~200 ft west of target; all benthic samples contained very little material
230	1412	1433	0	Moved station 30 ft north-northeast due to commercial fishing boats on location
Gale Force – September 29, 2014				
128	0806	0832	0	Slight sheen on overlying water of grabs
123	0906	0926	1	Slight sheen on overlying water of grabs
121	1001	1016	0	
218	1247	1414	23	Two grabs collected for the chemistry samples
208	1439	1501	1	
207	1526	1551	2	Sheen on overlying water of grabs
Cynthia Lee – September 29, 2014				
332	0809	0829	0	
338	0852	0918	1	
331	0937	1003	0	
323	1028	1052	0	
324	1114	1142	1	
325	1207	1235	0	
222	1504	1520	2	
224	1544	1600	0	Moved station ~20 ft east/southeast of target; commercial fishing boats docked on station
Cynthia Lee – September 30, 2014				
225	0744	0808	0	
226	0834	0902	0	
227	0944	1020	6	
217	1134	1152	1	
212	1224	1254	0	
151	1240	1240	0	Chemistry grab retaken due to low sample volume during first attempt
211	1325	1351	2	
204	1417	1445	1	Very variable bottom; 25.3 ft at the center of the station; YSI cast done at a bottom depth of 15.4 ft
Gale Force – September 30, 2014				
155	0806	0806	0	Chemistry Grab Retake due to low sample volume on first attempt
151	1009	1009	0	Chemistry grab retaken due to low sample volume during first attempt

4. Survey Results

Composite sediment samples, triplicate infauna samples, and in situ sensor data were collected at 79 stations. In addition, four stations (139, 152, 242, and 306) were sampled for duplicate PCB and TOC samples. A single grab was collected and subsampled (top 10 cm collected) for EPA at 20 stations. At Station 212, a second grab was needed to provide sufficient volume for the 2-liter EPA sample due to the high abundance of large quahogs. Sampling was completed in 7 days for the field effort, plus 2 days of mobilization and demobilization for a total of 9 days. A summary of the stations sampled are presented in Table 4.

A total of 719 samples were collected from the sediment grabs collected at the 79 LTM stations. Sediment characteristics varied depending on collection location. The sediments in the Upper and Lower Harbor varied from black, silty mud to sand to gravel. The sediments in the Outer Harbor consisted mostly of grey, silty mud, with occasional sandy sites or sites that consisted primarily of shells.

5. Problems Experienced, Actions Taken, and Recommendations

5.1. Logistical

The QAPP called for each vessel to perform navigation checks at the beginning and end of each survey day at a known location. This turned out to be infeasible for the Cynthia Lee. The vessel-mounted dGPS could not be easily removed and verified against known points. Rather, a handheld dGPS was compared to the vessel-mounted dGPS.

5.2. Technical

Two stations in Area 1 were resampled due to low sample volume during the first attempt. Seven stations were moved from the target location due to poor sampling conditions (i.e., rocks, or shells present in high quantity) or because the target coordinates were on land. Two stations were moved due to the presence of a commercial fishing boat located on the target coordinates. The specific stations are noted above in the survey chronology (Table 4).

At the field duplicate stations, samples were inadvertently collected for grain size although this was not required according to the QAPP. The duplicate samples for other grain size were discarded in the appropriate waste stream at the New Bedford Harbor Superfund field site. Although there is no impact on the survey data, this deviation is explained here because field logs show the collection of these samples.

6. References

Battelle. 2014. *New Bedford Harbor Long Term Monitoring VI Quality Assurance Project Plan*. September.

United States Environmental Protection Agency (EPA). 1998. Administrative Record Index, OU 01 Upper and Lower Harbor, Record of Decision (ROD), September 25.

Attachment A
Field Data Sheets

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	105	Date(mm/dd/yy)	09/25/14
Water depth (ft.)	5.2	Number of Unsuccessful Grabs	0
Weather: Overcast, SKES			
Sampling Staff: PDS/AOM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
2.0	19.2	29.7	2.7	5.2

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 30% 4oz 30% GLASS ¾ FULL 4°C	Chem NBH14-0153 (HT)	41.67636	70.91513

Time: 0819

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0154 (HT)	41.67636	70.91513

Penetration(cm): 8.5 Time: 0826

Number of Benthic bottles: 1

Surface biology: None

Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0155 (HT)	41.67636	70.91513

Penetration(cm): 9 Time: 0830

Number of Benthic bottles: 1

Surface biology: Amphipods

Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0156 (HT)	41.67636	70.91513

Penetration(cm): 9 Time: 0834

Number of Benthic bottles: 1

Surface biology: None

Volume of PSD sample (ml): 250

Station Comments:	Slight Sheen on overlying water
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	108	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	3.7	Number of Unsuccessful Grabs	1
Weather: Sunny, 10-15Kts			
Sampling Staff: PDS/SAG/JMW			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.53	18.9	29.3	2.8	5.6

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{PDS x 5y-14} GLASS ¾ FULL 4°C	Chem NBH14-0228 (HT)	41.67500	70.91620

Time: 1150

Surface biology: Snail

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP1 NBH14-0229 (HT)	41.67501	70.91618

Penetration(cm): 9 Time: 1159 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP2 NBH14-0230 (HT)	41.67502	70.91618

Penetration(cm): 9 Time: 1206 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP3 NBH14-0231 (HT)	41.67501	70.91618

Penetration(cm): 9 Time: 1212 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:	Sheen on overlaying water		
	of grabs, EPA grab collected at 1228		
	41.67502, 70.91618		
Completed By:	PDS		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	109	Date(mm/dd/yy)	09/25/14
Water depth (ft.)	5.6	Number of Unsuccessful Grabs	0
Weather: Overcast, < 5Kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
2.3	19.1	20.929.7	1.8	5.6

Pos 25-sep-14

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB_{PDS} 4oz 807 GLASS ¾ FULL 4°C	Sample ID Chem NBH14-0157 (HT)	Latitude 41.67496	Longitude 70.91405
--	---	--	---	-----------------------------	------------------------------

Time: 0906

Surface biology: Snails

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID Rep 1 NBH14-0158 (HT)	Latitude 41.67496	Longitude 70.91405
---	--	--	-----------------------------	------------------------------

Penetration(cm): 9 Time: 0911 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID Rep 2 NBH14-0159 (HT)	Latitude 41.67496	Longitude 70.91405
---	--	--	-----------------------------	------------------------------

Penetration(cm): 8 Time: 0916 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID Rep 3 NBH14-0160 (HT)	Latitude 41.67496	Longitude 70.91405
---	--	--	-----------------------------	------------------------------

Penetration(cm): 8 Time: 09:21 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:	Slight sheen on overlying water of grabs
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	111	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	6.6	Number of Unsuccessful Grabs	0
Weather: Sunny, 15-20 Kts			
Sampling Staff: PDS/JMW/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
3.3	19.8	29.9	2.4	6.5

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	Chem NBH14-0211 (HT)	41.67361	70.91514

Time: 1336

Surface biology: worm, amphipod tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0212 (HT)	41.67359	70.91515

Penetration(cm): 9 Time: 1340 Number of Benthic bottles: 1

Surface biology: Amphipod Tubes, clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0213 (HT)	41.67361	70.91515

Penetration(cm): 9 Time: 1346 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0214 (HT)	41.67361	70.91515

Penetration(cm): 9 Time: 1351 Number of Benthic bottles: 1

Surface biology: worm Volume of PSD sample (ml): 250

Station Comments:	slight sheen on overlaying water of Chem grab; slight sheen on Rep1, Rep2, Rep3		
Completed By:	PDS		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	114	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	5.2	Number of Unsuccessful Grabs	0
Weather: Sunny, 10-15 Kts			
Sampling Staff: PDS/JMW/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
2.1	19.7	29.6	3.2	7.2

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 3oz GLASS ¾ FULL 4°C	Chem NBH14-0207 (HT)	41.67224	70.91621

Time: 1432

Surface biology: amphipod tubes, clams, ulva

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0208 (HT)	41.67225	70.91618

Penetration(cm): 9 Time: 1438 Number of Benthic bottles: 1

Surface biology: tubes, clams Volume of PSD sample (ml): 250

Amphipod

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0209 (HT)	41.67226	70.91618

Penetration(cm): 9 Time: 1443 Number of Benthic bottles: 1

Surface biology: Amphipod tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0210 (HT)	41.67226	70.91618

Penetration(cm): 9 Time: 1448 Number of Benthic bottles: 1

Surface biology: amphipod tubes Volume of PSD sample (ml): 250

Station Comments:	EPA Sampled collected @ 1453, 41.67225, 70.91620 PDS 26-Sep-14		
Completed By:	PDS		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	115	Date(mm/dd/yy)	09/25/14
Water depth (ft.)	3.4	Number of Unsuccessful Grabs	0
Weather: Overcast, 55kt			
Sampling Staff: SAG/ADM/PDS			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.3	18.9	29.7	1.6	5.0

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 80% GLASS ¾ FULL 4°C	chem NBH14-0161 (HT)	41.67223	70.91411

Time: 0955

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0162 (HT)	41.67223	70.91412

Penetration(cm): 9 Time: 0958 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0163 (HT)	41.67223	70.91413

Penetration(cm): None Time: 1004 Number of Benthic bottles: 1

Surface biology: 9 Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0164 (HT)	41.67222	70.91413

Penetration(cm): 9 Time: 10:12 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:	Sheen on water surface, Sheen on overlaying water of grab
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	117	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	2.8	Number of Unsuccessful Grabs	0
Weather: Sunny, 10-15 KTS			
Sampling Staff: PDS/JMW/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.53	19.8	29.4	2.9	7.4

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ⁸⁰⁵⁻²⁶⁻⁵⁴¹ GLASS ¾ FULL 4°C	NBH14-0203 (HT) Chem	41.67129	70.91741

Time: 1517

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0204 (HT) Rep 1	41.67129	70.91737

Penetration(cm): 8 Time: 1521 Number of Benthic bottles: 2

Surface biology: seaweed, amphipod Volume of PSD sample (ml): 250

snails, tunicates

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0205 (HT) Rep 2	41.67130	70.91737

Penetration(cm): 9 Time: 1526 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0206 (HT) Rep 3	41.67132	70.91737

Penetration(cm): 9 Time: 1531 Number of Benthic bottles: 1

Surface biology: snails Volume of PSD sample (ml): 250

Station Comments:	Sheen on overlying water of grabs
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	120	Date(mm/dd/yy)	09/22/14
Water depth (ft.)	3.0	Number of Unsuccessful Grabs	
Weather:	Sunny, 15-20 kts		
Sampling Staff:	PDS/SAG/JMW		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
1.08	21.16	30.46	3.82	6.57

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 4oz GLASS ¾ FULL 4°C	NBH14-0001 (PM)	41.6691	70.9186

Time: 1524

Surface biology: Snails, clams

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0002 (PM)		

Penetration(cm): 9 Time: 1530 Number of Benthic bottles: 2

Surface biology: Snails, clams Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0003 (PM)		

Penetration(cm): 8.5 Time: 1538 Number of Benthic bottles: 2

Surface biology: Snails, clams Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0004 (PM)		

Penetration(cm): 8.5 Time: 1545 Number of Benthic bottles: 2

Surface biology: Snails, clams Volume of PSD sample (ml): 240

Station Comments:	Slight shear on overlying water
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	121	Date(mm/dd/yy)	09/29/14
Water depth (ft.)	4.9	Number of Unsuccessful Grabs	0
Weather: Overcast, <5 Kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
2.0	20.5	30.2	5.2	5.4

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS GLASS ¾ FULL 4°C	Chem NBH14-0253 (HT)	41.66903	70.91643

Time: **1001**
 Surface biology: **Clams**

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0254 (HT)	41.66901	70.91642

Penetration(cm): **9** Time: **1008** Number of Benthic bottles: **1**
 Surface biology: **Clams** Volume of PSD sample (ml): **250**

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0255 (HT)	41.66901	70.91642

Penetration(cm): **9** Time: **1009** Number of Benthic bottles: **1**
 Surface biology: **Clams** Volume of PSD sample (ml): **250**

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0256 (HT)	41.66901	70.91642

Penetration(cm): **9** Time: **10:16** Number of Benthic bottles: **1**
 Surface biology: **Clams** Volume of PSD sample (ml): **250**

Station Comments:

Completed By: **PDS**

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	123	Date(mm/dd/yy)	09/29/14
Water depth (ft.)	5.8	Number of Unsuccessful Grabs	1
Weather: Overcast, <5Kt			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
2.8	20.5	30.3	5.2	5.6

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	Chem NBH14-0249 (HT)	41.66815	70.91732

Time: 0906

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0250 (HT)	41.66815	70.91729

Penetration(cm): 8.5 Time: 0914 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0251 (HT)	41.66813	70.91729

Penetration(cm): 9 Time: 0926 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0252 (HT)	41.66813	70.91728

Penetration(cm): 9 Time: 0926 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

Station Comments: EPA Sample collected @ 41.66814, 70.91730, 0943, slight sheen on overlaying water of Grabs
 Grab 2 Benthos Rep 2 spilled, grab taken again
 Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	125	Date(mm/dd/yy)	09/22/14
Water depth (ft.)	8.6	Number of Unsuccessful Grabs	4
Weather: Sunny, 15-kts			
Sampling Staff: JMW/SAG/PDS			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
5.07	20.95	30.47	4.14	6.29

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 8oz jar GLASS ¾ FULL 4°C	NBH14-0005 (Am)	41.6668	70.9184

Time: 2:25 pm

Surface biology: mud snails, clams, small worm tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0006 (Am)		

Penetration(cm): 9 Time: 2:32 pm Number of Benthic bottles: 1

Surface biology: mud snails, clams, worm tubes Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0007 (Am)		

Penetration(cm): 9 Time: 1:41 Number of Benthic bottles: 1

Surface biology: Clams, small worm tubes Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0008 (Am)		

Penetration(cm): 8.5 Time: 1:54 Number of Benthic bottles: 1

Surface biology: clams, snails, worm tubes Volume of PSD sample (ml): 240

Station Comments:	Sheen on overlying water		
Completed By:	PDS		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	126	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	2.7	Number of Unsuccessful Grabs	0
Weather:	Sunny, 10-15 KTS		
Sampling Staff:	PDS/SAG/MW		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.52	18.8	30.3	7.7	5.4

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{PDS Sep-14} GLASS ¾ FULL 4°C	Chem NBH14-0224 (HT)	41.66674	70.91627

Time: 1054

Surface biology: ~~None~~ clams, snails, amphipod tubes

PDS 26 Sep-14

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP 1 NBH14-0225 (HT)	41.66676	70.91628

Penetration(cm): 9 Time: 1058 Number of Benthic bottles: 1

Surface biology: snails, clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP 2 NBH14-0226 (HT)	41.66675	70.91628

Penetration(cm): 9 Time: 1103 Number of Benthic bottles: 2

Surface biology: snails, clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP 3 NBH14-0227 (HT)	41.66676	70.91628

Penetration(cm): 9 Time: 1106 Number of Benthic bottles: 2

Surface biology: snails, clams Volume of PSD sample (ml): 250

Station Comments: In active dredge area L on eastern side, 2 meters from marsh

Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	128	Date(mm/dd/yy)	09/29/14
Water depth (ft.)	9.8	Number of Unsuccessful Grabs	0
Weather: Sunny, < 5 Kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
6.8	20.4	30.6	4.9	5.3

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	Chem NBH14-0245 (HT)	41.66539	70.91734

Time: 0806

Surface biology: clams

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep 1 NBH14-0246 (HT)	41.66539	70.91730

Penetration(cm): 9 Time: 0813 Number of Benthic bottles: 1

Surface biology: clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep 2 NBH14-0247 (HT)	41.66539	70.91730

Penetration(cm): 8 Time: 0823 Number of Benthic bottles: 1

Surface biology: clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep 3 NBH14-0248 (HT)	41.66539	70.91730

Penetration(cm): 8.5 Time: 0832 Number of Benthic bottles: 1

Surface biology: clams Volume of PSD sample (ml): 250

Station Comments:	Slight sheen on overlaying water of grabs
EPA Sample collected 0840, 41.66540, 70.91730	
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	130	Date(mm/dd/yy)	09/22/14
Water depth (ft.)	6.5	Number of Unsuccessful Grabs	2
Weather: Sunny, 15-20Kts			
Sampling Staff: PDS/SAG/JMW			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
3.88	20.67	30.57	2.49	5.42

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 4oz GLASS ¾ FULL 4°C	NBH14-0009 (RM)	41.6641	70.9183

Time: 1116

Surface biology: mud snails

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0010 (RM)		

Penetration(cm): 9 Time: 1125 Number of Benthic bottles: 1

Surface biology: mud snails Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0011 (RM)		

Penetration(cm): 9 Time: 1132 Number of Benthic bottles: 1

Surface biology: mud snails Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0012 (RM)		

Penetration(cm): 8 Time: 1140 Number of Benthic bottles: 1

Surface biology: mud snails Volume of PSD sample (ml): 240

Station Comments: moved station because
coordinates provided are onshore
Slight Sheen
Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	131	Date(mm/dd/yy)	09/25/14
Water depth (ft.)	4.9	Number of Unsuccessful Grabs	0
Weather: overcast, 5-10Kts			
Sampling Staff: ADM/PDS/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
1.9	19.0	30.1	3.9	5.9

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB, PDS	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	chem NBH14-0173 (HT)	41.66398	70.91628

Time: 1514

Surface biology: Clams, worms

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Repl NBH14-0174 (HT)	41.66397	70.91628

Penetration(cm): 9 Time: 1520 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP2 NBH14-0175 (HT)	41.66397	70.91628

Penetration(cm): 9 Time: 1528 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP3 NBH14-0176 (HT)	41.66398	70.91627

Penetration(cm): 9 Time: 1532 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

Station Comments:	seen on overlaying water of grab		
Completed By:	PDS		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	131	Date(mm/dd/yy)	09/30/14
Water depth (ft.)	7.8	Number of Unsuccessful Grabs	0
Weather: Drizzle, 45KTS			
Sampling Staff: JMW/PDS			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C			

Time: _____

Surface biology: _____

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): _____

Time: _____

Number of Benthic bottles: _____

Surface biology: _____

Volume of PSD sample (ml): _____

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): _____

Time: _____

Number of Benthic bottles: _____

Surface biology: _____

Volume of PSD sample (ml): _____

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): _____

Time: _____

Number of Benthic bottles: _____

Surface biology: _____

Volume of PSD sample (ml): _____

Station Comments:	EPA sample collected @
	41.66401, 70.91631; 0927
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	134	Date(mm/dd/yy)	09/22/14
Water depth (ft.)	7.3	Number of Unsuccessful Grabs	
Weather: Sunny, 15-20 KTS			
Sampling Staff: PDS/SAG/JMW			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
4.63	20.81	30.30	2.87	7.54

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	2oz ^{SMT 9/22/14} GLASS ¾ FULL 4°C	NBH14-0013 (AM)	41.6627	70.9174

Time: 1208

Surface biology: Clams, Snails

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0014 (AM)		

Penetration(cm): 9 Time: 1215 Number of Benthic bottles: 1

Surface biology: Clams, Snails Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0015 (AM)		

Penetration(cm): 9 Time: 1227 Number of Benthic bottles: 1

Surface biology: Clams, Snails Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0016 (AM)		

Penetration(cm): 9 Time: 1233 Number of Benthic bottles: 1

Surface biology: Clams, Snail Volume of PSD sample (ml): 240

Station Comments:	slight sheen in overlying water
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	135	Date(mm/dd/yy)	09/23/14
Water depth (ft.)	1.9	Number of Unsuccessful Grabs	0
Weather: Sunny, <5Kts			
Sampling Staff: PDS/ADM, SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.2	18.4	30.2	2.0	6.2

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0065 (ADM)	41.6630	70.9153

Time: 0909

Surface biology: Snail, ulva

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0066 (ADM)		

Penetration(cm): 0912⁹ Time: 0912 Number of Benthic bottles: 1

Surface biology: Snails Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0067 (ADM)		

Penetration(cm): 8.5 Time: 0917 Number of Benthic bottles: 1

Surface biology: Hermit crab, snail Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0068 (ADM)		

Penetration(cm): 9 cm Time: 09:24 Number of Benthic bottles: 1

Surface biology: Snails Volume of PSD sample (ml): 250

Station Comments:	moved station ~15# West, coordinates provided were in the marsh, approximately 10 ft from spartina edge
Completed By:	

① PDS 23-Sept-14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	138	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	6.3	Number of Unsuccessful Grabs	0
Weather: Sunny, 10-15kts			
Sampling Staff: PDS/JMW/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
3.0	18.7	30.5	3.0	5.5

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 26-Sept-14 GLASS ¾ FULL 4°C	NBH14-0220 (HT) Chem	41.66129	70.92053

Time: 0924

Surface biology: ulva

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0221 (HT) rep1	41.66129	70.92053

Penetration(cm): 9 Time: 0929 Number of Benthic bottles: 1

Surface biology: snails, ulva Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0222 (HT) rep2	41.66129	70.92053

Penetration(cm): 9 Time: 0936 Number of Benthic bottles: 1

Surface biology: snails, amphipods, tubers Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0223 (HT) rep3	41.66129	70.92053

Penetration(cm): 9 Time: 0941 Number of Benthic bottles: 1

Surface biology: snail, ulva, amphipod tubers Volume of PSD sample (ml): 250

Station Comments: EPA sampled @ 0950; 41.66129, 70.92053

Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	139	Date(mm/dd/yy)	09/25/14
Water depth (ft.)	2.9	Number of Unsuccessful Grabs	0
Weather: Drizzle, 5-10Kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.1	18.9	29.7	20.1	6.0

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 802 GLASS ¾ FULL 4°C	Chem NBH14-0169 (HT)	41.66129	70.91843

Time: 1411

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP1 NBH14-0170 (HT)	41.66129	70.91843

Penetration(cm): 9 Time: 1420 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	REP2 NBH14-0171 (HT)	41.66127	70.91844

Penetration(cm): 9 Time: 1422 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep 3 NBH14-0172 (HT)	41.66129	70.91842

Penetration(cm): 9 Time: 1430 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:	① Dup collected @ 1416 NBH14-0232 41.66129, 70.91843		
	EPA Sample collected @ 14:32 41.66127 70.91845		
Completed By:	PDS		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	140	Date(mm/dd/yy)	09/23/14
Water depth (ft.)	6.4	Number of Unsuccessful Grabs	3
Weather: Sunny, 5-10Kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
3.4	20.6	30.2	8.2	7.5

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0049 (Am)	41.6613	PDS 23 Sep-14 70.9163

Time: 1457

Surface biology: Clams

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0050 (Am)		

Penetration(cm): 9 Time: 1502 Number of Benthic bottles: 1

Surface biology: Clams, snails Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0051 (Am)		

Penetration(cm): 9 Time: 1406-1506 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0052 (Am)		

Penetration(cm): 9 Time: 1511 Number of Benthic bottles: 1

Surface biology: Clams Volume of PSD sample (ml): 250

Station Comments:

Completed By: PDS

① PDS 23-Sep-14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	146	Date(mm/dd/yy)	09/23/14
Water depth (ft.)	9.0	Number of Unsuccessful Grabs	4
Weather: Sunny, 15-20KES			
Sampling Staff: ADM/PDS/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
61	20.1	30.4	7.4	5.6

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0045 (AM)	41.65991	70.91737

Time: 1543

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0046 (AM)		

Penetration(cm): 9 Time: 1546 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0047 (AM)		

Penetration(cm): 9 Time: 1600 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0048 (AM)		

Penetration(cm): 8.5 Time: 1603 Number of Benthic bottles: 2x (AM) 9/24

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:	EPA sample collected at 1609
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	147	Date(mm/dd/yy)	09/23/14
Water depth (ft.)	4.5	Number of Unsuccessful Grabs	4
Weather: sunny, < 5 Kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
1.5	19.6	30.7	2.7	5.7

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0061 (PDS)	41.6599	70.9153

Time: 1012

Surface biology: snails, ulva

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0062 (PDS)		

Penetration(cm): 9 Time: 1016 Number of Benthic bottles: 1

Surface biology: snails Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0063 (PDS)		

Penetration(cm): 9 Time: 1023 Number of Benthic bottles: 1

Surface biology: snails Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0064 (PDS)		

Penetration(cm): 8 Time: 1029 Number of Benthic bottles: 1

Surface biology: snails Volume of PSD sample (ml): 250

Station Comments:
Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	150	Date(mm/dd/yy)	09/22/14
Water depth (ft.)	10	Number of Unsuccessful Grabs	1
Weather: Sunny, <5 Kt			
Sampling Staff: PDS/JMW/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
2.3 ⁰⁰⁵ 2.3 7.44	20.35	30.56	2.57	5.24

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 3oz GLASS ¾ FULL 4°C	NBH14-0017 (Am)	41.65854	70.91849

Time: 0813

Surface biology: perwinkle snails, clams

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0018 (Am)		

Penetration(cm): 9 Time: 08280 Number of Benthic bottles: 2

Surface biology: clams, Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0019 (Am)		

Penetration(cm): 9 Time: 08390 Number of Benthic bottles: 1

Surface biology: clams Volume of PSD sample (ml): 240

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0020 (Am)		

Penetration(cm): 9 Time: 0956 Number of Benthic bottles: 1

Surface biology: clams Volume of PSD sample (ml): 240

Station Comments:	Spotty sheen on benthic sample collections
	Benthic Grab 1-0928, Benthic Grab 2-0939
Completed By:	PDS

① PDS 22-Sep-14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	151	Date(mm/dd/yy)	09/23/14
Water depth (ft.)	5.3	Number of Unsuccessful Grabs	2
Weather: Sunny, <5kts			
Sampling Staff: ADM/PDS/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
2.3	19.6	30.4	6.2	6.1

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB 4oz GLASS ¾ FULL 4°C	Sample ID NBH14-0057 (Am)	Latitude 41.6585	Longitude 70.9163
--	---	---	--	----------------------------	-----------------------------

Time: 1110
 Surface biology: None
 Resampled on 9/25/2014; This sample was not submitted for analysis. (Am) 9/26/2014

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0058 (Am)	Latitude	Longitude
---	--	-------------------------------------	-----------------	------------------

Penetration(cm): 8 Time: 1114 Number of Benthic bottles: 1
 Surface biology: None Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0059 (Am)	Latitude	Longitude
---	--	-------------------------------------	-----------------	------------------

Penetration(cm): 8.5 Time: 1120 Number of Benthic bottles: 0 + 2 = 2 bottles (Am) 9/24
 Surface biology: None Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0060 (Am)	Latitude	Longitude
---	--	-------------------------------------	-----------------	------------------

Penetration(cm): 9 Time: 1128 Number of Benthic bottles: 1 (Am) 9/24
 Surface biology: Shrimp, snail, hermit crab, Fish Volume of PSD sample (ml): 250

Station Comments: EPA Sample collected @ 1132
Completed By: PDS

① PDS 23-Sep-14 A-46

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	151	Date(mm/dd/yy)	09/25/14
Water depth (ft.)	2.0	Number of Unsuccessful Grabs	0
Weather: drizzle			
Sampling Staff: ADM/PDS/ISAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	chem NBH14-0057	41.65850	70.91637

Time: 1240 (15) Sample discarded and recollected on 30-Sep-14

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

Station Comments:	Redo of Chem Grab
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	151	Date(mm/dd/yy)	09/30/14
Water depth (ft.)	6.2	Number of Unsuccessful Grabs	0
Weather:	Rain, 5-10KTS		
Sampling Staff:	PDS/JMW		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 802 GLASS ¾ FULL 4°C	Chem	41.65850	70.91636

Time: 1009

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

Station Comments:	Chemistry sample retake
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	152	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	5.7	Number of Unsuccessful Grabs	0
Weather: Sunny, 10-15Kts			
Sampling Staff: PDS/SAG/JMW			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
1.83	18.5	30.40	2.96	5.57

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 8oz GLASS ¾ FULL 4°C	NBH14-0215 (HT) Chem	41.65848	70.91423

Time: 0821

Surface biology: Clams, mud snails, amphipods, ulva

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0216 (HT)	41.65848	70.91423

Penetration(cm): 9 Time: 0826 Number of Benthic bottles: 1

Surface biology: amphipod tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0217 (HT)	41.65848	70.91423

Penetration(cm): 9 Time: 0833 Number of Benthic bottles: 1

Surface biology: Clams, ulva, shrimp Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0218 (HT)	41.65848	70.91423

Penetration(cm): 9 Time: 0837 Number of Benthic bottles: 2

Surface biology: Clams, ulva Volume of PSD sample (ml): 250

Station Comments:	EPA Sampled Collected @ 0841
	41.65848, 70.91423, snails, clams,
	amphipod tubes, 9cm
Completed By:	PDS

Dup Collected @ 0859 41.65848, 70.91423 — NBH14-0219
Clams, ulva

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	154	Date(mm/dd/yy)	09/25/14
Water depth (ft.)	16.4	Number of Unsuccessful Grabs	1
Weather: Raining, < 5Kts			
Sampling Staff: ADM/PDS/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
12.8	18.9	30.5	3.3	5.4

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{185 25 31 44} 302 GLASS ¾ FULL 4°C	chem NBH14-0165 (HT)	41.65712	70.91742

Time: 1258

Surface biology: Quahogs

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	rep1 NBH14-0166 (HT)	41.65712	70.91742

Penetration(cm): 9 Time: 1313 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	rep2 NBH14-0167 (HT)	41.65712	70.91742

Penetration(cm): 8 Time: 1318 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	rep3 NBH14-0168 (HT)	41.65715	70.91742

Penetration(cm): 8cm Time: 1330 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:

Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	155	Date(mm/dd/yy)	09/23/14
Water depth (ft.)	2.3	Number of Unsuccessful Grabs	0
Weather: Sunny, <5Kts			
Sampling Staff: ADM/PDS/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.1	17.9	30.1	2.3	5.6

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0069 (PM) 41.6571 PDS 23-Sep-14	41.6571 70.9153 PDS 23-Sep-14	70.9153

Time: 754

Surface biology: Clams, snails (1)

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0070 (PM)		

Penetration(cm): 8.5 Time: 0801 Number of Benthic bottles: 2

Surface biology: Clams, snails Volume of PSD sample (ml): ~~250~~ 250

PDS 22-Sep-14

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0071 (PM)		

Penetration(cm): 9 Time: 0812 Number of Benthic bottles: 2 ~~25~~ PDS 23-Sep-14

Surface biology: Snails, ulva Volume of PSD sample (ml): 250

PDS 23-Sep-14

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0072 (PM)		

Penetration(cm): 8.5 Time: 0825 Number of Benthic bottles: 2

Surface biology: Snails, ulva Volume of PSD sample (ml): 250

Station Comments:	At marsh edge. Grabs Taken ~10' from Spartina edge
Completed By:	PDS

(1) Chemistry sample discarded & recollected on 26-Sep-14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	155	Date(mm/dd/yy)	09/26/14
Water depth (ft.)	2.5	Number of Unsuccessful Grabs	
Weather: Sunny, 10-15 Kts			
Sampling Staff: JMW/PDS/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	Chem	41.65718	70.91531

Time: 0806 ①

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample			

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

Station Comments:	Chemistry Retake
	① Chemistry sample discarded + recollected on 30-Sep-14
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	155	Date(mm/dd/yy)	09/30/14
Water depth (ft.)	3.0	Number of Unsuccessful Grabs	0
Weather:	Rain, 5-10KTS		
Sampling Staff:	PDS/JMW		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	^{304P-14} 4oz 080z PCB PDS GLASS ¾ FULL 4°C	Sample ID Chem	Latitude 41.65715	Longitude 70.91532
--	---	---	------------------------------	---------------------------------	----------------------------------

Time: 1025

Surface biology: None

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude

Penetration(cm): Time: Number of Benthic bottles:

Surface biology: Volume of PSD sample (ml):

Station Comments:	Chemistry Grab Retake
Completed By:	PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	202	Date(mm/dd/yy)	09/23/14
Water depth (ft.)	14.9	Number of Unsuccessful Grabs	6
Weather: Sunny, 5-10kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
11.8	19.8	30.52	4.3	5.6

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0053 (AM)	41.6553 ^①	70.9171 ^①

Time: 1353 41.65535 70.91702

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0054 (AM)		

Penetration(cm): 8.5 Time: 1458^① Number of Benthic bottles: 2

Surface biology: None 1358^① Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0055 (AM)		

Penetration(cm): 8.5 Time: 1404 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0056 (AM)		

Penetration(cm): 8 Time: 1408 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

Station Comments: A Lot of Shells, difficult to get grabs

① After multiple unsuccessful grabs full of shells, relocated station by ~20'

Completed By:

EB
① JMT 9/25/14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	204	Date(mm/dd/yy)	9/30/14
Water depth (ft.)	0 15.4 25.3	Number of Unsuccessful Grabs	1
Weather:	Rain, NE wind ~10 kts, calm seas		
Sampling Staff:	M. Fitzpatrick P. Curran		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
13.20	19.72	32.97	6.02	5.97

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB 4oz ^{mer} GLASS ¾ FULL 4°C	Sample ID NBH14-0326	Latitude 41.652629	Longitude 70.919260
--	---	---	--------------------------------	------------------------------	-------------------------------

Time: 1436

Surface biology: seed clams worm tubes

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0327	Latitude 41.652622	Longitude 70.919232
---	--	--------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.0 Time: 1417 Number of Benthic bottles: 1

Surface biology: seed clams, worm tubes Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0328	Latitude 41.652631	Longitude 70.919250
---	--	--------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.0 Time: 1425 Number of Benthic bottles: 1

Surface biology: seed clams worm tubes Volume of PSD sample (ml): 250

minor sheen

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0329	Latitude 41.652632	Longitude 70.919234
---	--	--------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.5 Time: 1445 Number of Benthic bottles: 2

Surface biology: seed clams, tubes Volume of PSD sample (ml): 250

Station Comments:

① very variable bottom

25.3' at the center of the station. YSI cast done while at a bottom depth of 15.4'

Completed By:

[Signature]

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	207	Date(mm/dd/yy)	09/29/14
Water depth (ft.)	3.2	Number of Unsuccessful Grabs	2
Weather: <u>Overcast, <5Kts</u>			
Sampling Staff: <u>PDS/ADM/SAG</u>			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.3	20.5	30.8	11.1	6.7

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz-6703 4oz-6703 GLASS ¾ FULL 4°C	Chem NBH14-0265 (HT)	41.64992	70.92138

Time: 1526

Surface biology: None pos 29-Sep-14 Worms

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0266 (HT)	41.64992	70.92138

Penetration(cm): 8.5 Time: 1530 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0267 (HT)	41.64991	70.92139

Penetration(cm): 9 Time: 1534 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0268 (HT) 1551 1851-105-14	41.64991	70.92139

Penetration(cm): 9 Time: 1541 Number of Benthic bottles: 2

Surface biology: Hermit Crab Volume of PSD sample (ml): 250

Station Comments: <u>Sheen on overlaying water of grab; EPA Sample collected 41.64991, 70.92139</u>
<u>1541</u>
Completed By: <u>PDS</u>

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	208	Date(mm/dd/yy)	09/29/14
Water depth (ft.)	3.8	Number of Unsuccessful Grabs	1
Weather: Sunny, < 5 Kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
0.7	20.4	30.9	2.7	6.8

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB _{sp5}	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 8oz GLASS ¾ FULL 4°C	Chem NBH14-0261 (HT)	41.64991	70.91720

Time: 1439

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0262 (HT)	41.64989	70.91723

Penetration(cm): 9 Time: 1450 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0263 (HT)	41.64993	70.91720

Penetration(cm): 9 Time: 1454 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0264 (HT)	41.64993	70.91720

Penetration(cm): 8 Time: 1501 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:

Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	211	Date(mm/dd/yy)	9/30/14
Water depth (ft.)	12.9	Number of Unsuccessful Grabs	2
Weather: Rain, NE wind ~10 KTS			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
10.67	19.76	33.11	2.61	6.28

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB <i>met</i> 4oz <i>9/30/14</i> GLASS ¾ FULL 4°C	Sample ID NBH14-0322	Latitude 41.647170	Longitude 70.919280
--	---	---	--------------------------------	------------------------------	-------------------------------

Time: 1344

Surface biology: Seed clams tubes sheen l quohog

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0323	Latitude 41.647171	Longitude 70.919280
---	--	--------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.5 Time: 1325 Number of Benthic bottles: 1

Surface biology: seed clams, tubes, sheen Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0324	Latitude 41.647169	Longitude 70.919275
---	--	--------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.5 Time: 1333 Number of Benthic bottles: 1

Surface biology: Seed clams, tubes sheen Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0325	Latitude 41.647164	Longitude 70.919279
---	--	--------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.3 Time: 1351 Number of Benthic bottles: 1

Surface biology: seed clams sheen Volume of PSD sample (ml): 250

Station Comments:
Completed By: <i>M. Fitzpatrick</i>

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	212	Date(mm/dd/yy)	9/30/14
Water depth (ft.)	10.8	Number of Unsuccessful Grabs	0
Weather: Overcast NE wind 5-10 kts calm seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
8.01	19.72	33.03	3.96	6.10

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB ^{max}	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz 9/30/14 GLASS ¾ FULL 4°C	NBH14-0318 (HT)	41.647139	70.915068

Time: 1241

Surface biology: amphipods clams tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0319 (HT)	41.647141	70.915062

Penetration(cm): 9.5 Time: 1224 Number of Benthic bottles: 1

Surface biology: ~~quahogs~~ Amphipods, Clam Shells, Tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0320 (HT)	41.647141	70.915065

Penetration(cm): 9.2 Time: 1232 Number of Benthic bottles: 2

Surface biology: sm. clams amphipods Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0321 (HT)	41.647134	70.915077

Penetration(cm): 8.7 Time: 1254 Number of Benthic bottles: 1

Surface biology: amphipods Volume of PSD sample (ml): 250

Station Comments:

EPA sample - use 2 grabs - 1 st grab had 4 lg Quahogs				
① grab 1:	12:47	41.647139 / 70.915066	9.0m	not enough material
② grab 2:	13:00	41.647140 / 70.915070		pen-8.5
Completed By: <i>M. Fitzpatrick</i>				

① both grabs contained quahogs, amphipods

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	216	Date(mm/dd/yy)	09/22/2014
Water depth (ft.)	10.4	Number of Unsuccessful Grabs	2
Weather: SW 10 Kts, Partly Cloudy, 30% clouds, SEAS < 0.5 FT			
Sampling Staff: MATT FITZPATRICK, PATRICK COWAN			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
9.41	20.29	32.9	1.16	5.83

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 4oz GLASS ¾ FULL 4°C	216 REP 1 ^{9/22} 9/22/14 (E) NBH14-0025 (AM)	41.644431	70.917182

Time: 9:37

Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	216 REP 2 (E) NBH14-0026 (AM)	41.644417	70.9171803

Penetration(cm): 9 Time: 9:14 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	216 REP 2 (D) NBH14-0027 (AM)	41.644409	70.917142

Penetration(cm): 9.5 Time: 9:26 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	216 REP 3 (F) NBH14-0028 (AM)	41.644437	70.917162

Penetration(cm): 9.5 Time: 9:43 Number of Benthic bottles: 1

Surface biology: Salps Volume of PSD sample (ml): 250

Station Comments:
Completed By:

09/28
JMT
9/23/14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	217	Date(mm/dd/yy)	9/30/14
Water depth (ft.)	12.1	Number of Unsuccessful Grabs	1
Weather: overcast, NE wind 5-10 kts, calm seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
9.2	19.57	32.99	3.25	5.89

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz GLASS ¾ FULL 4°C	NBH14-0314 (HT)	41.644400	70.912990

Time: 1147

Surface biology: a few sm. tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0315 (HT)	41.644404	70.912979

Penetration(cm): 8.5 Time: 1134

Number of Benthic bottles: 1

Surface biology: sm. tubes

Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0316 (HT)	41.6443915	70.912994

Penetration(cm): 8.0 Time: 1140

Number of Benthic bottles: 1

Surface biology: sm tubes

Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0317 (HT)	41.644394	70.912993

Penetration(cm): 9.0 Time: 1152

Number of Benthic bottles: 1

Surface biology: Quohog tubes macroalgae

Volume of PSD sample (ml): 250

Station Comments:

Completed By:

Math R Bz

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	218	Date(mm/dd/yy)	09/29/14
Water depth (ft.)	3.5	Number of Unsuccessful Grabs	23
Weather: overcast, < 5 kts			
Sampling Staff: PDS/ADM/SAG			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
.5	20.6	30.9	2.5	6.6

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	^{PDS} 4oz ^{3oz} 3oz GLASS ¾ FULL 4°C	Chem NBH14-0257 (HT)	41.64437	70.90881

Time: 1247

Surface biology: snails, clams, amphipod tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep1 NBH14-0258 (HT)	41.64433	70.90885

Penetration(cm): 8 Time: 1302 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep2 NBH14-0259 (HT)	41.64420	70.90885

Penetration(cm): 8.5 Time: 1402 Number of Benthic bottles: 2

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Rep3 NBH14-0260 (HT)	41.64420	70.90885

Penetration(cm): 8 Time: 2:05^{PM} 9/29/14 Number of Benthic bottles: 3

Surface biology: None Volume of PSD sample (ml): 250

Station Comments: Two grabs collected for Chemistry
Completed By: PDS

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	220	Date(mm/dd/yy)	09/22/2014
Water depth (ft.)	34.0	Number of Unsuccessful Grabs	1
Weather: SW 15-20 kts, Sunny, 20% cloud cover, Seas < 0.5 ft (~6 inches)			
Sampling Staff: MATT FITZPATRICK, PATRICK COERAN			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
31.45	20.30	33.14	3.72	5.73

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 8oz GLASS ¾ FULL 4°C	NBH14-0029 (AM)	41.641697	70.919300

Time: 1040

Surface biology: shells

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	220 REP 1 70.919327 NBH14-0030 (AM)	41.641710	

Penetration(cm): 9.0 Time: 1020 Number of Benthic bottles: 2

Surface biology: shells quahog Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	220 REP 2 70.919338 NBH14-0031 (AM)	41.641714	

Penetration(cm): 9.5 Time: 1029 Number of Benthic bottles: 2

Surface biology: worm tubes, shells, quahog Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	220 REP 3 70.919312 NBH14-0032 (AM)	41.641723	70.919312

Penetration(cm): 9.5 Time: 1053 Number of Benthic bottles: 2

Surface biology: worm tubes shells Volume of PSD sample (ml): 250

Station Comments:

Completed By: M. Fitzpatrick

① 3/8
9/23/14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	221	Date(mm/dd/yy)	09/25/2014
Water depth (ft.)	7.1	Number of Unsuccessful Grabs	2
Weather: ENE 5Kts, 100% clouds, Overcast, Seas < 0.5 ft			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
6.8	19.03	32.99	3.12	5.6

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB ^{MF} 4oz 9/24/14 GLASS ¾ FULL 4°C	Sample ID (c) chem NBH-0125 (HT)	Latitude 41.641671	Longitude 70.914899
--	---	---	---	------------------------------	-------------------------------

Time: 0815

Surface biology: a few sm. worm tubes

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (A) rep 1 NBH14-0126 (HT)	Latitude 41.641665	Longitude 70.914892
---	--	--	------------------------------	-------------------------------

Penetration(cm): 7.9 Time: 0755 Number of Benthic bottles: 2

Surface biology: 1 mud crab Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (B) rep 2 NBH14-0127 (HT)	Latitude 41.641652	Longitude 70.914891
---	--	--	------------------------------	-------------------------------

Penetration(cm): 8.1 Time: 0803 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (D) rep 3 NBH14-0128 (HT)	Latitude 41.646719	Longitude 70.914899
---	--	--	------------------------------	-------------------------------

Penetration(cm): 8.0 Time: 0823 Number of Benthic bottles: 1

Surface biology: a few sm. worm tubes Volume of PSD sample (ml): 250

Station Comments: Move station 50-75' East of target (on land)

Completed By: P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	221	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	6.0	Number of Unsuccessful Grabs	6
Weather: Overcast, SW wind ~ 5 kts, calm seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)

Sample Type / Handling

EPA Tox

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS	Quart size	4oz			
3/4 FULL	Ziploc	GLASS		41.641675	70.914883
4°C	4°C	3/4 FULL			
		4°C			

Time: 1445

Surface biology: slipper limpet on rocks

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size	Variable bottle size			
Ziploc	90% FULL			
4°C	10% conc. Formalin (37%)			
	1tbs borax/liter of sample			

Penetration(cm):

Time:

Number of Benthic bottles:

Surface biology:

Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size	Variable bottle size			
Ziploc	90% FULL			
4°C	10% conc. Formalin (37%)			
	1tbs borax/liter of sample			

Penetration(cm):

Time:

Number of Benthic bottles:

Surface biology:

Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size	Variable bottle size			
Ziploc	90% FULL			
4°C	10% conc. Formalin (37%)			
	1tbs borax/liter of sample			

Penetration(cm):

Time:

Number of Benthic bottles:

Surface biology:

Volume of PSD sample (ml):

Station Comments:

Repeat station to collect EPA Tox only

Completed By:

M. Fitzpatrick

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	222	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	11.6	Number of Unsuccessful Grabs	# 2
Weather: Overcast, SW wind ~5 kts, calm seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
9.1	20.02	33.06	6.20	5.61

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{mrf} GLASS ¾ FULL 4°C	NBH14-0237 (HT)	41.641662 41.646	70.910921

Time: 1514
Surface biology: Shell hash

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0238 (HT)	41.6416	70.910897

Penetration(cm): 8.5 Time: 1504 Number of Benthic bottles: 2
Surface biology: Shell hash Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0239 (HT)	41.641659	70.919161

Penetration(cm): 9.0 Time: 1509 Number of Benthic bottles: 2
Surface biology: Shell hash minor shell Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0240 (HT)	41.641671	70.910913

Penetration(cm): 9.0 Time: 1520 Number of Benthic bottles: 2
Surface biology: Shell hash Volume of PSD sample (ml): 250

Station Comments:

Completed By: *Matthew R. Bl...*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	224	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	33.0	Number of Unsuccessful Grabs	0
Weather: Overcast, SW wind ~ 5 kts, Calm seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
29.7	19.63	33.13	4.89	5.59

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8oz mpf 9/29/14 GLASS ¾ FULL 4°C	NBH14-0241 (HT)	41.638976	70.921412

Time: 1554

Surface biology: heavy sheen

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0242 (HT)	41.638982	70.921413

Penetration(cm): 9.5 Time: 1544 Number of Benthic bottles: 1

Surface biology: Sheen observed on surface Volume of PSD sample (ml): 250

No biology

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0243 (HT)	41.638972	70.921407

Penetration(cm): 9.5 Time: 1548 Number of Benthic bottles: 1

Surface biology: 1 spider crab w/ tunicates on him heavy sheen Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0244 (HT)	41.638975	70.921411

Penetration(cm): 9.5 Time: 1600 Number of Benthic bottles: 1

Surface biology: heavy sheen Volume of PSD sample (ml): 250

Station Comments:

Move station ~ 20' ESE of target Comm. Fishing boats docked on station

Completed By: Math R JZ

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	225	Date(mm/dd/yy)	9/30/14
Water depth (ft.)	32.7	Number of Unsuccessful Grabs	0
Weather: Overcast, drizzle, NE wind ~ 10 kts, calm seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
28.16	19.84	33.25	1.50	6.88

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0302 (HT)	41.638958	70.917248

Time: 0800

Surface biology: 1 small fish shells

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0303 (HT)	41.638954	70.917229

Penetration(cm): 8.5 Time: 744 Number of Benthic bottles: 2

Surface biology: shells, sponges on shells Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0304 (HT)	41.638967	70.917250

Penetration(cm): 8.0 Time: 0753 Number of Benthic bottles: 3

Surface biology: shells, Quohogs Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0305 (HT)	41.638957	70.917246

Penetration(cm): 8.4 Time: 0808 Number of Benthic bottles: 2

Surface biology: shells, sponges on shells Volume of PSD sample (ml): 250

Station Comments:

Completed By: *M. Fitzpatrick*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	226	Date(mm/dd/yy)	9/30/14
Water depth (ft.)	9.2	Number of Unsuccessful Grabs	9.2 ^{WCMRF}
Weather: drizzle, NE wind ~ 5-10 kts, calm seas			
Sampling Staff: m. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
7.60	19.67	33.05	2.92	6.18

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{mrf} GLASS ¾ FULL 4°C	NBH14-0306 (HT)	41.638931	70.913055

Time: 0902

Surface biology: amphipod tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0307 (HT)	41.638930	70.913042

Penetration(cm): 7.5 Time: 0834 Number of Benthic bottles: 1

Surface biology: Amphipod tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0308 (HT)	41.638933	70.913034

Penetration(cm): 9.7 Time: 0844 Number of Benthic bottles: 1

Surface biology: Amphipod tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0309 (HT)	41.638932	70.913039

Penetration(cm): 9.5 Time: 0847-0855 Number of Benthic bottles: 1

Surface biology: Amphipod tubes Volume of PSD sample (ml): 250

Station Comments:	EPA tox @ 0855 41.638938 / 70.913021		
Completed By:	<i>M. Fitzpatrick</i>		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	227	Date(mm/dd/yy)	9/30/14
Water depth (ft.)	7.8	Number of Unsuccessful Grabs	0
Weather:	AA drizzle, NE wind 5 kts,		
Sampling Staff:	M. Fitzpatrick, P. Curran		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
5.59	19.67	33.18	0.80	6.84

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB 4oz GLASS ¾ FULL 4°C	Sample ID	Latitude	Longitude
			NBH14-0310 (HT)	41.638926	70.908787

Time: 09:59

Surface biology: Shell hash, mud crab

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0311 (HT)	41.638924	70.908788

Penetration(cm): 9.0 Time: 9:44 Number of Benthic bottles: 2

Surface biology: Tubes, shell hash, limpets Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0312 (HT)	41.638926	70.908788

Penetration(cm): 8.5 Time: 9:52 Number of Benthic bottles: 2

Surface biology: limpets, quohogs Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0313 (HT)	41.638926	70.908780

Penetration(cm): 9.0 Time: 10:20 Number of Benthic bottles: 2

Surface biology: Tubes, shell hash Volume of PSD sample (ml): 250

Station Comments:

Completed By: *Matthew R. Ryl*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	230	Date(mm/dd/yy)	9/26/14
Water depth (ft.)	25.2	Number of Unsuccessful Grabs	
Weather: Mostly sunny, NNE wind ~15kts, Seas - calm			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
22.1	18.97	33.19	8.64	5.88

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8oz ^{mpf} GLASS ¾ FULL 4°C	NBH14-0199 (HT)	41.636329	70.919423

Time: 1424

Surface biology: None minor sheen

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0200 (HT)	41.636134	70.919342

Penetration(cm): 9.3 Time: 1412 Number of Benthic bottles: 1

Surface biology: sm. tubes, shell hash Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0201 (HT)	41.636329	70.919412

Penetration(cm): 9.0 Time: 1418 Number of Benthic bottles: 1

Surface biology: sm. tubes, shell hash Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0202 (HT)	41.636325	70.919413

Penetration(cm): 9.5 Time: 1433 Number of Benthic bottles: 1

Surface biology: sm. tubes minor sheen Volume of PSD sample (ml): 250

Station Comments: 2 Quohags
Move station 30' NNE due to comm
fishing boats on location

Completed By: *M. Fitzpatrick*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	231	Date(mm/dd/yy)	9/26/14
Water depth (ft.)	27.5	Number of Unsuccessful Grabs	
Weather: mostly sunny ~10% clouds, NNE ~10-15kts, calm seas			
Sampling Staff: M. Kypatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
25.8	18.93	33.21	9.11	6.12

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 1/2oz ^{mpc} 9/26/14 GLASS ¾ FULL 4°C	NBH14-0197 (HT)	41.636193	70.915199

Time: 1338

Surface biology: NONE

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0198 (HT)	41.636193	70.915166

Penetration(cm): 9.5 Time: 1320 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

almost no material retained on sieve

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0235 (HT)	41.636192	70.9151874

Penetration(cm): 8.5 Time: 1330 Number of Benthic bottles: 1

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0236 (HT)	41.636172	70.915164

Penetration(cm): 7.5 Time: 1350 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

Station Comments:	elevated turbidity likely from dredging ~200' west of target
	all benthic samples contained very little material
Completed By:	M. Kypatrick

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	235	Date(mm/dd/yy)	9/22/14
Water depth (ft.)	26.1	Number of Unsuccessful Grabs	8
Weather: SW 15-20 kts, Sunny, 20% cloud cover, seas < 0.5 ft			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
24.72	20.41	33.19	6.62	5.97

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB 4oz 8oz GLASS ¾ FULL 4°C	Sample ID NBH14-0033 (AM)	Latitude 41.633464	Longitude 70.917316
--	---	--	-------------------------------------	------------------------------	-------------------------------

Time: 1525

Surface biology: None

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0034 (AM)	Latitude 41.633472	Longitude 70.917275
---	--	-------------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.7 Time: 1440 Number of Benthic bottles: 1 0.5L

Surface biology: None Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0035 (AM)	Latitude 41.633506	Longitude 70.917305
---	--	-------------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.5 Time: 1449 Number of Benthic bottles: 1 0.5L

Surface biology: None Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0036 (AM)	Latitude 41.633529	Longitude 70.917329
---	--	-------------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.7 Time: 1500 Number of Benthic bottles: 1 0.5L

Surface biology: None Volume of PSD sample (ml): 250

Station Comments:	EPA sample 1510 41.633473 / 70.917269		
	very soft sediment several O.R. discards / several		
	Pretripped grabs		
Completed By:	M. Fitzpatrick		

① JMT 9/23/14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	236	Date(mm/dd/yy)	09/26/2014
Water depth (ft.)	34.9 32.3	Number of Unsuccessful Grabs	4
Weather: mostly sunny calm seas, NNE ~ 15 kts			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
29.01	18.91	33.23	2.26	6.54

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB ^{max 9/26/14} 4oz GLASS ¾ FULL 4°C	Sample ID	Latitude	Longitude
			NBH14-0193 (HT)	41.633471	70.913089

Time: 1249

Surface biology: 3 Quohogs

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0194 (HT)	41.633459	70.913083

Penetration(cm): 9.0 Time: 12:15 Number of Benthic bottles: 2

Surface biology: shell waste, tubes, 1 quohog Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0195 (HT)	41.633464	70.913094

Penetration(cm): 9.5 Time: 1223 Number of Benthic bottles: 1

Surface biology: a few tubes Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0196 (HT)	41.633458	70.913036

Penetration(cm): 8.5 Time: 1238 Number of Benthic bottles: 2

Surface biology: 12 Quohogs Volume of PSD sample (ml): 250

Station Comments:
Completed By: P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	237	Date(mm/dd/yy)	09/26/2014
Water depth (ft.)	22.4	Number of Unsuccessful Grabs	13
Weather: mostly sunny, NNE wind ~ 15 kts, calm seas			
Sampling Staff: M. Fitzpatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
20.01	18.84	33.25	0.61	6.69

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz mzf 9/26/14 GLASS ¾ FULL 4°C	NBH14-0189 (HT)	41.633415	70.909140

Time: 1103

Surface biology: 6 quahogs, shell hash, rocks w/ barnacles

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0190 (HT)	41.633418	70.909109

Penetration(cm): 8.5 Time: 1035 Number of Benthic bottles: 3

Surface biology: 6 quahogs, shells Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0191 (HT)	41.633422	70.909110

Penetration(cm): 8 Time: 1045 Number of Benthic bottles: 2

Surface biology: shell hash Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0192 (HT)	41.633432	70.909101

Penetration(cm): 7.5 Time: 1129 Number of Benthic bottles: 3

Surface biology: shell hash Volume of PSD sample (ml): 250

Station Comments:	lots of rocks, shells + quahogs move station ~ 50' west		
Completed By:	P. Curran		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	240	Date(mm/dd/yy)	09/22/2014
Water depth (ft.)	32	Number of Unsuccessful Grabs	3
Weather: SW ^{20-KTS} 15KTS, Sunny, 25% clouds, seas < 0.5 ft			
Sampling Staff: M. Fitzpatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
30.70	20.45	33.16	11.84	5.99

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{8oz} GLASS ¾ FULL 4°C	240 dup NBH14-0037 (Am)	41.630753	70.915199

Time: 1403

Surface biology: NONE

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	240 rep 1 NBH14-0038 (Am)	41.630725	70.915225

Penetration(cm): 9.0 Time: 1321 Number of Benthic bottles: 1 (0.5 L Sample)

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	240 rep 2 NBH14-0039 (Am)	41.630763	70.915228

Penetration(cm): 9.0 Time: 1330 Number of Benthic bottles: 1 (0.5 L Sample)

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	240 rep 3 NBH14-0040 (Am)	41.630761	70.915197

Penetration(cm): 9.0 Time: 1338 Number of Benthic bottles: 1 (0.5 L Sample)

Surface biology: NONE Volume of PSD sample (ml): 250

Station Comments:	EPA Sample collected @ 14:14 41.630716/70.915214		
Completed By:	Patrick Curran		

① 9/22/14 mcr

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	241	Date(mm/dd/yy)	09/26/2014
Water depth (ft.)	36.6	Number of Unsuccessful Grabs	1
Weather:			
Sampling Staff: <i>MATT Fitzpatrick, Patrick Curran</i>			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
33.27	18.88	33.21	1.97	6.50

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	46z ^{M&F} 9/26/14 GLASS ¾ FULL 4°C	NBH14-0185 (HT)	41.630694	70.911012

Time: *0950*

Surface biology: *sm. tubes shell hash*

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0186 (HT)	41.630704	70.911032

Penetration(cm): *9.0* Time: *0929* Number of Benthic bottles: *1*

Surface biology: *Tubes* Volume of PSD sample (ml): *250*

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0187 (HT)	41.630730	70.911026

Penetration(cm): *9.5* Time: *0939* Number of Benthic bottles: *1*

Surface biology: *a few sm. tubes* Volume of PSD sample (ml): *250*

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0188 (HT)	41.630725	70.911027

Penetration(cm): *9.0* Time: *0958* Number of Benthic bottles: *1*

Surface biology: *sm. tubes shells* Volume of PSD sample (ml): *250*

Station Comments:
Completed By: <i>P. Curran</i>

*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	242	Date(mm/dd/yy)	09/26/2014
Water depth (ft.)	20.4	Number of Unsuccessful Grabs	2
Weather: Partly cloudy - clearing, NE wind 15-20,			
Sampling Staff: M. Fitzpatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
18.01	8.87	33.22	2.11	6.57

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB 4oz ^{mef} 9/26/14 GLASS ¾ FULL 4°C	Sample ID NBH14-0181 (HT)	Latitude ^{w/mef 9/26/14} 41.630706 41.630704	Longitude 70.906805
--	---	--	-------------------------------------	--	-------------------------------

Time: 08:19 (w/mef) 9/26/14 08:36
 Surface biology: amphipod tubes, 1 quohog

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0182 (HT)	Latitude 41.630706	Longitude 70.906814
---	--	-------------------------------------	------------------------------	-------------------------------

Penetration(cm): 8.5 Time: 08:18 Number of Benthic bottles: 1
 Surface biology: sm tubes Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0183 (HT)	Latitude 41.630686	Longitude 70.906786
---	--	-------------------------------------	------------------------------	-------------------------------

Penetration(cm): 8.9 Time: 08:27 Number of Benthic bottles: 1
 Surface biology: amphipod tubes Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID NBH14-0184 (HT)	Latitude 41.630705	Longitude 70.906821
---	--	-------------------------------------	------------------------------	-------------------------------

Penetration(cm): 9.5 Time: 08:45 Number of Benthic bottles: 1
 Surface biology: amphipod tubes, 1 quohog Volume of PSD sample (ml): 250

Station Comments: Chem Dup: 08:56 41.630709 / 70.906793 - NBH14-0233
 Pen: 8.5 cm amphipod tubes
 Completed By: P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	245	Date(mm/dd/yy)	09/22/2014
Water depth (ft.)	10.0	Number of Unsuccessful Grabs	
Weather: SW 15 Kts Sunny 25% cloud cover			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
8.4	20.50	33.17	6.06	6.01

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 800 GLASS ¾ FULL 4°C	245 chm NBH14-0041 (AM)	41.628017	70.913117

Time: 13:06

Surface biology: none

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	245 rep1 NBH14-0042 (AM)	41.628016	70.913117

Penetration(cm): 9.5 Time: 12:40 Number of Benthic bottles: 1

Surface biology: Quahogs Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	245 Rep 2 NBH14-0043 (AM)	41.628004	70.913134

Penetration(cm): 6.75 Time: 12:46 Number of Benthic bottles: 1

Surface biology: Quahogs Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	245 rep 3 NBH14-0044 (AM)	41.628017	70.913117

Penetration(cm): Time: 12:53 Number of Benthic bottles: 1

Surface biology: Quahogs Volume of PSD sample (ml): 250

Station Comments:

Completed By:

① SMT 9/23/14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	247	Date(mm/dd/yy)	09/26/2014
Water depth (ft.)	11.2	Number of Unsuccessful Grabs	4
Weather: <i>mostly cloudy NE ~ 20 kts calm seas</i>			
Sampling Staff: <i>P. Curran M. Fitzpatrick</i>			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
9.05	18.92	33.19	1.85	6.43

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz <i>met</i> GLASS ¾ FULL 4°C	(C) <i>can</i> NBH14-0177 (HT)	41.627962	70.904748

Time: *07:39*

Surface biology:

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(A) <i>repl</i> NBH14-0178 (HT)	41.627966	70.904713

Penetration(cm): *7.0* Time: *07:23* Number of Benthic bottles: *1*

Surface biology: *amphipod tubes* Volume of PSD sample (ml): *250*

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(B) <i>rep 2</i> NBH14-0179 (HT)	41.627979	70.904732

Penetration(cm): *9.0* Time: *07:31* Number of Benthic bottles: *1*

Surface biology: *amphipod tubes* Volume of PSD sample (ml): *250*

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(E) NBH14-0180 (HT)	41.627956	70.904737

Penetration(cm): *9.5* Time: *07:57* Number of Benthic bottles: *1*

Surface biology: *Amphipod tubes, Macro Algae* Volume of PSD sample (ml): *250*

Station Comments:

EPA TOX (07:45) 41.627967, 70.904753 pen: 9.0

↳ amphipod tubes, 1 quahog

Completed By: *P. Curran*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	249	Date(mm/dd/yy)	09/25/2014
Water depth (ft.)	9.1	Number of Unsuccessful Grabs	5
Weather: ENE Skts, 100% clouds, overcast, seas < 0.5 ft			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
8.51	19.17	33.21	8.13	6.23

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz met 9/25/14 GLASS ¾ FULL 4°C	(c) chem NBH14-0129 (HT)	41.625269	70.911059

Time: 0949

Surface biology: 3 Quahogs, Empty Slipper Limpets

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(A) rep1 NBH14-0130 (HT)	41.625264	70.911060

Penetration(cm): 9.0 Time: 0929 Number of Benthic bottles: 2

Surface biology: Quahogs, Macro Algae, Shell Hash Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(B) rep2 NBH14-0131 (HT)	41.625257	70.911074

Penetration(cm): 7.0 Time: 0937 Number of Benthic bottles: 1

Surface biology: shell hash Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(D) rep 3 NBH14-0132 (HT)	41.625272	70.911042

Penetration(cm): 6.9 Time: 1008 Number of Benthic bottles: 1

Surface biology: Shell hash, Macro Algae Volume of PSD sample (ml): 250

Station Comments:

Completed By: P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	250	Date(mm/dd/yy)	9/25/14
Water depth (ft.)	31.3	Number of Unsuccessful Grabs	0
Weather: heavy overcast, NE 10-15, calm seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
30.45	19.18	33.26	0.75	6.70

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz MRF 9/25/14 GLASS ¾ FULL 4°C	NBH14-0149 (HT)	41.625226	70.906861

Time: 1456

Surface biology: Shell hash, Large hard clam (1)

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0150 (HT)	41.625230	70.906890

Penetration(cm): 8.0 Time: 1438 Number of Benthic bottles: 3

Surface biology: Jingle shells, Slipper shells, sponges Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0151 (HT)	41.625226 WLMRF 9/5/14	70.906860

Penetration(cm): ~~9.0~~ 9.0 Time: 1513 Number of Benthic bottles: 3

Surface biology: ~~Shell hash, large hard clam (1)~~ PBL 9/25/14 PBL 9/25/14 Volume of PSD sample (ml): 250

Shell hash, Jingle shells/Crepidula (dead mostly), sponge

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0152 (HT)	41.625268	70.906832

Penetration(cm): 9.2 Time: 1521 Number of Benthic bottles: 3 (Am) 9/26/14

Surface biology: Shell hash, quohog sponge Volume of PSD sample (ml): 250

Station Comments:
Completed By: P. CURRAN

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	253	Date(mm/dd/yy)	09/22/2014
Water depth (ft.)	30.90	Number of Unsuccessful Grabs	
Weather: ^{SW} 15 Kts, SUNNY, 25% cloud cover, seas < 0.5 ft			
Sampling Staff: ^{POC 9/22/14} Matt Fitzpatrick, Patrick Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
24.39	20.29	31.70	11.17	5.65

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0021 (AM)	41.622557	70.913175

Time: 1136
Surface biology: None

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0022 (AM)	41.622542	70.913169

Penetration(cm): 9.5 Time: 1128 Number of Benthic bottles: 1
Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0023 (AM)	41.622536	70.913195

Penetration(cm): 10 Time: 1149 Number of Benthic bottles: 1
Surface biology: None overpenetrated but acceptable Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0024 (AM)	41.622525	70.913201

Penetration(cm): 9.5 Time: 1204 Number of Benthic bottles: 1
Surface biology: None Volume of PSD sample (ml): 250

Station Comments:	Highly variable bottom topography due to dredging activity
Completed By:	M. Fitzpatrick

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	304	Date(mm/dd/yy)	9/25/14
Water depth (ft.)	10.1	Number of Unsuccessful Grabs	2
Weather:	Rain, NE ~ 10-15 kts, Seas ~ 0.5'		
Sampling Staff:	M. Fitzpatrick P. Curran		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
8.74	18.94	33.28	0.42	7.06

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{MRF} GLASS ¾ FULL 4°C	NBH14-0145 (HT)	41.619299	70.908901

Time: 1403

Surface biology: Slipper shells, Jingle shells, Oyster shells, macro algae
drill snail

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0146 (HT)	41.619300	70.908997

Penetration(cm): 7.4 Time: 1341 Number of Benthic bottles: 2

Surface biology: Jingle shells, Slipper shells (dead/live) Volume of PSD sample (ml): 250

Macro Algae

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0147 (HT)	41.619288	70.909004

Penetration(cm): 6.5 Time: 1354 Number of Benthic bottles: 2

Surface biology: limpets (mostly dead), Jingle shells Volume of PSD sample (ml): 250

Macro Algae

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0148 (HT)	41.619239	70.909002

Penetration(cm): 9.2 Time: 1412 Number of Benthic bottles: 2

Surface biology: Macro Algae, Jingle shells, Slipper shells Volume of PSD sample (ml): 250

(mostly dead)

Station Comments: Shell mat - mostly dead w/ some live limpets in each grab

Completed By: P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	306 <small>psd 9/24/14</small>	Date(mm/dd/yy)	09/24/2014
Water depth (ft.)	7.5 7.5	Number of Unsuccessful Grabs	
Weather: ENE 10KTS SEAS 0.5 ft Cloudy, 90% clouds			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
7.34	19.55	33.45	0.79	8.43

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0121 (HT)	41.619084	70.871007

Time: 9.1-pm 1424

Surface biology: 1 worm tube

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0122 (HT)	41.619094	70.870930

Penetration(cm): 10.0 Time: 1407 Number of Benthic bottles:

Surface biology: None Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0123 (HT)	41.619103	70.870939

Penetration(cm): 9.2 Time: 1414 Number of Benthic bottles:

Surface biology: 2 sm worm tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0124 (HT)	41.619070	70.870958

Penetration(cm): 7.8 Time: 1433 Number of Benthic bottles:

Surface biology: eel grass 2 sm worm tubes Volume of PSD sample (ml): 250

Station Comments:	Duplicate Chem grab - 1440 2 sm. worm tubes		
	41.619082 / 70.870962 - NBH14-0234		
Completed By:	Pcurran		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	309	Date(mm/dd/yy)	09/25/2014
Water depth (ft.)	16.5	Number of Unsuccessful Grabs	
Weather: Rain NE 10kts O'seas (sheltered)			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
16.0	19.09	33.46	0.53	6.92

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 1/2oz GLASS ¾ FULL 4°C	NBH14-0137 (HT)	41.606977	70.918626

1148

Time: 11:32 (Time estimated based on benthic rep 1 because not recorded) (AM) 9/26/14
 Surface biology: limpet shells - dead sm. tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0138 (HT)	41.606993	70.918634

Penetration(cm): 8.7 Time: 1131 Number of Benthic bottles: 1
 Surface biology: limpets (live) Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0139 (HT) ② 1138	41.606996	70.918626

Penetration(cm): 8.8 Time: 11:35 Number of Benthic bottles: 1
 Surface biology: limpets macro algae Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0140 (HT) ② 1158	41.606984	70.918645

Penetration(cm): 9.0 Time: 11:34 Number of Benthic bottles: 1
 Surface biology: Slipper shell, limpet (dead), worn tubes (2) Volume of PSD sample (ml): 250

Station Comments:
 ① Times estimated based on time of benthic grab 1 because not recorded during sampling. (AM) 9/26/2014
 Completed By: P. Curran

② correct times were pulled from Hypack software, MRF 10/7/14

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	310	Date(mm/dd/yy)	9/25/14
Water depth (ft.)	18.2	Number of Unsuccessful Grabs	1
Weather:	Rain NE ~ 10 kts ~ 1.0' seas		
Sampling Staff:	M. Fitzpatrick P. Curran		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
17.42	19.05	33.31	4.67	7.09

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB 4oz GLASS ¾ FULL 4°C	Sample ID	Latitude	Longitude
			NBH14-0141 (HT)	41.606884	70.899631

Time: 12:58

Surface biology: dead limpets macroalgae

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0142 (HT)	41.606894	70.899583

Penetration(cm): 7.0 Time: 12:51 Number of Benthic bottles: 1

Surface biology: Macro Algae, (2) dead crepidula Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0143 (HT)	41.606878	70.899597

Penetration(cm): 6.9 Time: 13:12 Number of Benthic bottles: 1

Surface biology: Crepidula (dead/live), Macro Algae Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0144 (HT)	41.606886	70.899613

Penetration(cm): 8.1 Time: 13:18 Number of Benthic bottles: 1

Surface biology: Crepidula dead/live macroalgae Volume of PSD sample (ml): 250

Station Comments:

Completed By: *M. Fitzpatrick*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	311	Date(mm/dd/yy)	09/24/2014
Water depth (ft.)	14.9	Number of Unsuccessful Grabs	4
Weather: Overcast 15 kts ENE 15-20 kts ~1' seas			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
14.52	19.50	33.39	1.17	7.34

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB 4oz ^{9/24/14} GLASS ¾ FULL 4°C	Sample ID	Latitude	Longitude
			NBH14-0117 (HT)	41.606790	70.880587

Time: 1315

Surface biology: worm casings, shell hash, limpet shells

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0118 (HT)	41.60680	70.880567

Penetration(cm): 7.2 Time: 1322 Number of Benthic bottles: 2

Surface biology: Shell Hash, Limpets Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0119 (HT)	41.60679	70.880568

Penetration(cm): 8.3 Time: 1333 Number of Benthic bottles: 2

Surface biology: Shell hash, Limpets Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID	Latitude	Longitude
		NBH14-0120 (HT)	41.606807	70.880600

Penetration(cm): 9.2 Time: 1339 Number of Benthic bottles: 2

Surface biology: worm tubes, shell hash Volume of PSD sample (ml): 250

Station Comments:

Completed By:

P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	317	Date(mm/dd/yy)	09/25/2014
Water depth (ft.)	31.5	Number of Unsuccessful Grabs	1
Weather: ENE ~10kts 100% cloud cover seas 0.5-1.0'			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
29.4	19.43	33.44	1.49	7.15

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz ^{mef} _{9/25/14} GLASS ¾ FULL 4°C	NBH14-0133 (HT)	41.594465	70.890204

Time: 11:00

Surface biology: shell hash

250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0134 (HT)	41.594482	HT 70.890199

Penetration(cm): 10.0 Time: 10:39

Number of Benthic bottles: 1

Surface biology: None

Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0135 (HT)	41.594464	70.890225

Penetration(cm): 9.0 Time: 10:47

Number of Benthic bottles: 1

Surface biology: None

Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0136 (HT)	41.594485	70.890215

Penetration(cm): 9.0 Time: 11:08

Number of Benthic bottles: 1

Surface biology: shell hash

Volume of PSD sample (ml): 250

Station Comments:

ERA Sample 41.594454, 70.890253 (12:36) Pen depth: 8.8

↳ forgot to collect on 1st visit to station

Completed By: P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	318	Date(mm/dd/yy)	09/24/2014
Water depth (ft.)	19.1	Number of Unsuccessful Grabs	11
Weather: mostly cloudy ENE 15-20 seas ~1'			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
17.9	19.37	33.38	1.09	7.06

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	(B) cum NBH14-0113 (HT)	41.594350	70.871226

Time: 12:10

Surface biology: Shell Hash

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(A) rep 1 NBH14-0114 (HT)	41.594338	70.871226

Penetration(cm): 7.5 Time: 11:54 Number of Benthic bottles: 2

Surface biology: limpets macro algae Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(C) rep 2 NBH14-0115 (HT)	41.594358	70.871174

Penetration(cm): 9.5 Time: 12:18 Number of Benthic bottles: 3

Surface biology: Shell Hash, Broken limpets Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(D) rep 3 NBH14-0116 (HT)	41.594364	70.871233

Penetration(cm): 9.5 Time: 12:23 Number of Benthic bottles: 2

Surface biology: shell hash Volume of PSD sample (ml): 250

Station Comments:
Completed By: P. CURRAN

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	323	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	28.0	Number of Unsuccessful Grabs	0
Weather: Overcast SW ~ 5 kts, Seas 0.5'			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
26.7	19.34	33.50	2.18	6.17

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0281 (HT)	41.582262	70.918848

Time: 10:45

Surface biology: macro algae

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0282 (HT)	41.582259	70.918849

Penetration(cm): 8.5 Time: 10:28 Number of Benthic bottles: 1

Surface biology: Tubes Macro algae Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0283 (HT)	41.582262	70.918829

Penetration(cm): 9.0 Time: 10:37 Number of Benthic bottles: 1

Surface biology: macro algae Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0284 (HT)	41.582262 55	70.918842

Penetration(cm): 8.5 Time: 10:52 Number of Benthic bottles: 1

Surface biology: macro algae fragments Algae (Abs 9/29/14) Volume of PSD sample (ml): 250

Station Comments:

Completed By: *M. Fitzpatrick*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	324	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	33.7	Number of Unsuccessful Grabs	1
Weather: overcast SW wind ~5kts, 0.5' seas			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
31.1	19.35	33.50	2.07	6.16

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0285 (HT)	41.582159	70.899832

Time: 1129

Surface biology: shell hash macro algae

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0286 (HT)	41.582174	70.8998419

Penetration(cm): 8.7 Time: 1114 Number of Benthic bottles: 1

Surface biology: shell hash, Macro Algae Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0287 (HT)	41.582166	70.899841

Penetration(cm): 8.5 Time: 1120 Number of Benthic bottles: 1

Surface biology: cockle clam, shell hash, macro algae, Barnacles on limpet shell Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0288 (HT)	41.582178	70.899804

Penetration(cm): 8.5 Time: 1142 Number of Benthic bottles: 1

Surface biology: Macro Algae, shell hash Volume of PSD sample (ml): 250

Station Comments:

Completed By: *M. Fitzpatrick*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	325	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	35.6	Number of Unsuccessful Grabs	
Weather: Overcast, SW wind ~ 5-10 kts, Seas ~ 0.5'			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
33.3	19.41	33.50	2.00	7.36

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8oz ^{mg/L} GLASS ¾ FULL 4°C	NBH-0289 (HT)	41.582064	70.880835

Time: 1227

Surface biology: minor shell hash

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH-0290 (HT)	41.582061	70.880837

Penetration(cm): 8.5 Time: 1207 Number of Benthic bottles: 1

Surface biology: minor shell hash Volume of PSD sample (ml):

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH-0291 (HT)	41.582067	70.880833

Penetration(cm): 8.7 Time: 1216 Number of Benthic bottles: 1

Surface biology: minor shell hash Volume of PSD sample (ml):

a few worm tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH-0292 (HT)	41.582065	70.880820

Penetration(cm): 8.5 Time: 1235 Number of Benthic bottles: 1

Surface biology: shell hash, Tube Volume of PSD sample (ml):

Station Comments:	EPA Tox - pen: 8.5cm minor shell hash @ 1223 41.582045 / 70.880822		
Completed By:			

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	331	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	26.4	Number of Unsuccessful Grabs	0
Weather: Overcast SW wind ~ 5 kts seas ~ 0.5'			
Sampling Staff: M. Fitzpatrick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
24.8	19.29	33.46	2.91	7.11

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{met} GLASS ¾ FULL 4°C	NBH14-0277 (HT)	41.569958	70.928454

Time: 09:52

Surface biology: tubes small stone w/ barnacles

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0278 (HT)	41.569959	70.928465

Penetration(cm): 8.9 Time: 09:37 Number of Benthic bottles: 1

Surface biology: Macro algae, worm tubes (2) Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0279 (HT)	41.569954	70.928448

Penetration(cm): 8.5 Time: 09:44 Number of Benthic bottles: 1

Surface biology: worm tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0280 (HT)	41.569965	70.928466

Penetration(cm): 8.7 Time: 10:03 Number of Benthic bottles: 1

Surface biology: Shell Hash, Macro Algae, Tubes Volume of PSD sample (ml): 250

Station Comments:

Completed By: *Matthew R. Rye*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	332	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	27.7	Number of Unsuccessful Grabs	0
Weather:	mostly cloudy, SW wind ~5-10 seas ~1'		
Sampling Staff:	M. Fitzpatrick P. Curran		

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
25.9	19.32	33.50	0.20	7.18

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz GLASS ¾ FULL 4°C	NBH14-0269 (HT)	41.569875	70.909468

Time: 8:21

Surface biology: tubes macro & algae

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0270 (HT)	41.569864	70.909468

Penetration(cm): 7.5 Time: 8:09 Number of Benthic bottles: 1

Surface biology: Tubes, Empty limpet shell, Volume of PSD sample (ml): 250

Macro Algae

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0271 (HT)	41.569898	70.909469

Penetration(cm): 7.2 Time: 8:15 Number of Benthic bottles: 1

Surface biology: tubes, limpets, Volume of PSD sample (ml): 250

1 snail

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0272 (HT)	41.569876	70.909424

Penetration(cm): tubes 7.8 Time: 8:29 Number of Benthic bottles: 1

Surface biology: tubes, limpets, Volume of PSD sample (ml): 250

macro algae

Station Comments:
Completed By: M. Fitzpatrick

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	333	Date(mm/dd/yy)	9/23/14
Water depth (ft.)	19.7	Number of Unsuccessful Grabs	0
Weather: Mostly sunny sw wind ~15 ~65°			
Sampling Staff: P. Curran M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
18.70	19.70	33.47	1.31	7.14

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz 9/23/14 MAR GLASS ¾ FULL 4°C	NBH-0073 (Am)	41.569788	70.890439

Time: 1427

Surface biology: shell hash

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH-0073 (Am) 74	41.569772	70.890429

Penetration(cm): 8.0 Time: 1413 Number of Benthic bottles: 2

Surface biology: broken limpets (shell hash) brittle star Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH-0075 (Am)	41.569758	70.890464

Penetration(cm): 9.2 Time: 1420 Number of Benthic bottles: 3

Surface biology: shell hash Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH-0076 (Am)	41.569773	70.890495

Penetration(cm): 8.7 Time: 1436 Number of Benthic bottles: 3

Surface biology: shell hash Volume of PSD sample (ml): 250

Station Comments:

Completed By: M. Fitzpatrick

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	334	Date(mm/dd/yy)	09/23/2014
Water depth (ft.)	38.6	Number of Unsuccessful Grabs	0
Weather: N 5-10Kts, Sunny, 25% cloud cover, seas < 0.5 ft			
Sampling Staff: M. Fitzpatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
36.69	19.58	33.48	5.32	6.90

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 9/23/14 MER GLASS ¾ FULL 4°C	(D) Chem NBH14-0093 (AM)	41.569665	70.871530

Time: 09:53

Surface biology: worm casings, clams, drills

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(A) rep 1 NBH14-0094 (AM)	41.569674	70.871433

Penetration(cm): 9.7 Time: 9:28 Number of Benthic bottles: 1

Surface biology: worm casings, clams, drills Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(B) rep 2 NBH14-0095 (AM)	41.569650	70.871463

Penetration(cm): 9.6 Time: 9:35 Number of Benthic bottles: 1

Surface biology: worm casings Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(C) rep 3 NBH14-0096 (AM) psc 9/23/14	41.569628	70.871472

Penetration(cm): 9.7 Time: 9:53 9:43 Number of Benthic bottles: 1

Surface biology: worm casings, clams, drills Volume of PSD sample (ml): 250

Station Comments:

Station Outside Breakwater

Completed By:

P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	335	Date(mm/dd/yy)	09/23/2014
Water depth (ft.)	29 28 <small>POC 9/23/2014</small>	Number of Unsuccessful Grabs	1
Weather: N wind 5-10 kts, Sunny, 20% cloud, seas < 0.5 ft			
Sampling Staff: M. Fitzpatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
27	19.66	33.47	1.41	6.90

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{meq} 9/23/14 GLASS ¾ FULL 4°C	(C) NBH14-0097 (AM)	41.569538	70.852439

Time: 0857

Surface biology: *Crepidula* / limpets (dead) / live

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	rep 1 (A) NBH14-0098 (AM)	41.569541	70.852429 70.852429 <small>POC 9/23/14</small>

Penetration(cm): 9.5 Time: 0845 Number of Benthic bottles: 2

Surface biology: *Crepidula* / limpets (dead) / live Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	rep 2 (B) NBH14-0099 (AM)	41.569568	70.852471

Penetration(cm): 9.5 Time: 0851 Number of Benthic bottles: 2

Surface biology: *Crepidula* / limpets (dead) / live Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	rep 3 (C) NBH14-0100 (AM)	41.569560	70.852433

Penetration(cm): 9.5 Time: 09:07 Number of Benthic bottles: 2

Surface biology: *Crepidula* / limpets (dead) / live Volume of PSD sample (ml): 250

Station Comments:

Station outside breakwater.

Completed By:

P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	338	Date(mm/dd/yy)	9/29/14
Water depth (ft.)	28.5	Number of Unsuccessful Grabs	1
Weather: mostly cloudy SW wind ~ 5 kts seas ~ 0.5'			
Sampling Staff: M. Kitepatnick P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
26.2	19.30	33.57	1.78	7.22

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz ^{max} GLASS ¾ FULL 4°C	NBH14-0273 (HT)	41.557551	70.919076

Time: 0908

Surface biology: worm tubes

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0274 (HT)	41.557534	70.919058

Penetration(cm): 10.0 Time: 0852 Number of Benthic bottles: 1

Surface biology: worm tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0275 (HT)	41.557557	70.919105

Penetration(cm): 9.2 Time: 0901 Number of Benthic bottles: 1

Surface biology: worm tubes Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0276 (HT)	41.557584	70.919105

Penetration(cm): 6.8 Time: 0918 Number of Benthic bottles: 1

Surface biology: Tubes, small amount of trash Volume of PSD sample (ml): 250

Station Comments:
Completed By: <i>M. Kitepatnick</i>

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	339	Date(mm/dd/yy)	9/23/14
Water depth (ft.)	36.3	Number of Unsuccessful Grabs	1
Weather: SW 15-20 kts, Sunny, 45% clouds, Seas 1-2 ft			
Sampling Staff: M. FitzPatrick, Patrick Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
35.11	19.56	33.53	5.43	7.00

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8oz 9/23/14 mkr GLASS ¾ FULL 4°C	NBH14-0077 (AM)	41.557476	70.900039

Time: 1339

Surface biology: a couple tubes, 1 snail

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0078 (AM)	41.557465	70.900090

Penetration(cm): 8.0 Time: 1321 Number of Benthic bottles: 1

Surface biology: Amphipod tubes, shells Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0079 (AM)	41.557426	70.900013

Penetration(cm): 8.7 Time: 1331 Number of Benthic bottles: 1

Surface biology: snail Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	NBH14-0080 (AM)	41.557443	70.900013

Penetration(cm): 9.0 Time: 1353 Number of Benthic bottles: 1

Surface biology: tubes Volume of PSD sample (ml): 250

Station Comments:

Completed By: *M. FitzPatrick*

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	340	Date(mm/dd/yy)	09/23/2014
Water depth (ft.)	37.1	Number of Unsuccessful Grabs	
Weather: N wind 3-5 kts, Sunny, 35% cloud cover seas < 0.5 ft			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
35.01	19.54	33.52	4.65	6.95

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz 9/23/14 mic GLASS ¾ FULL 4°C	(C) chem NBH14-0085 (Am)	41.557279	70.881141

Time: 11:29

Surface biology: NONE

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(A) Rep 1 NBH14-0086 (Am)	41.557306	70.881076

Penetration(cm): 8.5 Time: 11:15 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(B) Rep 2 NBH14-0087 (Am)	41.557345	70.881051

Penetration(cm): 8.0 Time: 11:22 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(D) Rep 3 NBH14-0088 (Am)	41.557352	70.881060

Penetration(cm): 7.5 Time: 11:36 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

Station Comments:

Station outside breakwater

EPA SAMPLE (11:43) 41.557317, 70.881071 (penetration = 7.75 cm)

Completed By:

P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	341	Date(mm/dd/yy)	09/23/2014
Water depth (ft.)	37.4	Number of Unsuccessful Grabs	1
Weather: N wind 5 Kts, Sunny, 25% Cloud cover, Seas 0.5 ft			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
36.27	19.53	33.53	3.37	7.03

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 4oz 9/23/14 m22 GLASS ¾ FULL 4°C	(B) chem NBH14-0089 (RM)	41.557252	70.862095

Time: 10:32

Surface biology: NONE

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(A) rep 1 NBH14-0090 (RM)	41.557226	70.862111

Penetration(cm): 7.5 Time: 10:22 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(C) rep 2 NBH14-0091 (RM)	41.557246	70.862090

Penetration(cm): 7.5 Time: 10:39 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(D) rep 3 NBH14-0092 (RM)	41.557232	70.862141

Penetration(cm): 8.5 Time: 10:48 Number of Benthic bottles: 1

Surface biology: small fish (1), Macro Algae Volume of PSD sample (ml): 250

Station Comments:

Stations outside Break-water

Completed By: P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	345	Date(mm/dd/yy)	PBC 9/24/14 09/23 09/24/2014
Water depth (ft.)	39.4	Number of Unsuccessful Grabs	4
Weather: mostly cloudy, ENE ~ 15, seas 2'			
Sampling Staff: M. Fitzpatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
37.9	19.40	33.56	1.94	7.21

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	8 1oz GLASS ¾ FULL 4°C	(D) con NBH14-0109 (HT)	41.5451043 41.545145	70.909751 70.909703

Time: 10:50 - note this time is estimated because it was not recorded in the field. (AM) 9/26/2014

Surface biology: worm tubes (sm.)

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(A) rep1 NBH14-0110 (HT)	41.5451043	70.909754

Penetration(cm): 9.0 Time: 10:50 Number of Benthic bottles: 1

Surface biology: worm tubes (sm.) Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(C) rep 2 NBH14-0111 (HT)	41.545160	70.909722

Penetration(cm): 9.5 Time: 11:01 Number of Benthic bottles: 1

Surface biology: 2 lg tubes in the bottom Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(C) rep 3 NBH14-0112 (HT)	41.545139	70.909696

Penetration(cm): 9.7 Time: 11:07 Number of Benthic bottles: 1

Surface biology: worm tubes Volume of PSD sample (ml): 250

Station Comments:	① correct time was pulled from Hypack software MRF 10/7/14		
Completed By:	P. Curran		

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	346	Date(mm/dd/yy)	09/23/2014
Water depth (ft.)	36.2	Number of Unsuccessful Grabs	0
Weather: SW 10-15 kts, Sunny, 30% cloud cover, seas 0.5-1.0 FT			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
34.45	19.45	33.57	1.70	7.04

Sample Type / Handling

Sample Collection Information

TOC	PSD	PCB	Sample ID	Latitude	Longitude
4oz GLASS ¾ FULL 4°C	Quart size Ziploc 4°C	4oz 9/23/14 MLP GLASS ¾ FULL 4°C	(A) chem NBH14-0081 (Am)	41.545018	70.890666

Time: 12:26

Surface biology: one hermit crab

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(B) rep1 NBH14-0082 (Am)	41.545026	70.890654

Penetration(cm): 8 Time: 12:37 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(C) rep2 NBH14-0083 (Am)	41.545058	70.890719

Penetration(cm): 8.5 Time: 12:45 Number of Benthic bottles: 1

Surface biology: NONE Volume of PSD sample (ml): 250

PSD	Benthic	Sample ID	Latitude	Longitude
Quart size Ziploc 4°C	Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	(D) rep3 NBH14-0084 (Am)	41.545070 9/23/14 41.545070	70.890715

Penetration(cm): 8.5 Time: 12:54 Number of Benthic bottles: 1

Surface biology: WORM TUBE (1) Volume of PSD sample (ml): 250

Station Comments:

STATION OUTSIDE OF BREAKWATER

Completed By:

P. Curran

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	349	Date(mm/dd/yy)	09/24/2014
Water depth (ft.)	26.7	Number of Unsuccessful Grabs	0
Weather: N wind 15kts, ^{mostly (see 9/24/14)} Partly Cloudy, 80% clouds, seas 1-1.5 ft			
Sampling Staff: P. Curran, M. Fitzpatrick			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
25.51	19.42	33.55	0.76	7.17

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	PCB ^{5 1/2 oz net 9/24/14} GLASS ¾ FULL 4°C	Sample ID (C) Chen NBH14-0101 (HT)	Latitude 41.532924	Longitude 70.938276
--	---	---	---	------------------------------	-------------------------------

Time: 1017

Surface biology: hermit crab sm. tubes limpet

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (A) rep 1 NBH14-0102 (HT)	Latitude 41.532951	Longitude 70.938283
---	--	--	------------------------------	-------------------------------

Penetration(cm): 7.8 Time: 10:03 Number of Benthic bottles: 1

Surface biology: hermit crab, sm. tubes Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (B) rep 2 NBH14-0103 (HT)	Latitude 41.532931	Longitude 70.938305
---	--	--	------------------------------	-------------------------------

Penetration(cm): 7.2 Time: 10:09 Number of Benthic bottles: 1

Surface biology: sm. tubes a couple limpets Volume of PSD sample (ml): 250

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (D) rep 3 NBH14-0104 (HT)	Latitude 41.532951	Longitude 70.938287
---	--	--	------------------------------	-------------------------------

Penetration(cm): 7.0 Time: 10:22 Number of Benthic bottles: 1

Surface biology: macro algae, sm. tubes
a couple amphipods limpets Volume of PSD sample (ml): 250

Station Comments:

Completed By:

P. CURRAN

SEDIMENT COLLECTION DATA SHEET – NEW BEDFORD LTM VI, 2014

Station ID	352	Date(mm/dd/yy)	09/24/2014
Water depth (ft.)	22.6	Number of Unsuccessful Grabs	5
Weather: mostly cloudy NNE wind ~10 kts ~1' seas			
Sampling Staff: M. Fitzpatrick, P. Curran			

Near Bottom YSI measurements

Depth (ft)	Temperature (C)	Salinity (PSU)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
21.05	19.27	33.61	1.38	7.16

Sample Type / Handling

Sample Collection Information

TOC 4oz GLASS ¾ FULL 4°C	PSD Quart size Ziploc 4°C	8 4oz PCB GLASS ¾ FULL 4°C <i>9/24/14 mar</i>	Sample ID (C) chem NBH14-0105 (HT)	Latitude Long 70.947740	Longitude Lat. 41.520539
--	---	--	---	---------------------------------------	------------------------------------

Time: 0918

Surface biology: limpets - some unavoidable in chem samples

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (A) rep 1 NBH14-0106 (HT)	Latitude 41.520604	Longitude 70.947913
---	--	--	------------------------------	-------------------------------

Penetration(cm): 6.0 Time: 0854 Number of Benthic bottles: 2

Surface biology: LIVE/DEAD Crepidula Volume of PSD sample (ml): 250

Chiton (inside limpet)

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (B) rep 2 NBH14-0107 (HT)	Latitude 41.520507	Longitude 70.947723
---	--	--	------------------------------	-------------------------------

Penetration(cm): 9 Time: 0912 Number of Benthic bottles: 3

Surface biology: LIVE/DEAD Crepidula Volume of PSD sample (ml): 250

mud crab brittle star

PSD Quart size Ziploc 4°C	Benthic Variable bottle size 90% FULL 10% conc. Formalin (37%) 1tbs borax/liter of sample	Sample ID (D) rep 3 NBH14-0108 (HT)	Latitude 41.520535	Longitude 70.947714
---	--	--	------------------------------	-------------------------------

Penetration(cm): 9 Time: 0933 Number of Benthic bottles: 3

Surface biology: LIVE/DEAD crepidula Volume of PSD sample (ml): 250

Station Comments:	moved reps 2+3 + chem ~50' SE of target lots of rocks on target
Completed By:	P. Curran

Attachment B
Chain of Custody Logs



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD &MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-108

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature,
9/22/2014	15:24	NBH14-0001		SED	120-14LTM			1	X				
9/22/2014	14:24	NBH14-0005		SED	125-14LTM			1	X				
9/22/2014	11:16	NBH14-0009		SED	130-14LTM			1	X				
9/22/2014	12:08	NBH14-0013		SED	134-14LTM			1	X				
9/22/2014	8:13	NBH14-0017		SED	150-14LTM			1	X				
9/22/2014	11:38	NBH14-0021		SED	253-14LTM			1	X				
9/22/2014	9:37	NBH14-0025		SED	216-14LTM			1	X				
9/22/2014	10:40	NBH14-0029		SED	220-14LTM			1	X				
9/22/2014	15:25	NBH14-0033		SED	235-14LTM			1	X				
9/22/2014	14:03	NBH14-0037		SED	240-14LTM			1	X				
9/22/2014	13:06	NBH14-0041		SED	245-14LTM			1	X				
9/23/2014	15:43	NBH14-0045		SED	146-14LTM			1	X				
9/23/2014	14:57	NBH14-0049		SED	140-14LTM			1	X				
9/23/2014	13:53	NBH14-0053		SED	202-14LTM			1	X				
9/23/2014	10:12	NBH14-0061		SED	147-14LTM			1	X				
9/23/2014	9:09	NBH14-0065		SED	135-14LTM			1	X				
9/23/2014	14:27	NBH14-0073		SED	333-14LTM			1	X				
9/23/2014	13:39	NBH14-0077		SED	339-14LTM			1	X				
9/23/2014	12:26	NBH14-0081		SED	346-14LTM			1	X				
9/23/2014	11:29	NBH14-0085		SED	340-14LTM			1	X				

Relinquished By (name/date/time):

Jessica M Tenzar 9/25/14 1500

Received By(name/date/tir

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-110

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:24	NBH14-0001		SED	120-14LTM					1	X		
9/22/2014	15:30	NBH14-0002		SED	120-14LTM					1	X		
9/22/2014	15:38	NBH14-0003		SED	120-14LTM					1	X		
9/22/2014	15:45	NBH14-0004		SED	120-14LTM					1	X		
9/22/2014	14:24	NBH14-0005		SED	125-14LTM					1	X		
9/22/2014	14:32	NBH14-0006		SED	125-14LTM					1	X		
9/22/2014	14:41	NBH14-0007		SED	125-14LTM					1	X		
9/22/2014	14:54	NBH14-0008		SED	125-14LTM					1	X		
9/22/2014	11:16	NBH14-0009		SED	130-14LTM					1	X		
9/22/2014	11:25	NBH14-0010		SED	130-14LTM					1	X		
9/22/2014	11:32	NBH14-0011		SED	130-14LTM					1	X		
9/22/2014	11:40	NBH14-0012		SED	130-14LTM					1	X		
9/22/2014	12:08	NBH14-0013		SED	134-14LTM					1	X		
9/22/2014	12:15	NBH14-0014		SED	134-14LTM					1	X		
9/22/2014	12:27	NBH14-0015		SED	134-14LTM					1	X		
9/22/2014	12:33	NBH14-0016		SED	134-14LTM					1	X		
9/22/2014	8:13	NBH14-0017		SED	150-14LTM					1	X		
9/22/2014	9:28	NBH14-0018		SED	150-14LTM					1	X		
9/22/2014	9:39	NBH14-0019		SED	150-14LTM					1	X		
9/22/2014	9:56	NBH14-0020		SED	150-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

Sanjung 9/25/14 15:00



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF


Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-111

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	11:38	NBH14-0021		SED	253-14LTM					1	X		
9/22/2014	11:28	NBH14-0022		SED	253-14LTM					1	X		
9/22/2014	11:49	NBH14-0023		SED	253-14LTM					1	X		
9/22/2014	12:04	NBH14-0024		SED	253-14LTM					1	X		
9/22/2014	9:37	NBH14-0025		SED	216-14LTM					1	X		
9/22/2014	9:14	NBH14-0026		SED	216-14LTM					1	X		
9/22/2014	9:26	NBH14-0027		SED	216-14LTM					1	X		
9/22/2014	9:43	NBH14-0028		SED	216-14LTM					1	X		
9/22/2014	10:40	NBH14-0029		SED	220-14LTM					1	X		
9/22/2014	10:20	NBH14-0030		SED	220-14LTM					1	X		
9/22/2014	10:29	NBH14-0031		SED	220-14LTM					1	X		
9/22/2014	10:53	NBH14-0032		SED	220-14LTM					1	X		
9/22/2014	15:25	NBH14-0033		SED	235-14LTM					1	X		
9/22/2014	14:40	NBH14-0034		SED	235-14LTM					1	X		
9/22/2014	14:49	NBH14-0035		SED	235-14LTM					1	X		
9/22/2014	15:00	NBH14-0036		SED	235-14LTM					1	X		
9/22/2014	14:03	NBH14-0037		SED	240-14LTM					1	X		
9/22/2014	13:21	NBH14-0038		SED	240-14LTM					1	X		
9/22/2014	13:30	NBH14-0039		SED	240-14LTM					1	X		
9/22/2014	13:38	NBH14-0040		SED	240-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

 9/25/14 1500



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-12

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	13:06	NBH14-0041		SED	245-14LTM					1	X		
9/22/2014	12:40	NBH14-0042		SED	245-14LTM					1	X		
9/22/2014	12:46	NBH14-0043		SED	245-14LTM					1	X		
9/22/2014	12:53	NBH14-0044		SED	245-14LTM					1	X		
9/23/2014	15:43	NBH14-0045		SED	146-14LTM					1	X		
9/23/2014	15:46	NBH14-0046		SED	146-14LTM					1	X		
9/23/2014	16:00	NBH14-0047		SED	146-14LTM					1	X		
9/23/2014	16:03	NBH14-0048		SED	146-14LTM					1	X		
9/23/2014	14:57	NBH14-0049		SED	140-14LTM					1	X		
9/23/2014	15:02	NBH14-0050		SED	140-14LTM					1	X		
9/23/2014	15:06	NBH14-0051		SED	140-14LTM					1	X		
9/23/2014	15:11	NBH14-0052		SED	140-14LTM					1	X		
9/23/2014	13:53	NBH14-0053		SED	202-14LTM					1	X		
9/23/2014	14:58	NBH14-0054		SED	202-14LTM					1	X		
9/23/2014	14:04	NBH14-0055		SED	202-14LTM					1	X		
9/23/2014	14:08	NBH14-0056		SED	202-14LTM					1	X		
9/23/2014	14:27	NBH14-0073		SED	333-14LTM					1	X		
9/23/2014	14:13	NBH14-0074		SED	333-14LTM					1	X		
9/23/2014	14:20	NBH14-0075		SED	333-14LTM					1	X		
9/23/2014	14:36	NBH14-0076		SED	333-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

[Signature] 9/25/14 1500



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar

Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-113

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	13:39	NBH14-0077		SED	339-14LTM					1	X		
9/23/2014	13:21	NBH14-0078		SED	339-14LTM					1	X		
9/23/2014	13:31	NBH14-0079		SED	339-14LTM					1	X		
9/23/2014	13:53	NBH14-0080		SED	339-14LTM					1	X		
9/23/2014	12:26	NBH14-0081		SED	346-14LTM					1	X		
9/23/2014	12:37	NBH14-0082		SED	346-14LTM					1	X		
9/23/2014	12:45	NBH14-0083		SED	346-14LTM					1	X		
9/23/2014	12:54	NBH14-0084		SED	346-14LTM					1	X		
9/23/2014	11:29	NBH14-0085		SED	340-14LTM					1	X		
9/23/2014	11:15	NBH14-0086		SED	340-14LTM					1	X		
9/23/2014	11:22	NBH14-0087		SED	340-14LTM					1	X		
9/23/2014	11:36	NBH14-0088		SED	340-14LTM					1	X		
9/23/2014	10:32	NBH14-0089		SED	341-14LTM					1	X		
9/23/2014	10:22	NBH14-0090		SED	341-14LTM					1	X		
9/23/2014	10:39	NBH14-0091		SED	341-14LTM					1	X		
9/23/2014	10:48	NBH14-0092		SED	341-14LTM					1	X		
9/23/2014	9:53	NBH14-0093		SED	334-14LTM					1	X		
9/23/2014	9:28	NBH14-0094		SED	334-14LTM					1	X		
9/23/2014	9:35	NBH14-0095		SED	334-14LTM					1	X		
9/23/2014	9:43	NBH14-0096		SED	334-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

 9/25/14 1500



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-114

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	8:57	NBH14-0097		SED	335-14LTM					1	X		
9/23/2014	8:45	NBH14-0098		SED	335-14LTM					1	X		
9/23/2014	8:51	NBH14-0099		SED	335-14LTM					1	X		
9/23/2014	9:07	NBH14-0100		SED	335-14LTM					1	X		
9/23/2014	10:12	NBH14-0061		SED	147-14LTM					1	X		
9/23/2014	10:16	NBH14-0062		SED	147-14LTM					1	X		
9/23/2014	10:23	NBH14-0063		SED	147-14LTM					1	X		
9/23/2014	10:29	NBH14-0064		SED	147-14LTM					1	X		
9/23/2014	9:09	NBH14-0065		SED	135-14LTM					1	X		
9/23/2014	9:12	NBH14-0066		SED	135-14LTM					1	X		
9/23/2014	9:17	NBH14-0067		SED	135-14LTM					1	X		
9/23/2014	9:24	NBH14-0068		SED	135-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

[Signature] 9/25/14 15:00



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-115

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:24	NBH14-0001	M8152	SED	120-14LTM	1	X						
9/22/2014	14:24	NBH14-0005	M8153	SED	125-14LTM	1	X						
9/22/2014	11:16	NBH14-0009	M8154	SED	130-14LTM	1	X						
9/22/2014	12:08	NBH14-0013	M8155	SED	134-14LTM	1	X						
9/22/2014	8:13	NBH14-0017	M8156	SED	150-14LTM	1	X						
9/22/2014	11:38	NBH14-0021	M8157	SED	253-14LTM	1	X						
9/22/2014	9:37	NBH14-0025	M8158	SED	216-14LTM	1	X						
9/22/2014	10:40	NBH14-0029	M8159	SED	220-14LTM	1	X						
9/22/2014	15:25	NBH14-0033	M8160	SED	235-14LTM	1	X						
9/22/2014	14:03	NBH14-0037	M8161	SED	240-14LTM	1	X						
9/22/2014	13:06	NBH14-0041	M8162	SED	245-14LTM	1	X						
9/23/2014	15:43	NBH14-0045	M8163	SED	146-14LTM	1	X						
9/23/2014	14:57	NBH14-0049	M8164	SED	140-14LTM	1	X						
9/23/2014	13:53	NBH14-0053	M8165	SED	202-14LTM	1	X						
9/23/2014	10:12	NBH14-0061	M8166	SED	147-14LTM	1	X						
9/23/2014	9:09	NBH14-0065	M8167	SED	135-14LTM	1	X						
9/23/2014	14:27	NBH14-0073	M8168	SED	333-14LTM	1	X						
9/23/2014	13:39	NBH14-0077	M8169	SED	339-14LTM	1	X						
9/23/2014	12:26	NBH14-0081	M8170	SED	346-14LTM	1	X						
9/23/2014	11:29	NBH14-0085	M8171	SED	340-14LTM	1	X						

Relinquished By (name/date/time):

J M Joz 9/26/14 9:15

Received By(name/date/time):

MW 9/26/14 9:15



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-117

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101		SED	349-14LTM			1	X				
9/24/2014	9:18	NBH14-0105		SED	352-14LTM			1	X				
9/24/2014	10:56	NBH14-0109		SED	345-14LTM			1	X				
9/24/2014	12:10	NBH14-0113		SED	318-14LTM			1	X				
9/24/2014	13:15	NBH14-0117		SED	311-14LTM			1	X				
9/24/2014	14:24	NBH14-0121		SED	306-14LTM			1	X				
9/25/2014	8:15	NBH14-0125		SED	221-14LTM			1	X				
9/25/2014	9:49	NBH14-0129		SED	249-14LTM			1	X				
9/25/2014	11:00	NBH14-0133		SED	317-14LTM			1	X				
9/25/2014	11:32	NBH14-0137		SED	309-14LTM			1	X				
9/25/2014	12:58	NBH14-0141		SED	310-14LTM			1	X				
9/25/2014	14:03	NBH14-0145		SED	304-14LTM			1	X				
9/25/2014	14:56	NBH14-0149		SED	250-14LTM			1	X				
9/25/2014	8:19	NBH14-0153		SED	105-14LTM			1	X				
9/25/2014	9:06	NBH14-0157		SED	109-14LTM			1	X				
9/25/2014	9:55	NBH14-0161		SED	115-14LTM			1	X				
9/25/2014	12:58	NBH14-0165		SED	154-14LTM			1	X				
9/25/2014	14:11	NBH14-0169		SED	139-14LTM			1	X				
9/25/2014	15:14	NBH14-0173		SED	131-14LTM			1	X				

Relinquished By (name/date/time):

Received By(name/date/time):

Jessica M Tenzar 9/29/14 15:30



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-118

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:30	NBH14-0002	43214	TS	120-14LTM							2	X
9/22/2014	15:38	NBH14-0003	43314	TS	120-14LTM							2	X
9/22/2014	15:45	NBH14-0004	43414	TS	120-14LTM							2	X
9/22/2014	14:32	NBH14-0006	43514	TS	125-14LTM							1	X
9/22/2014	14:41	NBH14-0007	43614	TS	125-14LTM							1	X
9/22/2014	14:54	NBH14-0008	43714	TS	125-14LTM							1	X
9/22/2014	11:25	NBH14-0010	43814	TS	130-14LTM							1	X
9/22/2014	11:32	NBH14-0011	43914	TS	130-14LTM							1	X
9/22/2014	11:40	NBH14-0012	44014	TS	130-14LTM							1	X
9/22/2014	12:15	NBH14-0014	44114	TS	134-14LTM							1	X
9/22/2014	12:27	NBH14-0015	44214	TS	134-14LTM							1	X
9/22/2014	12:33	NBH14-0016	44314	TS	134-14LTM							1	X
9/22/2014	9:28	NBH14-0018	44414	TS	150-14LTM							2	X
9/22/2014	9:39	NBH14-0019	44514	TS	150-14LTM							1	X
9/22/2014	9:56	NBH14-0020	44614	TS	150-14LTM							1	X
9/22/2014	11:28	NBH14-0022	44714	TS	253-14LTM							1	X
9/22/2014	11:49	NBH14-0023	44814	TS	253-14LTM							1	X
9/22/2014	12:04	NBH14-0024	44914	TS	253-14LTM							1	X
9/22/2014	9:14	NBH14-0026	45014	TS	216-14LTM							1	X
9/22/2014	9:26	NBH14-0027	45114	TS	216-14LTM							1	X
9/22/2014	9:43	NBH14-0028	45214	TS	216-14LTM							1	X

Relinquished By (name/date/time):

Jessie m jones 9/29/14 1400

Received By(name/date/time):

Samuel J. Baker 9/30/14 1300



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-119

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	10:20	NBH14-0030	45314	TS	220-14LTM							2	X
9/22/2014	10:29	NBH14-0031	45414	TS	220-14LTM							2	X
9/22/2014	10:53	NBH14-0032	46514	TS	220-14LTM							2	X
9/22/2014	14:40	NBH14-0034	45614	TS	235-14LTM							1	X
9/22/2014	14:49	NBH14-0035	45714	TS	235-14LTM							1	X
9/22/2014	15:00	NBH14-0036	45814	TS	235-14LTM							1	X
9/22/2014	13:21	NBH14-0038	45914	TS	240-14LTM							1	X
9/22/2014	13:30	NBH14-0039	46014	TS	240-14LTM							1	X
9/22/2014	13:38	NBH14-0040	46114	TS	240-14LTM							1	X
9/22/2014	12:40	NBH14-0042	46214	TS	245-14LTM							1	X
9/22/2014	12:46	NBH14-0043	46314	TS	245-14LTM							1	X
9/22/2014	12:53	NBH14-0044	46414	TS	245-14LTM							1	X
9/23/2014	15:46	NBH14-0046	46514	TS	146-14LTM							2	X
9/23/2014	16:00	NBH14-0047	46614	TS	146-14LTM							2	X
9/23/2014	16:03	NBH14-0048	46714	TS	146-14LTM							2	X
9/23/2014	15:02	NBH14-0050	46814	TS	140-14LTM							1	X
9/23/2014	15:06	NBH14-0051	46914	TS	140-14LTM							1	X
9/23/2014	15:11	NBH14-0052	47014	TS	140-14LTM							1	X
9/23/2014	13:58	NBH14-0054	47114	TS	202-14LTM							2	X
9/23/2014	14:04	NBH14-0055	47214	TS	202-14LTM							2	X
9/23/2014	14:08	NBH14-0056	47314	TS	202-14LTM							2	X

Relinquished By (name/date/time):

Jessie M. Tenzar 9/29/14 1100

Received By(name/date/time):

Laura Stober 9/30/14 1300



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-120

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	11:14	NBH14-0058	47414	TS	151-14LTM							1	X
9/23/2014	11:20	NBH14-0059	47514	TS	151-14LTM							2	X
9/23/2014	11:28	NBH14-0060	47614	TS	151-14LTM							1	X
9/23/2014	10:16	NBH14-0062	47714	TS	147-14LTM							1	X
9/23/2014	10:23	NBH14-0063	47814	TS	147-14LTM							1	X
9/23/2014	10:29	NBH14-0064	47914	TS	147-14LTM							1	X
9/23/2014	9:12	NBH14-0066	48014	TS	135-14LTM							1	X
9/23/2014	9:17	NBH14-0067	48114	TS	135-14LTM							1	X
9/23/2014	9:24	NBH14-0068	48214	TS	135-14LTM							1	X
9/23/2014	9:12	NBH14-0070	48314	TS	155-14LTM							2	X
9/23/2014	9:17	NBH14-0071	48414	TS	155-14LTM							2	X
9/23/2014	9:24	NBH14-0072	48514	TS	155-14LTM							2	X
9/23/2014	14:13	NBH14-0074	48614	TS	333-14LTM							2	X
9/23/2014	14:20	NBH14-0075	48714	TS	333-14LTM							3	X
9/23/2014	14:36	NBH14-0076	48814	TS	333-14LTM							3	X
9/23/2014	13:21	NBH14-0078	48914	TS	339-14LTM							1	X
9/23/2014	13:31	NBH14-0079	49014	TS	339-14LTM							1	X
9/23/2014	13:53	NBH14-0080	49114	TS	339-14LTM							1	X
9/23/2014	12:37	NBH14-0082	49214	TS	346-14LTM							1	X
9/23/2014	12:45	NBH14-0083	49314	TS	346-14LTM							1	X
9/23/2014	12:54	NBH14-0084	49414	TS	346-14LTM							1	X

Relinquished By (name/date/time):

Received By(name/date/time):

Jessie M. Jones 9/29/14 1:00

Lauren Stober 9/30/14 1300



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-121

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	11:15	NBH14-0086	49514	TS	340-14LTM							1	X
9/23/2014	11:22	NBH14-0087	49614	TS	340-14LTM							1	X
9/23/2014	11:36	NBH14-0088	49714	TS	340-14LTM							1	X
9/23/2014	10:22	NBH14-0090	49814	TS	341-14LTM							1	X
9/23/2014	10:39	NBH14-0091	49914	TS	341-14LTM							1	X
9/23/2014	10:48	NBH14-0092	50014	TS	341-14LTM							1	X
9/23/2014	9:28	NBH14-0094	50114	TS	334-14LTM							1	X
9/23/2014	9:35	NBH14-0095	50214	TS	334-14LTM							1	X
9/23/2014	9:43	NBH14-0096	50314	TS	334-14LTM							1	X
9/23/2014	8:45	NBH14-0098	50414	TS	335-14LTM							2	X
9/23/2014	8:51	NBH14-0099	50514	TS	335-14LTM							2	X
9/23/2014	9:07	NBH14-0100	50614	TS	335-14LTM							2	X
9/24/2014	10:03	NBH14-0102	50714	TS	349-14LTM							1	X
9/24/2014	10:09	NBH14-0103	50814	TS	349-14LTM							1	X
9/24/2014	10:22	NBH14-0104	50914	TS	349-14LTM							1	X
9/24/2014	8:54	NBH14-0106	51014	TS	352-14LTM							2	X
9/24/2014	9:12	NBH14-0107	51114	TS	352-14LTM							3	X
9/24/2014	9:33	NBH14-0108	51214	TS	352-14LTM							3	X
9/24/2014	10:50	NBH14-0110	51314	TS	345-14LTM							1	X
9/24/2014	11:01	NBH14-0111	51414	TS	345-14LTM							1	X
9/24/2014	11:07	NBH14-0112	51514	TS	345-14LTM							1	X

Relinquished By (name/date/time):

Jessie M Jones 9/29/14 1400

Received By(name/date/time):

Lauren Stober 9/30/14 1300



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-122

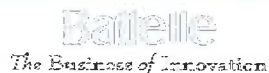
Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	11:54	NBH14-0114	51614	TS	318-14LTM							2	X
9/24/2014	12:18	NBH14-0115	51714	TS	318-14LTM							3	X
9/24/2014	12:23	NBH14-0116	51814	TS	318-14LTM							2	X
9/24/2014	13:22	NBH14-0118	51914	TS	311-14LTM							2	X
9/24/2014	13:33	NBH14-0119	52014	TS	311-14LTM							2	X
9/24/2014	13:39	NBH14-0120	52114	TS	311-14LTM							2	X
9/24/2014	14:07	NBH14-0122	52214	TS	306-14LTM							2	X
9/24/2014	14:14	NBH14-0123	52314	TS	306-14LTM							2	X
9/24/2014	14:33	NBH14-0124	52414	TS	306-14LTM							2	X
9/25/2014	7:55	NBH14-0126	52514	TS	221-14LTM							2	X
9/25/2014	8:03	NBH14-0127	52614	TS	221-14LTM							1	X
9/25/2014	8:23	NBH14-0128	52714	TS	221-14LTM							1	X
9/25/2014	9:29	NBH14-0130	52814	TS	249-14LTM							2	X
9/25/2014	9:37	NBH14-0131	52914	TS	249-14LTM							1	X
9/25/2014	10:08	NBH14-0132	53014	TS	249-14LTM							1	X
9/25/2014	10:39	NBH14-0134	53114	TS	317-14LTM							1	X
9/25/2014	10:47	NBH14-0135	53214	TS	317-14LTM							1	X
9/25/2014	11:08	NBH14-0136	53314	TS	317-14LTM							1	X
9/25/2014	11:31	NBH14-0138	53414	TS	309-14LTM							1	X
9/25/2014	11:33	NBH14-0139	53514	TS	309-14LTM							1	X
9/25/2014	11:34	NBH14-0140	53614	TS	309-14LTM							1	X

Relinquished By (name/date/time):

Jessica Tenzar 9/29/14 1:00

Received By (name/date/time):

James D. Dyer 9/30/14 1300



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-123

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/25/2014	12:57	NBH14-0142	53714	TS	310-14LTM							1	X
9/25/2014	13:12	NBH14-0143	53814	TS	310-14LTM							1	X
9/25/2014	13:18	NBH14-0144	53914	TS	310-14LTM							1	X
9/25/2014	13:41	NBH14-0146	54014	TS	304-14LTM							2	X
9/25/2014	13:54	NBH14-0147	54114	TS	304-14LTM							2	X
9/25/2014	14:12	NBH14-0148	54214	TS	304-14LTM							2	X
9/25/2014	14:38	NBH14-0150	54314	TS	250-14LTM							3	X
9/25/2014	15:13	NBH14-0151	54414	TS	250-14LTM							3	X
9/25/2014	15:21	NBH14-0152	54514	TS	250-14LTM							3	X
9/25/2014	8:26	NBH14-0154	54614	TS	105-14LTM							1	X
9/25/2014	8:30	NBH14-0155	54714	TS	105-14LTM							1	X
9/25/2014	8:34	NBH14-0156	54814	TS	105-14LTM							1	X
9/25/2014	9:11	NBH14-0158	54914	TS	109-14LTM							1	X
9/25/2014	9:16	NBH14-0159	55014	TS	109-14LTM							1	X
9/25/2014	9:21	NBH14-0160	55114	TS	109-14LTM							1	X
9/25/2014	9:58	NBH14-0162	55214	TS	115-14LTM							1	X
9/25/2014	10:04	NBH14-0163	55314	TS	115-14LTM							1	X
9/25/2014	10:12	NBH14-0164	55414	TS	115-14LTM							1	X
9/25/2014	13:13	NBH14-0166	55514	TS	154-14LTM							2	X
9/25/2014	13:18	NBH14-0167	55614	TS	154-14LTM							2	X
9/25/2014	13:30	NBH14-0168	55714	TS	154-14LTM							2	X

Relinquished By (name/date/time):

Jessie M. Jones 9/29/14 1700

Received By(name/date/time):

Lauren Hobbs 9/30/14 1300



Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-124

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/25/2014	14:20	NBH14-0170	55814	TS	139-14LTM							1	X
9/25/2014	14:22	NBH14-0171	55914	TS	139-14LTM							1	X
9/25/2014	14:30	NBH14-0172	56014	TS	139-14LTM							1	X
9/25/2014	15:20	NBH14-0174	56114	TS	131-14LTM							1	X
9/25/2014	15:28	NBH14-0175	56214	TS	131-14LTM							1	X
9/25/2014	15:32	NBH14-0176	56314	TS	131-14LTM							1	X

Relinquished By (name/date/time):

Sam Jung 9/29/14 1400

Received By(name/date/time):

Lance Stober 9/30/14 1300



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-125

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101		SED	349-14LTM					1	X		
9/24/2014	10:03	NBH14-0102		SED	349-14LTM					1	X		
9/24/2014	10:09	NBH14-0103		SED	349-14LTM					1	X		
9/24/2014	10:22	NBH14-0104		SED	349-14LTM					1	X		
9/24/2014	9:18	NBH14-0105		SED	352-14LTM					1	X		
9/24/2014	8:54	NBH14-0106		SED	352-14LTM					1	X		
9/24/2014	9:12	NBH14-0107		SED	352-14LTM					1	X		
9/24/2014	9:33	NBH14-0108		SED	352-14LTM					1	X		
9/24/2014	10:56	NBH14-0109		SED	345-14LTM					1	X		
9/24/2014	10:50	NBH14-0110		SED	345-14LTM					1	X		
9/24/2014	11:01	NBH14-0111		SED	345-14LTM					1	X		
9/24/2014	11:07	NBH14-0112		SED	345-14LTM					1	X		
9/24/2014	12:10	NBH14-0113		SED	318-14LTM					1	X		
9/24/2014	11:54	NBH14-0114		SED	318-14LTM					1	X		
9/24/2014	12:18	NBH14-0115		SED	318-14LTM					1	X		
9/24/2014	12:23	NBH14-0116		SED	318-14LTM					1	X		
9/24/2014	13:15	NBH14-0117		SED	311-14LTM					1	X		
9/24/2014	13:22	NBH14-0118		SED	311-14LTM					1	X		
9/24/2014	13:33	NBH14-0119		SED	311-14LTM					1	X		
9/24/2014	13:39	NBH14-0120		SED	311-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

Jessica M Tenzar 9/30/14 1500



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-126

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	14:24	NBH14-0121		SED	306-14LTM					1	X		
9/24/2014	14:07	NBH14-0122		SED	306-14LTM					1	X		
9/24/2014	14:14	NBH14-0123		SED	306-14LTM					1	X		
9/24/2014	14:33	NBH14-0124		SED	306-14LTM					1	X		
9/25/2014	8:15	NBH14-0125		SED	221-14LTM					1	X		
9/25/2014	7:55	NBH14-0126		SED	221-14LTM					1	X		
9/25/2014	8:03	NBH14-0127		SED	221-14LTM					1	X		
9/25/2014	8:23	NBH14-0128		SED	221-14LTM					1	X		
9/25/2014	9:49	NBH14-0129		SED	249-14LTM					1	X		
9/25/2014	9:29	NBH14-0130		SED	249-14LTM					1	X		
9/25/2014	9:37	NBH14-0131		SED	249-14LTM					1	X		
9/25/2014	10:08	NBH14-0132		SED	249-14LTM					1	X		
9/25/2014	11:00	NBH14-0133		SED	317-14LTM					1	X		
9/25/2014	10:39	NBH14-0134		SED	317-14LTM					1	X		
9/25/2014	10:47	NBH14-0135		SED	317-14LTM					1	X		
9/25/2014	11:08	NBH14-0136		SED	317-14LTM					1	X		
9/25/2014	11:32	NBH14-0137		SED	309-14LTM					1	X		
9/25/2014	11:31	NBH14-0138		SED	309-14LTM					1	X		
9/25/2014	11:33	NBH14-0139		SED	309-14LTM					1	X		
9/25/2014	11:34	NBH14-0140		SED	309-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

Jessie M Tenzar 9/30/14 15:00



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-127

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/25/2014	12:58	NBH14-0141		SED	310-14LTM					1	X		
9/25/2014	12:57	NBH14-0142		SED	310-14LTM					1	X		
9/25/2014	13:12	NBH14-0143		SED	310-14LTM					1	X		
9/25/2014	13:18	NBH14-0144		SED	310-14LTM					1	X		
9/25/2014	14:03	NBH14-0145		SED	304-14LTM					1	X		
9/25/2014	13:41	NBH14-0146		SED	304-14LTM					1	X		
9/25/2014	13:54	NBH14-0147		SED	304-14LTM					1	X		
9/25/2014	14:12	NBH14-0148		SED	304-14LTM					1	X		
9/25/2014	14:56	NBH14-0149		SED	250-14LTM					1	X		
9/25/2014	14:38	NBH14-0150		SED	250-14LTM					1	X		
9/25/2014	15:13	NBH14-0151		SED	250-14LTM					1	X		
9/25/2014	15:21	NBH14-0152		SED	250-14LTM					1	X		
9/25/2014	8:19	NBH14-0153		SED	105-14LTM					1	X		
9/25/2014	8:26	NBH14-0154		SED	105-14LTM					1	X		
9/25/2014	8:30	NBH14-0155		SED	105-14LTM					1	X		
9/25/2014	8:34	NBH14-0156		SED	105-14LTM					1	X		
9/25/2014	9:06	NBH14-0157		SED	109-14LTM					1	X		
9/25/2014	9:11	NBH14-0158		SED	109-14LTM					1	X		
9/25/2014	9:16	NBH14-0159		SED	109-14LTM					1	X		
9/25/2014	9:21	NBH14-0160		SED	109-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

Jessica m Tenzar 9/30/14 1500



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-128

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/25/2014	9:55	NBH14-0161		SED	115-14LTM					1	X		
9/25/2014	9:58	NBH14-0162		SED	115-14LTM					1	X		
9/25/2014	10:04	NBH14-0163		SED	115-14LTM					1	X		
9/25/2014	10:12	NBH14-0164		SED	115-14LTM					1	X		
9/25/2014	12:58	NBH14-0165		SED	154-14LTM					1	X		
9/25/2014	13:13	NBH14-0166		SED	154-14LTM					1	X		
9/25/2014	13:18	NBH14-0167		SED	154-14LTM					1	X		
9/25/2014	13:30	NBH14-0168		SED	154-14LTM					1	X		
9/25/2014	14:11	NBH14-0169		SED	139-14LTM					1	X		
9/25/2014	14:20	NBH14-0170		SED	139-14LTM					1	X		
9/25/2014	14:22	NBH14-0171		SED	139-14LTM					1	X		
9/25/2014	14:30	NBH14-0172		SED	139-14LTM					1	X		
9/25/2014	15:14	NBH14-0173		SED	131-14LTM					1	X		
9/25/2014	15:20	NBH14-0174		SED	131-14LTM					1	X		
9/25/2014	15:28	NBH14-0175		SED	131-14LTM					1	X		
9/25/2014	15:32	NBH14-0176		SED	131-14LTM					1	X		
9/26/2014	7:39	NBH14-0177		SED	247-14LTM					1	X		
9/26/2014	7:23	NBH14-0178		SED	247-14LTM					1	X		
9/26/2014	7:31	NBH14-0179		SED	247-14LTM					1	X		
9/26/2014		NBH14-0180		SED	247-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

Jessica Tenzar 9/30/14 15:00



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-129

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/26/2014	8:36	NBH14-0181		SED	242-14LTM					1	X		
9/26/2014	8:18	NBH14-0182		SED	242-14LTM					1	X		
9/26/2014	8:27	NBH14-0183		SED	242-14LTM					1	X		
9/26/2014	8:45	NBH14-0184		SED	242-14LTM					1	X		
9/26/2014	9:50	NBH14-0185		SED	241-14LTM					1	X		
9/26/2014	9:29	NBH14-0186		SED	241-14LTM					1	X		
9/26/2014	9:39	NBH14-0187		SED	241-14LTM					1	X		
9/26/2014	9:58	NBH14-0188		SED	241-14LTM					1	X		
9/26/2014	11:00	NBH14-0189		SED	237-14LTM					1	X		
9/26/2014	11:15	NBH14-0190		SED	237-14LTM					1	X		
9/26/2014	11:30	NBH14-0191		SED	237-14LTM					1	X		
9/26/2014	11:45	NBH14-0192		SED	237-14LTM					1	X		
9/26/2014	12:49	NBH14-0193		SED	236-14LTM					1	X		
9/26/2014	12:15	NBH14-0194		SED	236-14LTM					1	X		
9/26/2014	12:23	NBH14-0195		SED	236-14LTM					1	X		
9/26/2014	12:38	NBH14-0196		SED	236-14LTM					1	X		
9/26/2014	13:38	NBH14-0197		SED	231-14LTM					1	X		
9/26/2014	13:20	NBH14-0198		SED	231-14LTM					1	X		
9/26/2014	13:30	NBH14-0235		SED	231-14LTM					1	X		
9/26/2014	13:50	NBH14-0236		SED	231-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

Jessie M. Tenzar 9/30/14 10:00



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-130

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic infauna enumeration	Room Temperature, 10% formalin
9/26/2014	14:24	NBH14-0199		SED	230-14LTM					1	X		
9/26/2014	14:12	NBH14-0200		SED	230-14LTM					1	X		
9/26/2014	14:18	NBH14-0201		SED	230-14LTM					1	X		
9/26/2014	14:33	NBH14-0202		SED	230-14LTM					1	X		
9/26/2014	15:17	NBH14-0203		SED	117-14LTM					1	X		
9/26/2014	15:21	NBH14-0204		SED	117-14LTM					1	X		
9/26/2014	15:26	NBH14-0205		SED	117-14LTM					1	X		
9/26/2014	15:31	NBH14-0206		SED	117-14LTM					1	X		
9/26/2014	14:32	NBH14-0207		SED	114-14LTM					1	X		
9/26/2014	14:38	NBH14-0208		SED	114-14LTM					1	X		
9/26/2014	14:43	NBH14-0209		SED	114-14LTM					1	X		
9/26/2014	14:48	NBH14-0210		SED	114-14LTM					1	X		
9/26/2014	13:36	NBH14-0211		SED	111-14LTM					1	X		
9/26/2014	13:40	NBH14-0212		SED	111-14LTM					1	X		
9/26/2014	13:46	NBH14-0213		SED	111-14LTM					1	X		
9/26/2014	13:51	NBH14-0214		SED	111-14LTM					1	X		
9/26/2014	8:21	NBH14-0215		SED	152-14LTM					1	X		
9/26/2014	8:26	NBH14-0216		SED	152-14LTM					1	X		
9/26/2014	8:33	NBH14-0217		SED	152-14LTM					1	X		
9/26/2014	8:37	NBH14-0218		SED	152-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

J. M. J... 9/30/14 15:20



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-131

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/26/2014	8:50	NBH14-0219		SED	152-14LTM					1	X		
9/26/2014	9:24	NBH14-0220		SED	138-14LTM					1	X		
9/26/2014	9:29	NBH14-0221		SED	138-14LTM					1	X		
9/26/2014	9:36	NBH14-0222		SED	138-14LTM					1	X		
9/26/2014	9:41	NBH14-0223		SED	138-14LTM					1	X		
9/26/2014	10:54	NBH14-0224		SED	126-14LTM					1	X		
9/26/2014	10:58	NBH14-0225		SED	126-14LTM					1	X		
9/26/2014	11:03	NBH14-0226		SED	126-14LTM					1	X		
9/26/2014	11:06	NBH14-0227		SED	126-14LTM					1	X		
9/26/2014	11:50	NBH14-0228		SED	108-14LTM					1	X		
9/26/2014	11:59	NBH14-0229		SED	108-14LTM					1	X		
9/26/2014	12:06	NBH14-0230		SED	108-14LTM					1	X		
9/26/2014	12:12	NBH14-0231		SED	108-14LTM					1	X		
9/25/2014	14:16	NBH14-0232		SED	139-14LTM					1	X		
9/26/2014	8:56	NBH14-0233		SED	242-14LTM					1	X		
9/24/2014	14:40	NBH14-0234		SED	306-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

J M Jones 9/30/14 1500



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD &MRF
(Please report data to GeoTesting Express)

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-132

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057		SED	151-14LTM			1	X				
9/30/2014	10:25	NBH14-0069		SED	155-14LTM			1	X				
9/26/2014	7:39	NBH14-0177		SED	247-14LTM			1	X				
9/26/2014	8:36	NBH14-0181		SED	242-14LTM			1	X				
9/26/2014	9:50	NBH14-0185		SED	241-14LTM			1	X				
9/26/2014	11:00	NBH14-0189		SED	237-14LTM			1	X				
9/26/2014	12:49	NBH14-0193		SED	236-14LTM			1	X				
9/26/2014	13:38	NBH14-0197		SED	231-14LTM			1	X				
9/26/2014	14:24	NBH14-0199		SED	230-14LTM			1	X				
9/26/2014	15:17	NBH14-0203		SED	117-14LTM			1	X				
9/26/2014	14:32	NBH14-0207		SED	114-14LTM			1	X				
9/26/2014	13:36	NBH14-0211		SED	111-14LTM			1	X				
9/26/2014	8:21	NBH14-0215		SED	152-14LTM			1	X				
9/26/2014	8:50	NBH14-0219		SED	152-14LTM			1	X				
9/26/2014	9:24	NBH14-0220		SED	138-14LTM			1	X				
9/26/2014	10:54	NBH14-0224		SED	126-14LTM			1	X				
9/26/2014	11:50	NBH14-0228		SED	108-14LTM			1	X				
9/25/2014	14:16	NBH14-0232		SED	139-14LTM			1	X				
9/26/2014	8:56	NBH14-0233		SED	242-14LTM			1	X				
9/24/2014	14:40	NBH14-0234		SED	306-14LTM			1	X				

Relinquished By (name/date/time):

Paul Scholz 1-OCT-14 12:30

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD &MRF
(Please report data to GeoTesting Express)

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-133

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:14	NBH14-0237		SED	222-14LTM			1	X				
9/29/2014	15:54	NBH14-0241		SED	224-14LTM			1	X				
9/29/2014	8:06	NBH14-0245		SED	128-14LTM			1	X				
9/29/2014	9:06	NBH14-0249		SED	123-14LTM			1	X				
9/29/2014	10:01	NBH14-0253		SED	121-14LTM			1	X				
9/29/2014	12:47	NBH14-0257		SED	218-14LTM			1	X				
9/29/2014	14:39	NBH14-0261		SED	208-14LTM			1	X				
9/29/2014	15:26	NBH14-0265		SED	207-14LTM			1	X				
9/29/2014	8:13	NBH14-0269		SED	332-14LTM			1	X				
9/29/2014	9:08	NBH14-0273		SED	338-14LTM			1	X				
9/29/2014	9:52	NBH14-0277		SED	331-14LTM			1	X				
9/29/2014	10:45	NBH14-0281		SED	323-14LTM			1	X				
9/29/2014	11:15	NBH14-0285		SED	324-14LTM			1	X				
9/29/2014	12:27	NBH14-0289		SED	325-14LTM			1	X				
9/30/2014	8:00	NBH14-0302		SED	225-14LTM			1	X				
9/30/2014	9:02	NBH14-0306		SED	226-14LTM			1	X				
9/30/2014	9:59	NBH14-0310		SED	227-14LTM			1	X				
9/30/2014	11:47	NBH14-0314		SED	217-14LTM			1	X				
9/30/2014	12:41	NBH14-0318		SED	212-14LTM			1	X				
9/30/2014	13:44	NBH14-0322		SED	211-14LTM			1	X				

Relinquished By (name/date/time):

Paul Schell 1-Oct-14 12:30

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-135

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057		SED	151-14LTM	1	X						
9/30/2014	10:25	NBH14-0069		SED	155-14LTM	1	X						
9/26/2014	8:36	NBH14-0181		SED	242-14LTM	1	X						
9/26/2014	9:50	NBH14-0185		SED	241-14LTM	1	X						
9/26/2014	11:00	NBH14-0189		SED	237-14LTM	1	X						
9/26/2014	12:49	NBH14-0193		SED	236-14LTM	1	X						
9/26/2014	13:38	NBH14-0197		SED	231-14LTM	1	X						
9/26/2014	14:24	NBH14-0199		SED	230-14LTM	1	X						
9/26/2014	15:17	NBH14-0203		SED	117-14LTM	1	X						
9/26/2014	14:32	NBH14-0207		SED	114-14LTM	1	X						
9/26/2014	13:36	NBH14-0211		SED	111-14LTM	1	X						
9/26/2014	8:21	NBH14-0215		SED	152-14LTM	1	X						
9/26/2014	8:50	NBH14-0219		SED	152-14LTM	1	X						
9/26/2014	9:24	NBH14-0220		SED	138-14LTM	1	X						
9/26/2014	10:54	NBH14-0224		SED	126-14LTM	1	X						
9/26/2014	11:50	NBH14-0228		SED	108-14LTM	1	X						
9/25/2014	14:16	NBH14-0232		SED	139-14LTM	1	X						
9/26/2014	8:56	NBH14-0233		SED	242-14LTM	1	X						
9/24/2014	14:40	NBH14-0234		SED	306-14LTM	1	X						
9/29/2014	15:14	NBH14-0237		SED	222-14LTM	1	X						

Relinquished By (name/date/time):

Matthew R. [Signature] 10/1/14 1700

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-136

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:54	NBH14-0241		SED	224-14LTM	1	X						
9/29/2014	8:06	NBH14-0245		SED	128-14LTM	1	X						
9/29/2014	9:06	NBH14-0249		SED	123-14LTM	1	X						
9/29/2014	10:01	NBH14-0253		SED	121-14LTM	1	X						
9/29/2014	12:47	NBH14-0257		SED	218-14LTM	1	X						
9/29/2014	14:39	NBH14-0261		SED	208-14LTM	1	X						
9/29/2014	15:26	NBH14-0265		SED	207-14LTM	1	X						
9/29/2014	8:13	NBH14-0269		SED	332-14LTM	1	X						
9/29/2014	9:08	NBH14-0273		SED	338-14LTM	1	X						
9/29/2014	9:52	NBH14-0277		SED	331-14LTM	1	X						
9/29/2014	10:45	NBH14-0281		SED	323-14LTM	1	X						
9/29/2014	11:15	NBH14-0285		SED	324-14LTM	1	X						
9/29/2014	12:27	NBH14-0289		SED	325-14LTM	1	X						
9/30/2014	8:00	NBH14-0302		SED	225-14LTM	1	X						
9/30/2104	9:02	NBH14-0306		SED	226-14LTM	1	X						
9/30/2014	9:59	NBH14-0310		SED	227-14LTM	1	X						
9/30/2014	11:47	NBH14-0314		SED	217-14LTM	1	X						
9/30/2014	12:41	NBH14-0318		SED	212-14LTM	1	X						
9/30/2014	13:44	NBH14-0322		SED	211-14LTM	1	X						
9/30/2014	14:36	NBH14-0326		SED	204-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-137

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101		SED	349-14LTM	1	X						
9/24/2014	9:18	NBH14-0105		SED	352-14LTM	1	X						
9/24/2014	10:56	NBH14-0109		SED	345-14LTM	1	X						
9/24/2014	12:10	NBH14-0113		SED	318-14LTM	1	X						
9/24/2014	13:15	NBH14-0117		SED	311-14LTM	1	X						
9/24/2014	14:24	NBH14-0121		SED	306-14LTM	1	X						
9/25/2014	8:15	NBH14-0125		SED	221-14LTM	1	X						
9/25/2014	9:49	NBH14-0129		SED	249-14LTM	1	X						
9/25/2014	11:00	NBH14-0133		SED	317-14LTM	1	X						
9/25/2014	11:32	NBH14-0137		SED	309-14LTM	1	X						
9/25/2014	12:58	NBH14-0141		SED	310-14LTM	1	X						
9/25/2014	14:03	NBH14-0145		SED	304-14LTM	1	X						
9/25/2014	14:56	NBH14-0149		SED	250-14LTM	1	X						
9/25/2014	8:19	NBH14-0153		SED	105-14LTM	1	X						
9/25/2014	9:06	NBH14-0157		SED	109-14LTM	1	X						
9/25/2014	9:55	NBH14-0161		SED	115-14LTM	1	X						
9/25/2014	12:58	NBH14-0165		SED	154-14LTM	1	X						
9/25/2014	14:11	NBH14-0169		SED	139-14LTM	1	X						
9/25/2014	15:14	NBH14-0173		SED	131-14LTM	1	X						
9/26/2014	7:39	NBH14-0177		SED	247-14LTM	1	X						

Relinquished By (name/date/time):

Matthew R. [Signature] 10/1/14 1700

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-138

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	11:14	NBH14-0058		SED	151-14LTM					1	X		
9/23/2014	11:20	NBH14-0059		SED	151-14LTM					1	X		
9/23/2014	11:28	NBH14-0060		SED	151-14LTM					1	X		
9/23/2014	9:12	NBH14-0070		SED	155-14LTM					1	X		
9/23/2014	9:17	NBH14-0071		SED	155-14LTM					1	X		
9/23/2014	9:24	NBH14-0072		SED	155-14LTM					1	X		
9/30/2014	10:09	NBH14-0057		SED	151-14LTM					1	X		
9/30/2014	10:25	NBH14-0069		SED	155-14LTM					1	X		
9/29/2014	15:14	NBH14-0237		SED	222-14LTM					1	X		
9/29/2014	15:54	NBH14-0241		SED	224-14LTM					1	X		
9/29/2014	15:44	NBH14-0242		SED	224-14LTM					1	X		
9/29/2014	15:48	NBH14-0243		SED	224-14LTM					1	X		
9/29/2014	16:00	NBH14-0244		SED	224-14LTM					1	X		
9/29/2014	8:06	NBH14-0245		SED	128-14LTM					1	X		
9/29/2014	8:13	NBH14-0246		SED	128-14LTM					1	X		
9/29/2014	8:23	NBH14-0247		SED	128-14LTM					1	X		
9/29/2014	8:32	NBH14-0248		SED	128-14LTM					1	X		
9/29/2014	9:06	NBH14-0249		SED	123-14LTM					1	X		
9/29/2014	9:14	NBH14-0250		SED	123-14LTM					1	X		
9/29/2014	9:38	NBH14-0251		SED	123-14LTM					1	X		

Relinquished By (name/date/time):

Paul Schoff 1-Oct-14 13:00

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-139

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	9:26	NBH14-0252		SED	123-14LTM					1	X		
9/29/2014	10:01	NBH14-0253		SED	121-14LTM					1	X		
9/29/2014	10:08	NBH14-0254		SED	121-14LTM					1	X		
9/29/2014	10:09	NBH14-0255		SED	121-14LTM					1	X		
9/29/2014	10:16	NBH14-0256		SED	121-14LTM					1	X		
9/29/2014	12:47	NBH14-0257		SED	218-14LTM					1	X		
9/29/2014	13:02	NBH14-0258		SED	218-14LTM					1	X		
9/29/2014	14:02	NBH14-0259		SED	218-14LTM					1	X		
9/29/2014	14:14	NBH14-0260		SED	218-14LTM					1	X		
9/29/2014	14:50	NBH14-0262		SED	208-14LTM					1	X		
9/29/2014	14:54	NBH14-0263		SED	208-14LTM					1	X		
9/29/2014	15:01	NBH14-0264		SED	208-14LTM					1	X		
9/29/2014	15:26	NBH14-0265		SED	207-14LTM					1	X		
9/29/2014	15:30	NBH14-0266		SED	207-14LTM					1	X		
9/29/2014	15:34	NBH14-0267		SED	207-14LTM					1	X		
9/29/2014	15:51	NBH14-0268		SED	207-14LTM					1	X		
9/29/2014	8:13	NBH14-0269		SED	332-14LTM					1	X		
9/29/2014	8:01	NBH14-0270		SED	332-14LTM					1	X		
9/29/2014	8:18	NBH14-0271		SED	332-14LTM					1	X		
9/29/2014	8:28	NBH14-0272		SED	332-14LTM					1	X		

Relinquished By (name/date/time):

Paul Scheldt 1-Oct-14 1300

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-140

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	9:08	NBH14-0273		SED	338-14LTM					1	X		
9/29/2014	8:52	NBH14-0274		SED	338-14LTM					1	X		
9/29/2014	9:01	NBH14-0275		SED	338-14LTM					1	X		
9/29/2014	9:18	NBH14-0276		SED	338-14LTM					1	X		
9/29/2014	9:52	NBH14-0277		SED	331-14LTM					1	X		
9/29/2014	9:37	NBH14-0278		SED	331-14LTM					1	X		
9/29/2014	9:44	NBH14-0279		SED	331-14LTM					1	X		
9/29/2014	10:03	NBH14-0280		SED	331-14LTM					1	X		
9/29/2014	10:45	NBH14-0281		SED	323-14LTM					1	X		
9/29/2014	10:28	NBH14-0282		SED	323-14LTM					1	X		
9/29/2014	10:37	NBH14-0283		SED	323-14LTM					1	X		
9/29/2014	10:52	NBH14-0284		SED	323-14LTM					1	X		
9/29/2014	11:15	NBH14-0285		SED	324-14LTM					1	X		
9/29/2014	11:34	NBH14-0286		SED	324-14LTM					1	X		
9/29/2014	11:47	NBH14-0287		SED	324-14LTM					1	X		
9/29/2014	11:54	NBH14-0288		SED	324-14LTM					1	X		
9/29/2014	12:27	NBH14-0289		SED	325-14LTM					1	X		
9/29/2014	12:07	NBH14-0290		SED	325-14LTM					1	X		
9/29/2014	12:16	NBH14-0291		SED	325-14LTM					1	X		
9/29/2014	12:35	NBH14-0292		SED	325-14LTM					1	X		

Relinquished By (name/date/time):

Received By(name/date/time):

Paul S. [Signature] 1-OCT-14 1300



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-141

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	8:00	NBH14-0302		SED	225-14LTM					1	X		
9/30/2014	7:44	NBH14-0303		SED	225-14LTM					1	X		
9/30/2014	7:53	NBH14-0304		SED	225-14LTM					1	X		
9/30/2014	8:08	NBH14-0305		SED	225-14LTM					1	X		
9/30/2014	9:02	NBH14-0306		SED	226-14LTM					1	X		
9/30/2014	8:34	NBH14-0307		SED	226-14LTM					1	X		
9/30/2014	8:44	NBH14-0308		SED	226-14LTM					1	X		
9/30/2014	8:47	NBH14-0309		SED	226-14LTM					1	X		
9/30/2014	9:59	NBH14-0310		SED	227-14LTM					1	X		
9/30/2014	9:44	NBH14-0311		SED	227-14LTM					1	X		
9/30/2014	9:52	NBH14-0312		SED	227-14LTM					1	X		
9/30/2014	10:20	NBH14-0313		SED	227-14LTM					1	X		
9/30/2014	11:47	NBH14-0314		SED	217-14LTM					1	X		
9/30/2014	11:34	NBH14-0315		SED	217-14LTM					1	X		
9/30/2014	11:40	NBH14-0316		SED	217-14LTM					1	X		
9/30/2014	11:52	NBH14-0317		SED	217-14LTM					1	X		
9/30/2014	12:41	NBH14-0318		SED	212-14LTM					1	X		
9/30/2014	12:24	NBH14-0319		SED	212-14LTM					1	X		
9/30/2014	12:32	NBH14-0320		SED	212-14LTM					1	X		
9/30/2014	12:54	NBH14-0321		SED	212-14LTM					1	X		

Relinquished By (name/date/time):

Karl Scholtz 1-10-14 13:00

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
GeoTesting Express
125 Nagog Park
Acton, MA 01720

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-142

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	13:44	NBH14-0322		SED	211-14LTM					1	X		
9/30/2014	13:25	NBH14-0323		SED	211-14LTM					1	X		
9/30/2014	13:33	NBH14-0324		SED	211-14LTM					1	X		
9/30/2014	13:51	NBH14-0325		SED	211-14LTM					1	X		
9/30/2014	14:36	NBH14-0326		SED	204-14LTM					1	X		
9/30/2014	14:17	NBH14-0327		SED	204-14LTM					1	X		
9/30/2014	14:25	NBH14-0328		SED	204-14LTM					1	X		
9/30/2014	14:45	NBH14-0329		SED	204-14LTM					1	X		
9/29/2014	15:04	NBH14-0238		SED	222-14LTM					1	X		
9/29/2014	15:09	NBH14-0239		SED	222-14LTM					1	X		
9/29/2014	15:20	NBH14-0240		SED	222-14LTM					1	X		
9/29/2014	14:39	NBH14-0261		SED	208-14LTM					1	X		

Relinquished By (name/date/time):

Received By (name/date/time):

Karl Scholze 1-Oct-14 13:00

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-143

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/26/2014	11:59	NBH14-0229		TS	108-14LTM							1	X
9/26/2014	12:06	NBH14-0230		TS	108-14LTM							2	X
9/26/2014	12:12	NBH14-0231		TS	108-14LTM							2	X
9/26/2014	13:40	NBH14-0212		TS	111-14LTM							1	X
9/26/2014	13:46	NBH14-0213		TS	111-14LTM							1	X
9/26/2014	13:51	NBH14-0214		TS	111-14LTM							1	X
9/26/2014	14:38	NBH14-0208		TS	114-14LTM							1	X
9/26/2014	14:43	NBH14-0209		TS	114-14LTM							1	X
9/26/2014	14:48	NBH14-0210		TS	114-14LTM							1	X
9/26/2014	15:21	NBH14-0204		TS	117-14LTM							2	X
9/26/2014	15:26	NBH14-0205		TS	117-14LTM							1	X
9/26/2014	15:31	NBH14-0206		TS	117-14LTM							1	X
9/29/2014	10:08	NBH14-0254		TS	121-14LTM							1	X
9/29/2014	10:09	NBH14-0255		TS	121-14LTM							1	X
9/29/2014	10:16	NBH14-0256		TS	121-14LTM							1	X
9/29/2014	9:14	NBH14-0250		TS	123-14LTM							1	X
9/29/2014	9:38	NBH14-0251		TS	123-14LTM							1	X
9/29/2014	9:26	NBH14-0252		TS	123-14LTM							1	X
9/26/2014	10:58	NBH14-0225		TS	126-14LTM							1	X
9/26/2014	11:03	NBH14-0226		TS	126-14LTM							2	X

Relinquished By (name/date/time):

Received By(name/date/time):

Matthew R. [Signature] 10/2/14 1200



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-144

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/26/2014	11:06	NBH14-0227		TS	126-14LTM							2	X
9/29/2014	8:13	NBH14-0246		TS	128-14LTM							1	X
9/29/2014	8:23	NBH14-0247		TS	128-14LTM							1	X
9/29/2014	8:32	NBH14-0248		TS	128-14LTM							1	X
9/26/2014	9:29	NBH14-0221		TS	138-14LTM							1	X
9/26/2014	9:36	NBH14-0222		TS	138-14LTM							1	X
9/26/2014	9:41	NBH14-0223		TS	138-14LTM							1	X
9/26/2014	8:26	NBH14-0216		TS	152-14LTM							1	X
9/26/2014	8:33	NBH14-0217		TS	152-14LTM							1	X
9/26/2014	8:37	NBH14-0218		TS	152-14LTM							2	X
9/30/2014	14:17	NBH14-0327		TS	204-14LTM							1	X
9/30/2014	14:25	NBH14-0328		TS	204-14LTM							1	X
9/30/2014	14:45	NBH14-0329		TS	204-14LTM							2	X
9/29/2014	15:30	NBH14-0266		TS	207-14LTM							2	X
9/29/2014	15:34	NBH14-0267		TS	207-14LTM							2	X
9/29/2014	15:51	NBH14-0268		TS	207-14LTM							2	X
9/29/2014	14:50	NBH14-0262		TS	208-14LTM							1	X
9/29/2014	14:54	NBH14-0263		TS	208-14LTM							1	X
9/29/2014	15:01	NBH14-0264		TS	208-14LTM							1	X
9/30/2014	13:25	NBH14-0323		TS	211-14LTM							1	X

Relinquished By (name/date/time):

Matthew K. [Signature] 10/2/14 1200

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-145

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	13:33	NBH14-0324		TS	211-14LTM							1	X
9/30/2014	13:51	NBH14-0325		TS	211-14LTM							1	X
9/30/2014	12:24	NBH14-0319		TS	212-14LTM							1	X
9/30/2014	12:32	NBH14-0320		TS	212-14LTM							2	X
9/30/2014	12:54	NBH14-0321		TS	212-14LTM							1	X
9/30/2014	11:34	NBH14-0315		TS	217-14LTM							1	X
9/30/2014	11:40	NBH14-0316		TS	217-14LTM							1	X
9/30/2014	11:52	NBH14-0317		TS	217-14LTM							1	X
9/29/2014	13:02	NBH14-0258		TS	218-14LTM							2	X
9/29/2014	14:02	NBH14-0259		TS	218-14LTM							2	X
9/29/2014	14:14	NBH14-0260		TS	218-14LTM							3	X
9/29/2014	15:04	NBH14-0238		TS	222-14LTM							2	X
9/29/2014	15:09	NBH14-0239		TS	222-14LTM							2	X
9/29/2014	15:20	NBH14-0240		TS	222-14LTM							2	X
9/29/2014	15:44	NBH14-0242		TS	224-14LTM							1	X
9/29/2014	15:48	NBH14-0243		TS	224-14LTM							1	X
9/29/2014	16:00	NBH14-0244		TS	224-14LTM							1	X
9/30/2014	7:44	NBH14-0303		TS	225-14LTM							2	X
9/30/2014	7:53	NBH14-0304		TS	225-14LTM							3	X
9/30/2014	8:08	NBH14-0305		TS	225-14LTM							2	X

Relinquished By (name/date/time):

Matt R. G/L 10/2/14 1200

Received By(name/date/time):



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-146

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	8:34	NBH14-0307		TS	226-14LTM							1	X
9/30/2014	8:44	NBH14-0308		TS	226-14LTM							1	X
9/30/2014	8:47	NBH14-0309		TS	226-14LTM							1	X
9/30/2014	9:44	NBH14-0311		TS	227-14LTM							2	X
9/30/2014	9:52	NBH14-0312		TS	227-14LTM							2	X
9/30/2014	10:20	NBH14-0313		TS	227-14LTM							2	X
9/26/2014	14:12	NBH14-0200		TS	230-14LTM							1	X
9/26/2014	14:18	NBH14-0201		TS	230-14LTM							1	X
9/26/2014	14:33	NBH14-0202		TS	230-14LTM							1	X
9/26/2014	13:20	NBH14-0198		TS	231-14LTM							1	X
9/26/2014	13:30	NBH14-0235		TS	231-14LTM							1	X
9/26/2014	13:50	NBH14-0236		TS	231-14LTM							1	X
9/26/2014	12:15	NBH14-0194		TS	236-14LTM							2	X
9/26/2014	12:23	NBH14-0195		TS	236-14LTM							1	X
9/26/2014	12:38	NBH14-0196		TS	236-14LTM							2	X
9/26/2014	11:15	NBH14-0190		TS	237-14LTM							3	X
9/26/2014	11:30	NBH14-0191		TS	237-14LTM							2	X
9/26/2014	11:45	NBH14-0192		TS	237-14LTM							3	X
9/26/2014	9:29	NBH14-0186		TS	241-14LTM							1	X
9/26/2014	9:39	NBH14-0187		TS	241-14LTM							1	X

Relinquished By (name/date/time):

Received By(name/date/time):

Matthew R. Byle 10/2/14 1200



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-147

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/26/2014	9:58	NBH14-0188		TS	241-14LTM							1	X
9/26/2014	8:18	NBH14-0182		TS	242-14LTM							1	X
9/26/2014	8:27	NBH14-0183		TS	242-14LTM							1	X
9/26/2014	8:45	NBH14-0184		TS	242-14LTM							1	X
9/26/2014	7:23	NBH14-0178		TS	247-14LTM							1	X
9/26/2014	7:31	NBH14-0179		TS	247-14LTM							1	X
9/26/2014		NBH14-0180		TS	247-14LTM							1	X
9/29/2014	10:28	NBH14-0282		TS	323-14LTM							1	X
9/29/2014	10:37	NBH14-0283		TS	323-14LTM							1	X
9/29/2014	10:52	NBH14-0284		TS	323-14LTM							1	X
9/29/2014	11:34	NBH14-0286		TS	324-14LTM							1	X
9/29/2014	11:47	NBH14-0287		TS	324-14LTM							1	X
9/29/2014	11:54	NBH14-0288		TS	324-14LTM							1	X
9/29/2014	12:07	NBH14-0290		TS	325-14LTM							1	X
9/29/2014	12:16	NBH14-0291		TS	325-14LTM							1	X
9/29/2014	12:35	NBH14-0292		TS	325-14LTM							1	X
9/29/2014	9:37	NBH14-0278		TS	331-14LTM							1	X
9/29/2014	9:44	NBH14-0279		TS	331-14LTM							1	X
9/29/2014	10:03	NBH14-0280		TS	331-14LTM							1	X
9/29/2014	8:01	NBH14-0270		TS	332-14LTM							1	X

Relinquished By (name/date/time):

Matthew R. Byl 10/2/14 1200

Received By(name/date/time):

Ship to: Carl Way
Barry Vittor & Associates
8060 Cottage Hill Road
Mobile, Alabama 36695

Samplers Signature: PDS & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

A-148

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	8:18	NBH14-0271		TS	332-14LTM							1	X
9/29/2014	8:28	NBH14-0272		TS	332-14LTM							1	X
9/29/2014	8:52	NBH14-0274		TS	338-14LTM							1	X
9/29/2014	9:01	NBH14-0275		TS	338-14LTM							1	X
9/29/2014	9:18	NBH14-0276		TS	338-14LTM							1	X

Relinquished By (name/date/time):

Ma W R 3/2 10/2/14 1200

Received By(name/date/time):

Attachment C
GPS Calibration Forms

Project No. 100053747	Date: 9/22/14	Recorder: MRF
DGPS (make/model/SN):	Coordinate System and units: NAD83	
Morning dGPS Check		
Time of check (local): 0815	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: North side of dock @ Marine Hydraulics ramp	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: GPSmap 41.64603	Established Longitude/Easting: 70.92185	
Measured Latitude/Northing: 41.646019	Measured Longitude/Easting: 70.921845	
Instrument Measured Displacement (meters): 1.29		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1600	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: South side of dock @ Marine Hydraulics ramp	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645973	Measured Longitude/Easting: 70.921958	
Instrument Measured Displacement (meters): .37		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		
Had to compare 2 GPS models since one used is mounted on vessel GPSmap 76Cx is handheld		
Established coordinates are an average of 30 readings		

Field Team Leader Signature M. Fitzpatrick

Project No. 100053747	Date: 9/23/14	Recorder: M. Fitzpatrick
DGPS (make/model/SN):	Coordinate System and units: NAD83	
Morning dGPS Check		
Time of check (local): 0730	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: South side Marine Hydraulics Ramp	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645975	Measured Longitude/Easting: 70.921954	
Instrument Measured Displacement (meters): .75		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1545	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: South side Marine Hydraulics Ramp	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645974	Measured Longitude/Easting: 70.921958	
Instrument Measured Displacement (meters): .48		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		
Compare GPS units see Check from 9/22/14		

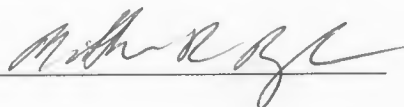
Field Team Leader Signature _____

Project No. 100053747	Date: 9/24/14	Recorder: M. Fitzpatrick
DGPS (make/model/SN):	Coordinate System and units: NAD83	
Morning dGPS Check		
Time of check (local): 0715	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: South side of Dock @ Marine Hydraulics ramp	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645977	Measured Longitude/Easting: 70.921961	
Instrument Measured Displacement (meters): 0.78 m		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1550	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: South side of Dock @ Marine Hydraulics Ramp	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645975	Measured Longitude/Easting: 70.921964	
Instrument Measured Displacement (meters): 0.65		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations: Compare GPS units		

Field Team Leader Signature _____

Project No. 100053747	Date: 9/25/14	Recorder: M. Fitzpatrick
DGPS (make/model/SN):	Coordinate System and units: NAD83	
Morning dGPS Check		
Time of check (local): 0715	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: S. side of dock @ Marine Hydraulics	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645972	Measured Longitude/Easting: 70.921968	
Instrument Measured Displacement (meters): 0.70		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1600	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: South side of Dock @ marine Hydraulics	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645974	Measured Longitude/Easting: 70.921963	
Instrument Measured Displacement (meters): 0.51		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations: Compare 2 GPS units		

Field Team Leader Signature



Project No. 100053747	Date: 9/26/14	Recorder: M. Fitzpatrick
DGPS (make/model/SN):	Coordinate System and units: NAD83	
Morning dGPS Check		
Time of check (local): 0700	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: S. side of Dock @ Marine Hydraulics	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.64576	Measured Longitude/Easting: 70.921965	
Instrument Measured Displacement (meters): 0.79		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES <input type="radio"/> NO		
Afternoon dGPS Check		
Time of check (local): 1515	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: N. side of Dock @ marine Hydraulics	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64603	Established Longitude/Easting: 70.92185	
Measured Latitude/Northing: 41.646022	Measured Longitude/Easting: 70.921848	
Instrument Measured Displacement (meters): 0.91		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES <input type="radio"/> NO		
Field Activities / Comments / Observations: Compare GPS units		

Field Team Leader Signature M. Fitzpatrick

Project No. 100053747	Date: 9/29/14	Recorder: M. Fitzpatrick
DGPS (make/model/SN):	Coordinate System and units: NAD 83	
Morning dGPS Check		
Time of check (local): 0700	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: S. side of Marine Hydraulics Dock	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64597	Established Longitude/Easting: 70.92196	
Measured Latitude/Northing: 41.645974	Measured Longitude/Easting: 70.921966	
Instrument Measured Displacement (meters): .67		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1620	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: North Dock 2nd North of North ramp dock	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64602	Established Longitude/Easting: 70.92187	
Measured Latitude/Northing: 41.646023	Measured Longitude/Easting: 70.921875	
Instrument Measured Displacement (meters): .53		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations: Compare GPS units		

Field Team Leader Signature M. Fitzpatrick

Project No. 100053747	Date: 9/30/14	Recorder: M. Fitzpatrick
DGPS (make/model/SN):	Coordinate System and units: NAD83	
Morning dGPS Check		
Time of check (local): 0700	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: North side of North slip	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64602	Established Longitude/Easting: 70.92187	
Measured Latitude/Northing: 41.646026	Measured Longitude/Easting: 70.921877	
Instrument Measured Displacement (meters): 0.89		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1530	DGPS Estimate of Accuracy (PDOP): ± 3 m	
Benchmark or Reference Point ID: North side of North slip	Benchmark or Reference Point Established By: M. Fitzpatrick	
Established Latitude/Northing: 41.64602	Established Longitude/Easting: 70.92187	
Measured Latitude/Northing: 41.646023	Measured Longitude/Easting: 70.92188	
Instrument Measured Displacement (meters): 0.74		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		

Field Team Leader Signature M. Fitzpatrick

Battelle

The Business of Innovation

Project No. 100053747	Date: 9/22/14	Recorder: M. Walsh
DGPS (make/model/SN): Garmin 76CX	Coordinate System and units:	
Morning dGPS Check		
Time of check (local): 0716	DGPS Estimate of Accuracy (PDOP): ±9"	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65909	Measured Longitude/Easting: 70.92191	
Instrument Measured Displacement (meters): 3		
Displacement Acceptable? (≤ 3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1703	DGPS Estimate of Accuracy (PDOP): ±10"	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65908	Measured Longitude/Easting: 70.92191	
Instrument Measured Displacement (meters): 3		
Displacement Acceptable? (≤ 3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		

Field Team Leader Signature _____

Battelle

The Business of Innovation

Project No. 100053747	Date: 9/23/14	Recorder: PDS
DGPS (make/model/SN): Garmin 76CX	Coordinate System and units:	
Morning dGPS Check		
Time of check (local): 0710	DGPS Estimate of Accuracy (PDOP): ±9'	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65910	Measured Longitude/Easting: 70.92191	
Instrument Measured Displacement (meters): 3		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 16:55	DGPS Estimate of Accuracy (PDOP): 13m	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65909	Measured Longitude/Easting: 70.92191	
Instrument Measured Displacement (meters): 0		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		

Field Team Leader Signature _____

25 *SW* 9/25/14

Project No. 100053747	Date: 24-Sep-14	Recorder: PDS
DGPS (make/model/SN): Garmin 76CX	Coordinate System and units:	
Morning dGPS Check		
Time of check (local): 0708	DGPS Estimate of Accuracy (PDOP): ± 9'	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65908	Measured Longitude/Easting: 70.92192	
Instrument Measured Displacement (meters): 3		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 17:00	DGPS Estimate of Accuracy (PDOP): ± 9'	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65911	Measured Longitude/Easting: 70.92191	
Instrument Measured Displacement (meters): 2m		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		

Field Team Leader Signature _____

Battelle

The Business of Innovation

Project No. 100053747	Date: 9/26/14	Recorder: M. Walsh
DGPS (make/model/SN): Garmin GPSmap 76Cx	Coordinate System and units:	
Morning dGPS Check		
Time of check (local): 0628	DGPS Estimate of Accuracy (PDOP): ± 9ft	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65908	Measured Longitude/Easting: 70.92190	
Instrument Measured Displacement (meters): 2m		
Displacement Acceptable? (≤ 3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1610	DGPS Estimate of Accuracy (PDOP): ± 9'	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65908	Measured Longitude/Easting: 70.92190	
Instrument Measured Displacement (meters): 2m		
Displacement Acceptable? (≤ 3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		

Field Team Leader Signature _____

Battelle

The Business of Innovation

Project No. 100053747	Date: 29-Sep-14	Recorder: PDS
DGPS (make/model/SN): Garmin GPSMap76CX	Coordinate System and units:	
Morning dGPS Check		
Time of check (local): PDS 29-Sep-14 Trailer 0650	DGPS Estimate of Accuracy (PDOP): ±9'	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65909	Measured Longitude/Easting: 70.92189	
Instrument Measured Displacement (meters): 3		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Afternoon dGPS Check		
Time of check (local): 1639	DGPS Estimate of Accuracy (PDOP): ±9'	
Benchmark or Reference Point ID: Trailer	Benchmark or Reference Point Established By: M. Walsh	
Established Latitude/Northing: 41.65909	Established Longitude/Easting: 70.92191	
Measured Latitude/Northing: 41.65910	Measured Longitude/Easting: 70.92192	
Instrument Measured Displacement (meters): 0		
Displacement Acceptable? (≤3 m): <input checked="" type="radio"/> YES NO		
Field Activities / Comments / Observations:		

Field Team Leader Signature _____

Attachment D
Daily Tailgate Safety Meeting
Record Forms

TAILGATE SAFETY MEETING RECORD FORM

Date 9/22/14 Time (local) 0800 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: Formalin

Other topics: _____

Attendees

Name (printed)

Signature

Matt Atypatrich Matt Atypatrich

Ken Thomson [Signature]

JARRETT DRAKE [Signature]

Patrick O'Keefe [Signature]

Field Team Leader Review and Approval Matt Atypatrich

Reviewed/Approved Date 9/22/14

TAILGATE SAFETY MEETING RECORD FORM

Date 9/23/14 Time (local) 0730 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D



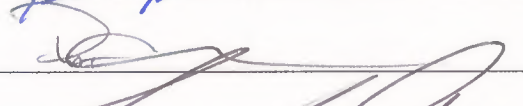
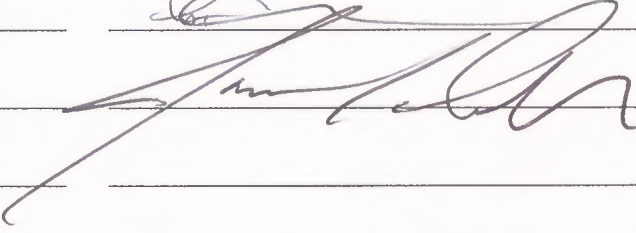
Hazards of Chemicals Present: Sediments: PCBs, Metals

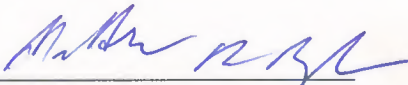
Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: Formalin

Other topics: _____

Attendees

Name (printed)	Signature
<u>Matt Klyachik</u>	
<u>Ken Thomson</u>	
<u>PATRICK CURRAN</u>	
<u>JARRETT DRAKE</u>	
_____	_____
_____	_____
_____	_____
_____	_____

Field Team Leader Review and Approval 

Reviewed/Approved Date 9/23/14

TAILGATE SAFETY MEETING RECORD FORM

Date 9/24/14 Time (local) 0730 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: Formalin

Other topics: _____

Attendees

Name (printed)	Signature
<u>Matt Atpatnick</u>	<u>[Signature]</u>
<u>Patrick Curran</u>	<u>[Signature]</u>
<u>Ken Thomson</u>	<u>[Signature]</u>
<u>JARRETT DRAKE</u>	<u>[Signature]</u>
_____	_____
_____	_____
_____	_____
_____	_____

Field Team Leader Review and Approval [Signature]

Reviewed/Approved Date 9/24/14

TAILGATE SAFETY MEETING RECORD FORM

Date 09/25/2014 Time (local) 0730 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D





Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: Formalin

Other topics: _____

Attendees

Name (printed)	Signature
<u>PATRICK CURRAN</u>	
<u>Ben Maher</u>	
<u>JARREN DRAKE</u>	
<u>Matt Kstepatnick</u>	
_____	_____
_____	_____
_____	_____
_____	_____

Field Team Leader Review and Approval 

Reviewed/Approved Date 9/25/14

TAILGATE SAFETY MEETING RECORD FORM

Date 09/26/2014 Time (local) 0645 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: Formalin

Other topics: _____

Attendees

Name (printed)	Signature
<u>PATRICK CURRAN</u>	
<u>JARRETT DRAKE</u>	
<u>Math Stepatnick</u>	
<u>Ben Maher</u>	<u>Ben Maher</u>
_____	_____
_____	_____
_____	_____
_____	_____

Field Team Leader Review and Approval 

Reviewed/Approved Date 9/26/14

TAILGATE SAFETY MEETING RECORD FORM

Date 9/29/14 Time (local) 0730 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: formalin

Other topics: _____

Attendees

Name (printed)	Signature
<u>Matt Hepatich</u>	<u>[Signature]</u>
<u>Adrianna OASE</u>	<u>[Signature]</u>
<u>JARRETT DRAKE</u>	<u>[Signature]</u>
<u>PATRICK CURRAN</u>	<u>[Signature]</u>
_____	_____
_____	_____
_____	_____
_____	_____

Field Team Leader Review and Approval [Signature]

Reviewed/Approved Date 9/29/14

TAILGATE SAFETY MEETING RECORD FORM

Date 9/30/14 Time (local) 0730 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: Formalin

Other topics: _____

Attendees

Name (printed) Signature

Matt Fitzpatrick [Signature]

Patrick Curran [Signature]

JARRETT DRAKE [Signature]

Adrianna Ortiz [Signature]

Field Team Leader Review and Approval [Signature]

Reviewed/Approved Date 9/30/14

TAILGATE SAFETY MEETING RECORD FORM

Date 09-22-14 Time (local) 0730 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: _____

Other topics: _____

Attendees

Name (printed) Signature

Paul Sokoloff Paul Sokoloff

Sam Guimaraes [Signature]

Mike Walsh Mike Walsh

Field Team Leader Review and Approval [Signature]

Reviewed/Approved Date 10/2/14

TAILGATE SAFETY MEETING RECORD FORM

Date 23-sep-14 Time (local) 0700 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: _____

Other topics: _____

Attendees

Name (printed)

Signature

Paul Sokoloff

Paul Sokoloff

Alex Mansfield

Alex Mansfield

Sam Guimaraes

Sam Guimaraes

Field Team Leader Review and Approval [Signature]

Reviewed/Approved Date 10/2/14

TAILGATE SAFETY MEETING RECORD FORM

Date 25-Sep-14 ~~24-Sep-14~~ PPS ^{25-Sep-14} Time (local) 0730 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: _____

Other topics: _____

Attendees

Name (printed)	Signature
<u>Paul Sokoloff</u>	<u>Paul Sokoloff</u>
<u>Alex Mansfield</u>	<u>Alex Mansfield</u>
<u>Sam Girmasias</u>	<u>Sam Girmasias</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Field Team Leader Review and Approval [Signature]

Reviewed/Approved Date 10/2/14

TAILGATE SAFETY MEETING RECORD FORM

Date 26-Sep-14 Time (local) 0700 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical

Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: _____

Other topics: _____

Attendees

Name (printed)

Signature

Paul Sokoloff


Paul Sokoloff

Mike Walsh

Mike Walsh

Sam Guimaraes

Sam Guimaraes

Field Team Leader Review and Approval 

Reviewed/Approved Date 10/2/14

TAILGATE SAFETY MEETING RECORD FORM

Date 29-September-14 Time (local) 0700 Project Number: 100053747

Project Name: New Bedford Harbor Long Term Monitoring

Specific Location: New Bedford Harbor

Type of Work: Grab Sampling, Seiving

Chemicals present: Primary contaminants of interest: PCBs, Metals

SAFETY TOPICS DISCUSSED

Protective Clothing/Equipment: Level D

Hazards of Chemicals Present: Sediments: PCBs, Metals

Physical Hazards: Slips, trips, falls, drowning, lifting heavy objects, weather, pinch points in the Grab

Special hazards: _____

Other topics: _____

Attendees

Name (printed)

Signature

Paul Sokoloff

Paul Sokoloff

Sam Guimaraes

[Signature]

Betsy Curie

[Signature]

Alex Mansfield

[Signature]

Field Team Leader Review and Approval [Signature]

Reviewed/Approved Date 10 / 2 / 14

Appendix B
Surface Sediment Grab Photographs

This page left intentionally blank.

Representative photos of the grab samples taken during the New Bedford Harbor LTM VI survey.



Representative photos of the grab samples taken during the New Bedford Harbor LTM VI survey.



Representative photos of the grab samples taken during the New Bedford Harbor LTM VI survey.



This page left intentionally blank.

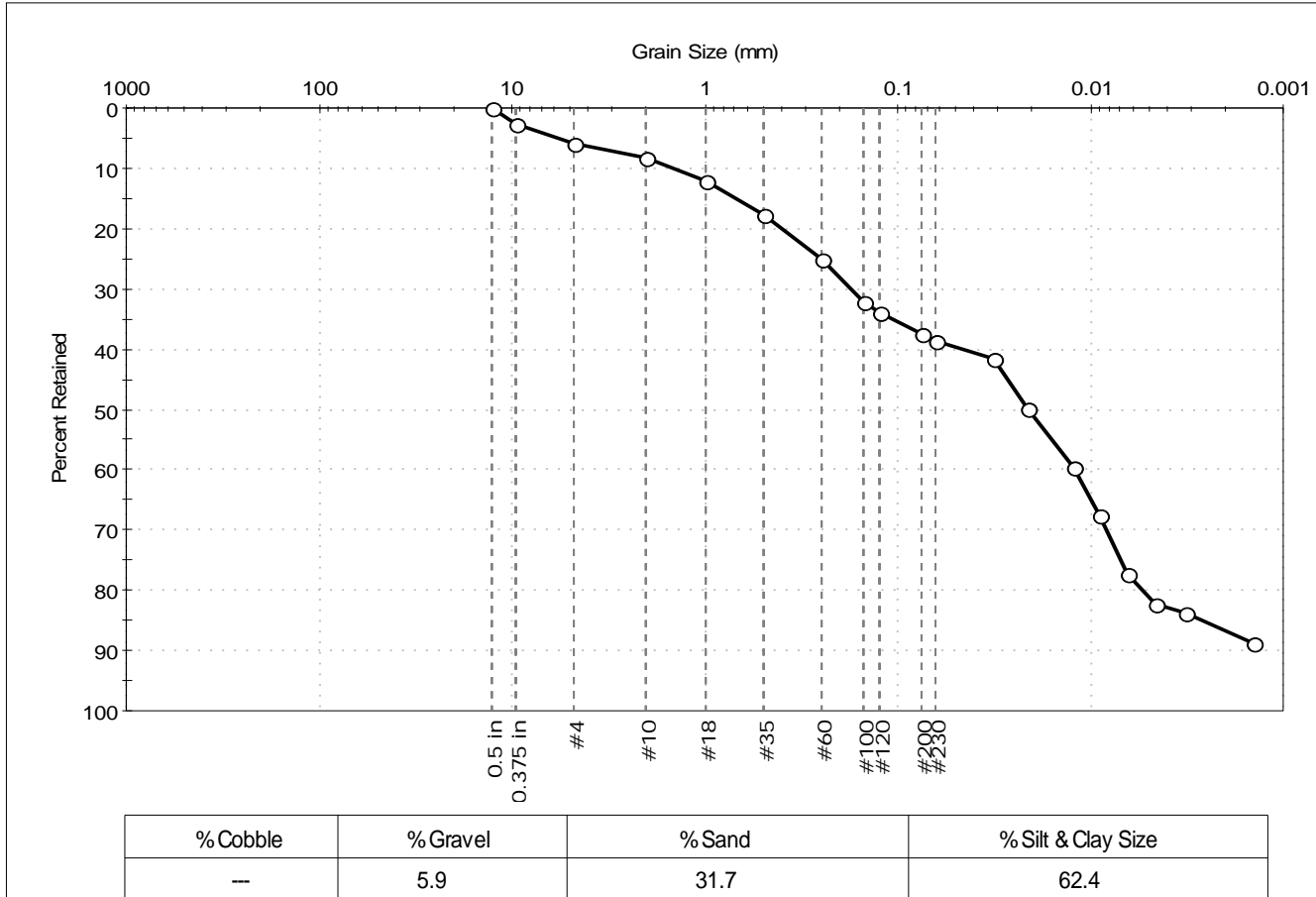
Appendix C
Grain Size Laboratory Data Report

This page left intentionally blank.



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 120-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0001	Test Date: 10/14/14	Depth: ---	Test Id: 309447
Test Comment: ---	Sample Description: Wet, dark olive gray sandy silt	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	3		
#4	4.75	6		
#10	2.00	8		
#18	1.00	12		
#35	0.50	18		
#60	0.25	25		
#100	0.15	32		
#120	0.12	34		
#200	0.075	38		
#230	0.063	39		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	42		
---	0.0213	50		
---	0.0123	59		
---	0.0090	68		
---	0.0064	77		
---	0.0046	82		
---	0.0033	84		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.6965 mm	D ₃₀ = 0.0083 mm
D ₆₀ = 0.0457 mm	D ₁₅ = 0.0026 mm
D ₅₀ = 0.0209 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

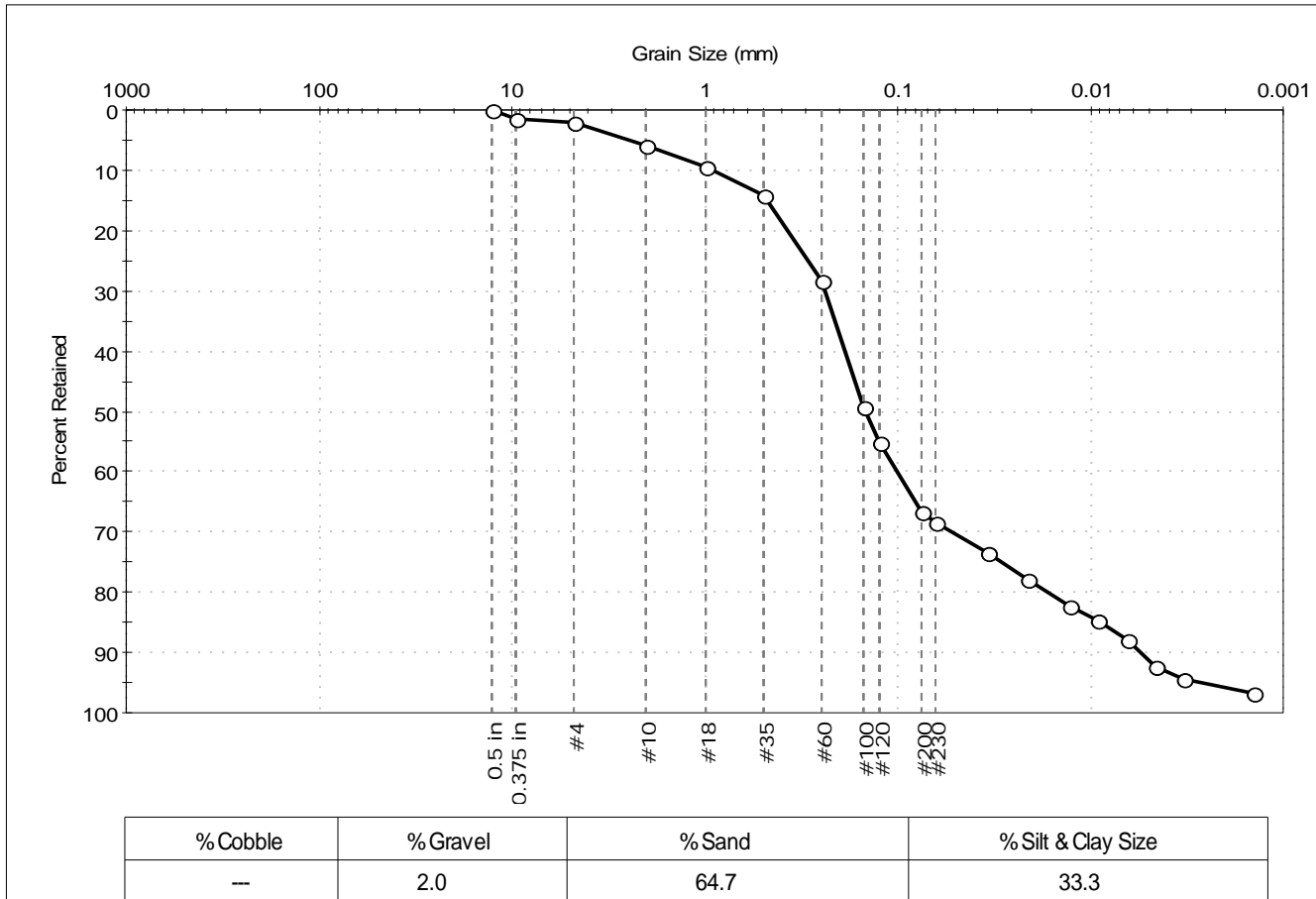
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 120-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0002	Test Date: 10/23/14	Test Id: 309448	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	1		
#4	4.75	2		
#10	2.00	6		
#18	1.00	9		
#35	0.50	14		
#60	0.25	28		
#100	0.15	49		
#120	0.12	55		
#200	0.075	67		
#230	0.063	68		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	74		
---	0.0214	78		
---	0.0130	82		
---	0.0092	85		
---	0.0064	88		
---	0.0046	92		
---	0.0033	94		
---	0.0014	97		

Coefficients

D ₈₅ = 0.4816 mm	D ₃₀ = 0.0517 mm
D ₆₀ = 0.1876 mm	D ₁₅ = 0.0088 mm
D ₅₀ = 0.1463 mm	D ₁₀ = 0.0055 mm
C _u = 34.109	C _c = 2.591

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

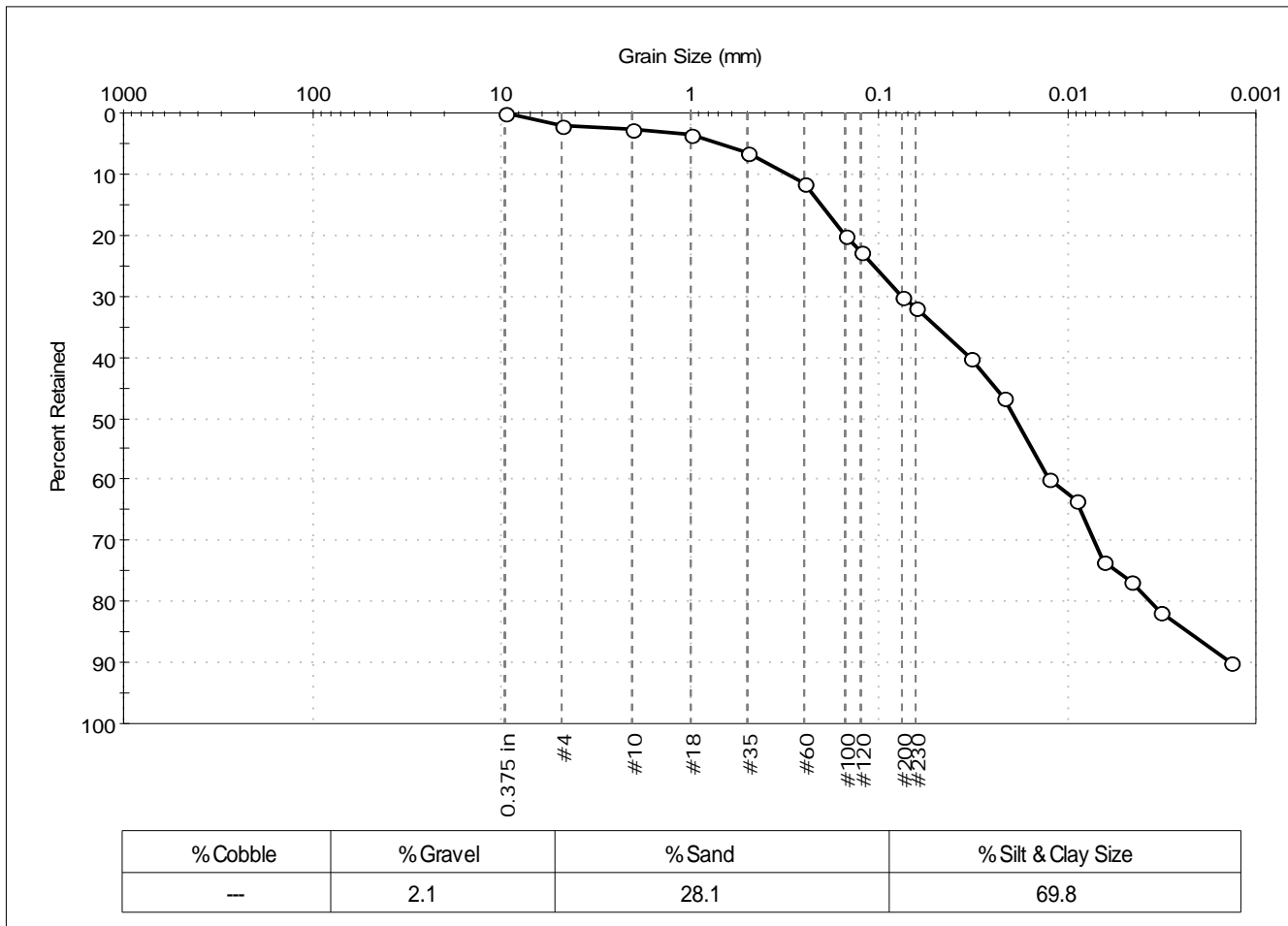
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 120-14LTM	Sample Type: bag
Sample ID: NBH14-0003	Test Date: 10/16/14
Depth: ---	Test Id: 309449
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark gray sandy silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	3		
#18	1.00	4		
#35	0.50	6		
#60	0.25	12		
#100	0.15	20		
#120	0.12	23		
#200	0.075	30		
#230	0.063	32		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	40		
---	0.0215	47		
---	0.0125	60		
---	0.0089	63		
---	0.0064	73		
---	0.0046	77		
---	0.0032	82		
---	0.0014	90		

<u>Coefficients</u>	
D ₈₅ = 0.2032 mm	D ₃₀ = 0.0072 mm
D ₆₀ = 0.0324 mm	D ₁₅ = 0.0023 mm
D ₅₀ = 0.0188 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

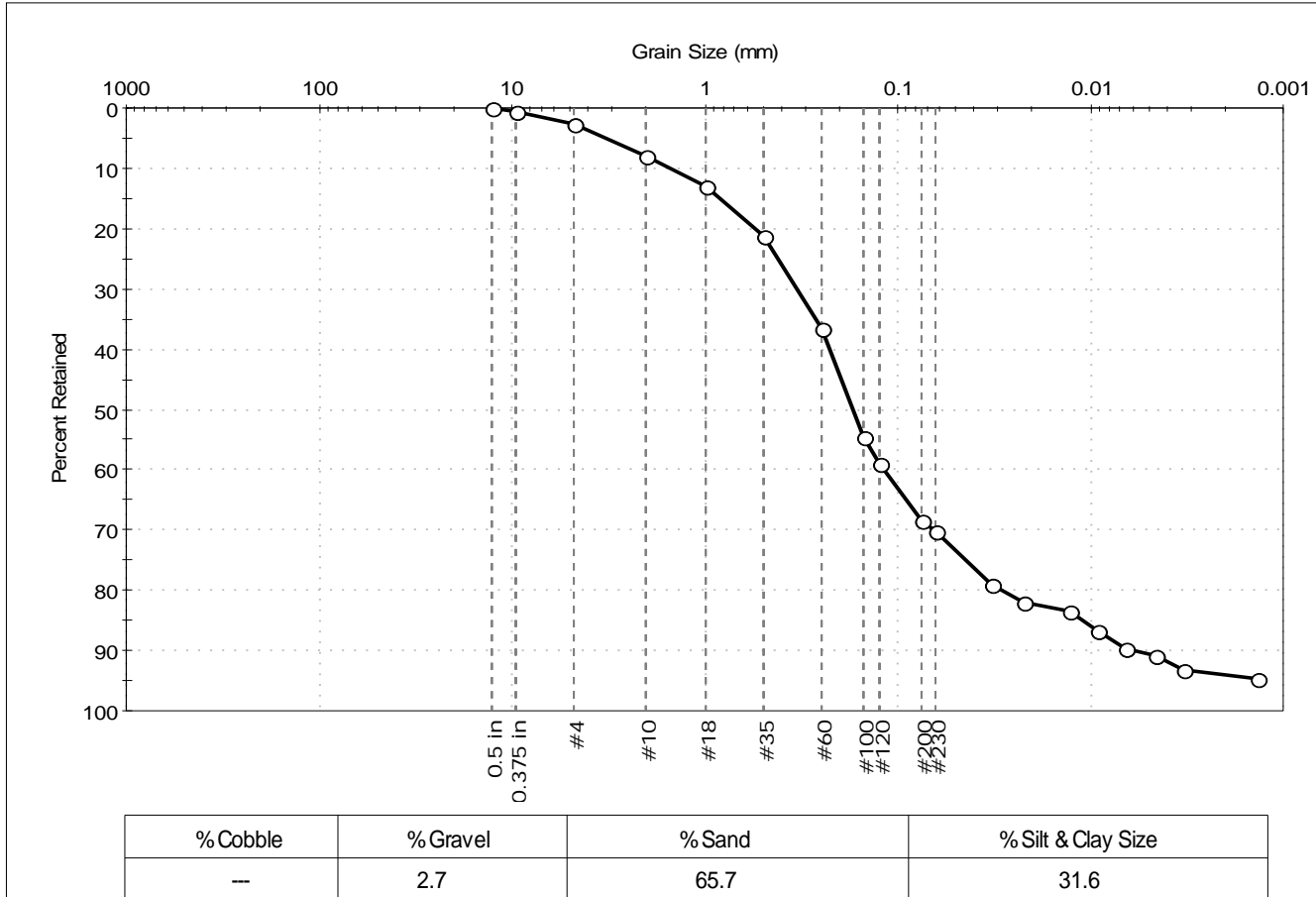
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 120-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0004	Test Date: 10/20/14	Test Id: 309450	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark greenish gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	1		
#4	4.75	3		
#10	2.00	8		
#18	1.00	13		
#35	0.50	21		
#60	0.25	37		
#100	0.15	55		
#120	0.12	59		
#200	0.075	68		
#230	0.063	70		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	79		
---	0.0221	82		
---	0.0127	84		
---	0.0092	87		
---	0.0065	90		
---	0.0047	91		
---	0.0033	93		
---	0.0014	95		

Coefficients

D ₈₅ = 0.8526 mm	D ₃₀ = 0.0645 mm
D ₆₀ = 0.2267 mm	D ₁₅ = 0.0110 mm
D ₅₀ = 0.1711 mm	D ₁₀ = 0.0060 mm
C _u = 37.783	C _c = 3.059

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

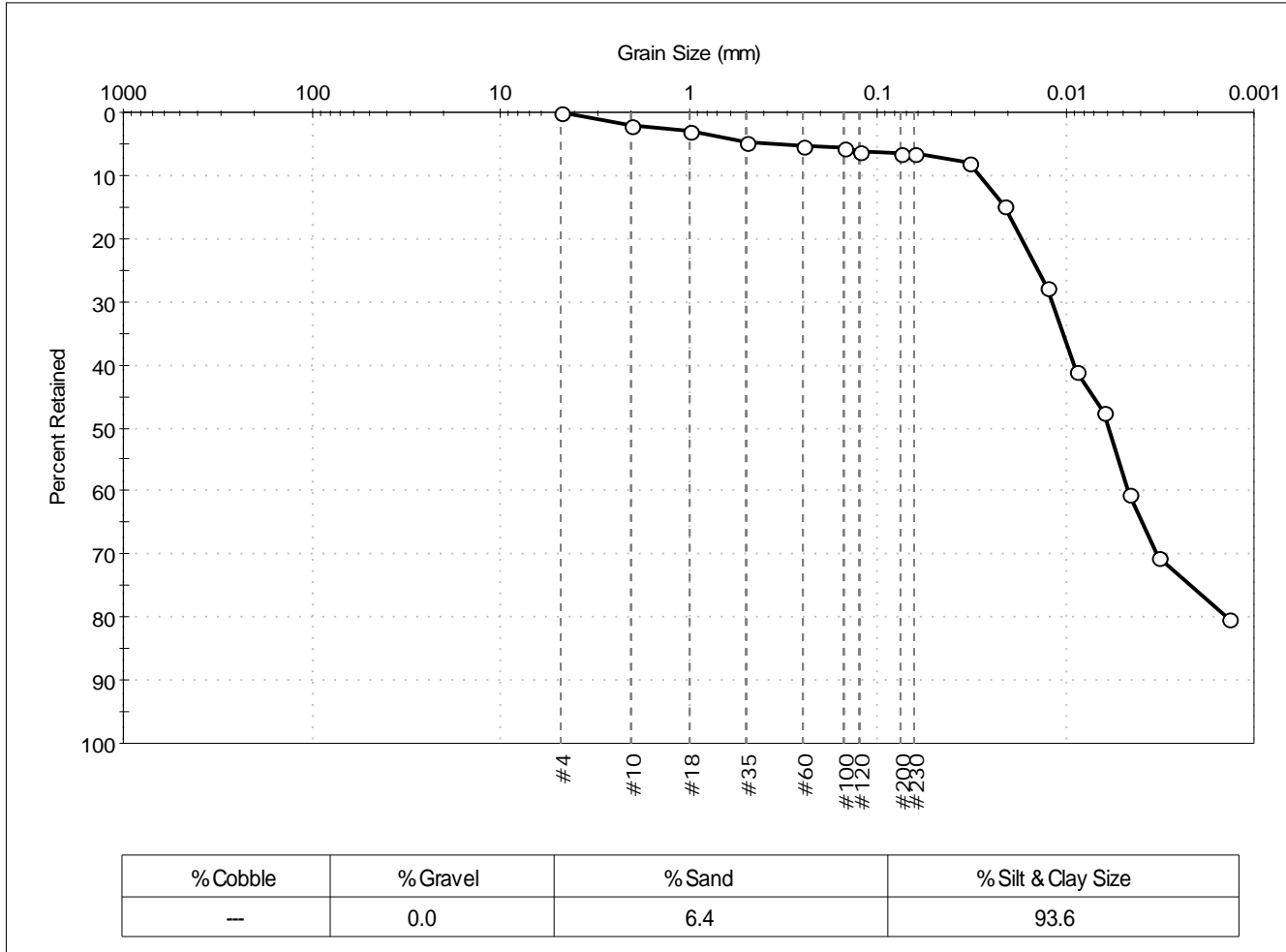
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	125-14LTM	Sample Type:	bag
Sample ID:	NBH14-0005	Test Date:	10/16/14
Depth:	---	Test Id:	309451
Test Comment:	---		
Sample Description:	Wet, dark gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	3		
#35	0.50	5		
#60	0.25	5		
#100	0.15	6		
#120	0.12	6		
#200	0.075	6		
#230	0.063	7		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0324	8		
---	0.0210	15		
---	0.0126	28		
---	0.0089	41		
---	0.0063	47		
---	0.0046	61		
---	0.0033	70		
---	0.0014	80		

<u>Coefficients</u>	
D ₈₅ = 0.0207 mm	D ₃₀ = 0.0033 mm
D ₆₀ = 0.0091 mm	D ₁₅ = N/A
D ₅₀ = 0.0059 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

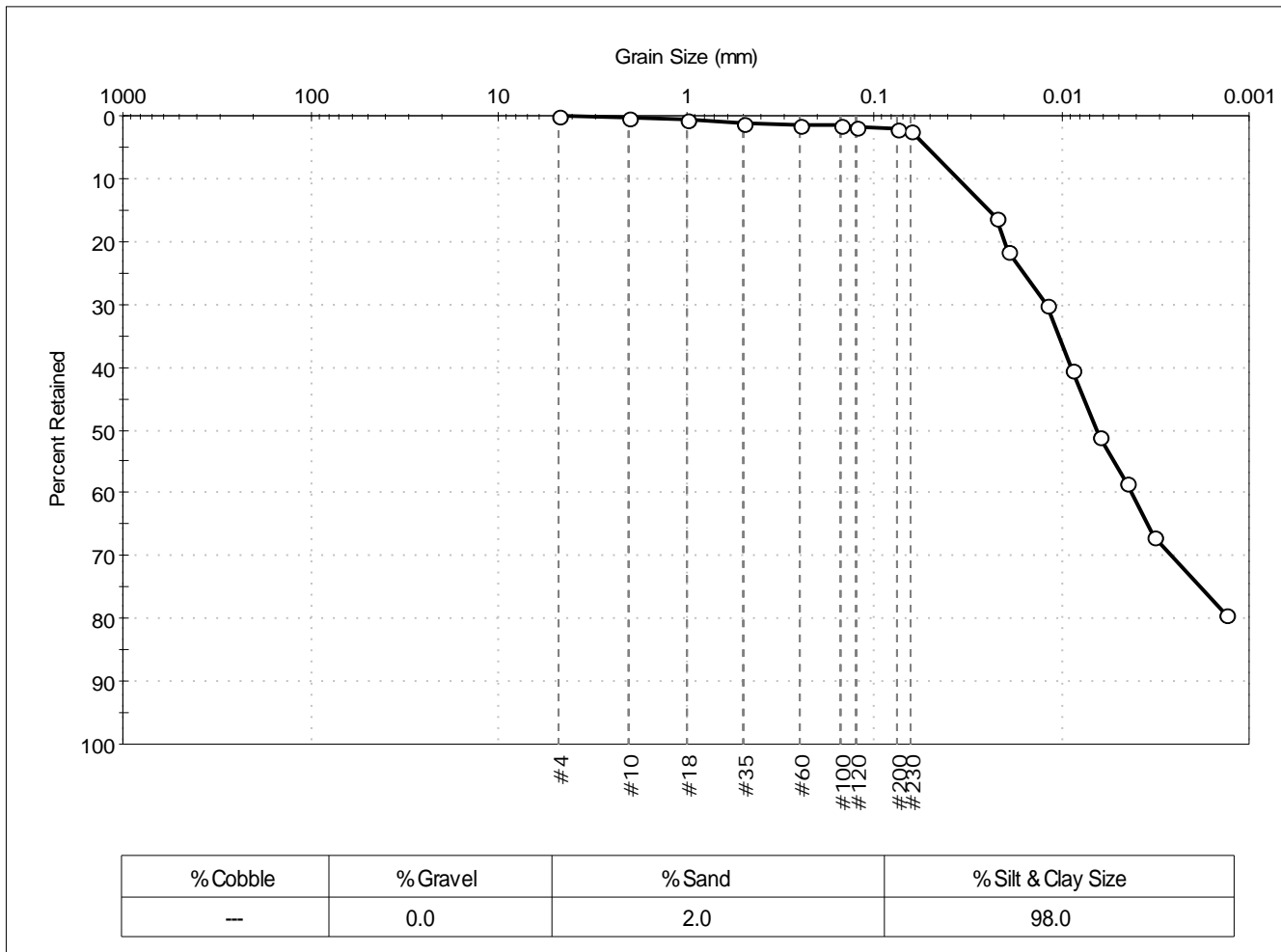
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 125-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0006	Test Date: 10/14/14	Test Id: 309452	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	2		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0223	16		
---	0.0192	21		
---	0.0120	30		
---	0.0087	41		
---	0.0063	51		
---	0.0045	58		
---	0.0032	67		
---	0.0013	79		

<u>Coefficients</u>	
D ₈₅ = 0.0246 mm	D ₃₀ = 0.0026 mm
D ₆₀ = 0.0088 mm	D ₁₅ = N/A
D ₅₀ = 0.0065 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

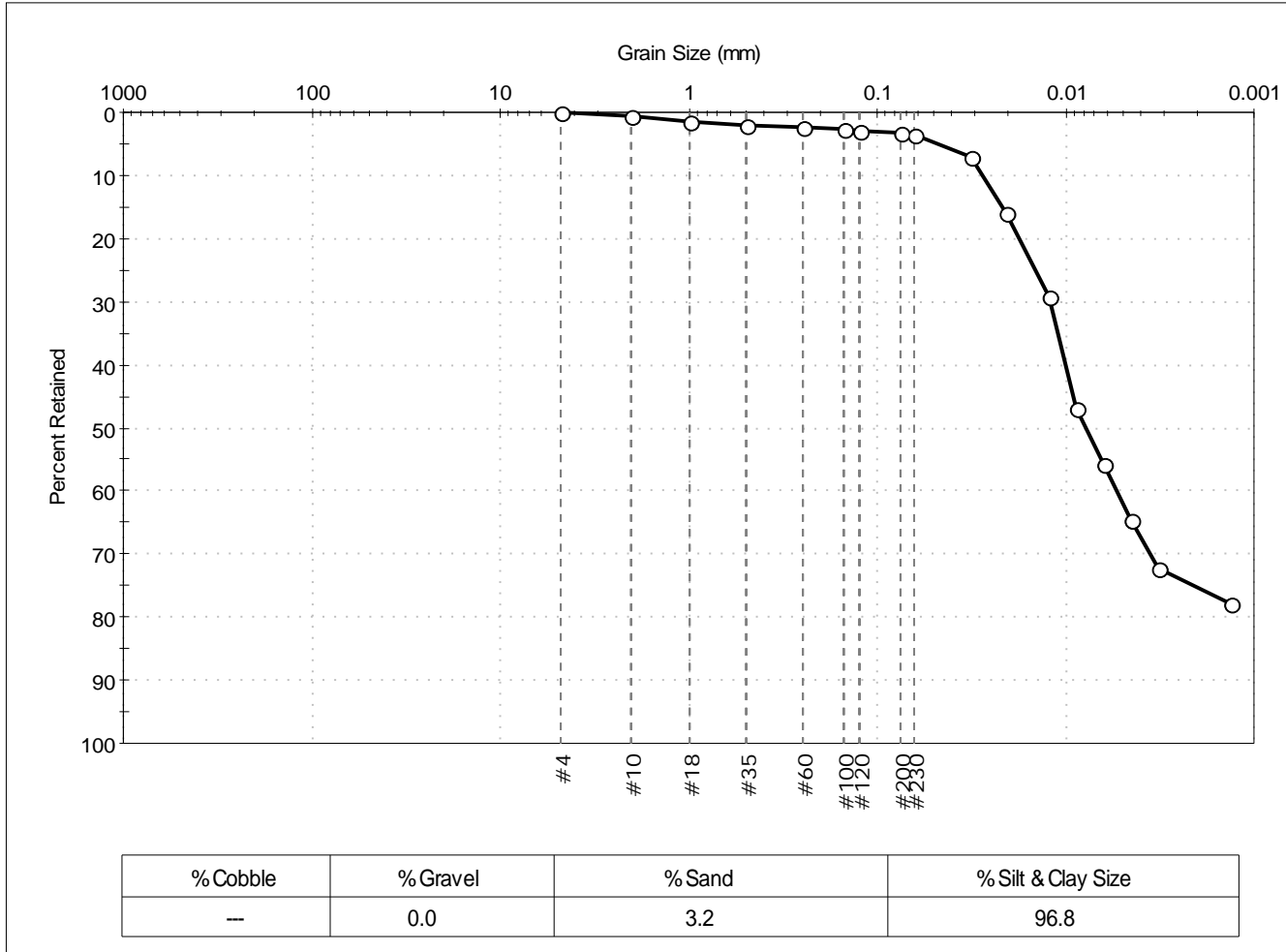
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 125-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0007	Test Date: 10/16/14	Test Id: 309453	
Depth: ---	Test Comment: ---	Sample Description: Wet, greenish gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	2		
#60	0.25	2		
#100	0.15	3		
#120	0.12	3		
#200	0.075	3		
#230	0.063	4		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	7		
---	0.0209	16		
---	0.0121	29		
---	0.0087	47		
---	0.0063	56		
---	0.0045	65		
---	0.0032	72		
---	0.0013	78		

<u>Coefficients</u>	
D ₈₅ = 0.0217 mm	D ₃₀ = 0.0036 mm
D ₆₀ = 0.0099 mm	D ₁₅ = N/A
D ₅₀ = 0.0077 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

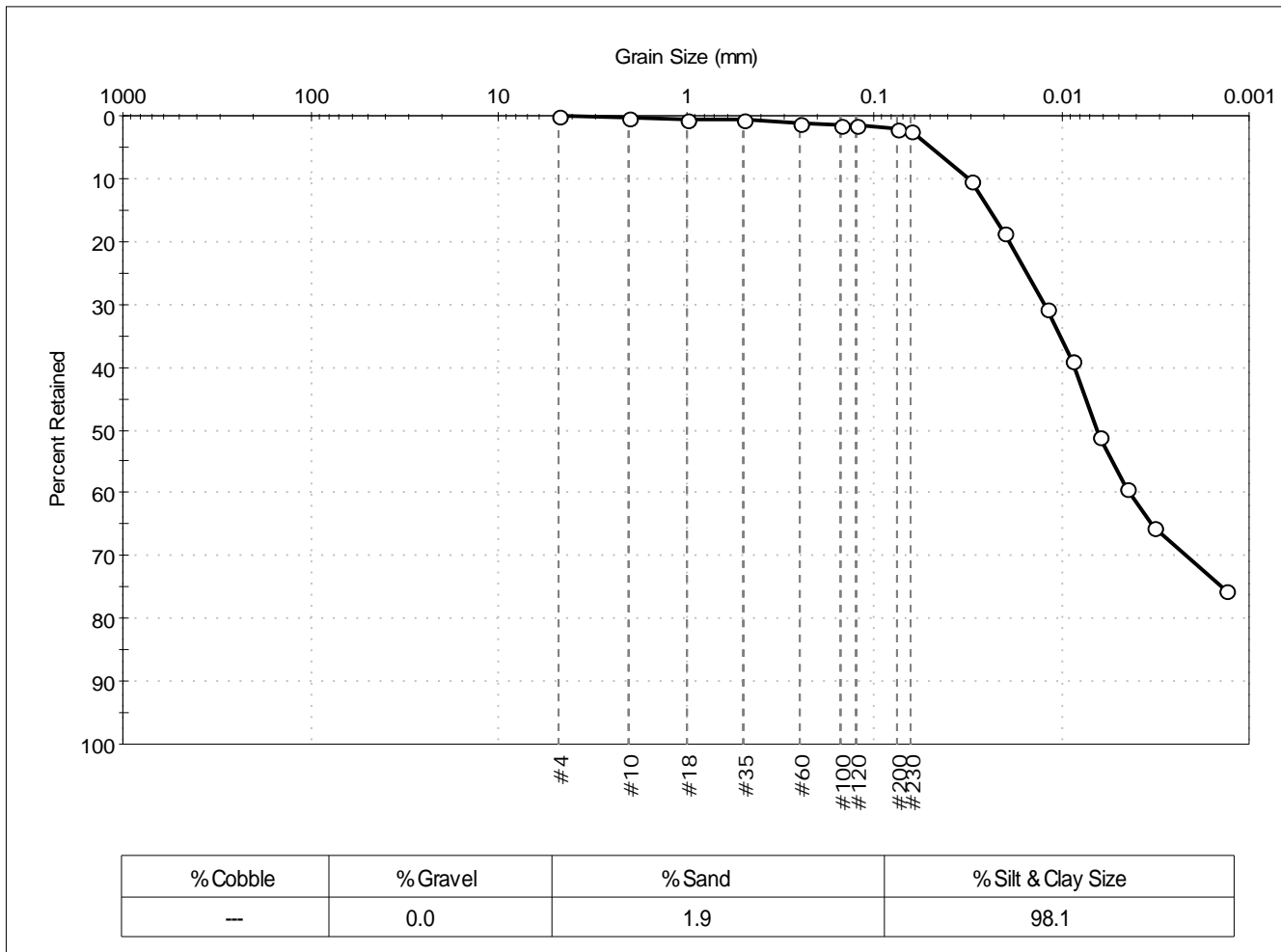
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 125-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0008
 Test Date: 10/16/14
 Checked By: jdt
 Depth: ---
 Test Id: 309454
 Test Comment: ---
 Sample Description: Wet, olive green silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	2		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0302	10		
---	0.0202	18		
---	0.0120	31		
---	0.0087	39		
---	0.0063	51		
---	0.0045	59		
---	0.0032	65		
---	0.0013	76		

<u>Coefficients</u>	
D ₈₅ = 0.0240 mm	D ₃₀ = 0.0021 mm
D ₆₀ = 0.0084 mm	D ₁₅ = N/A
D ₅₀ = 0.0065 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

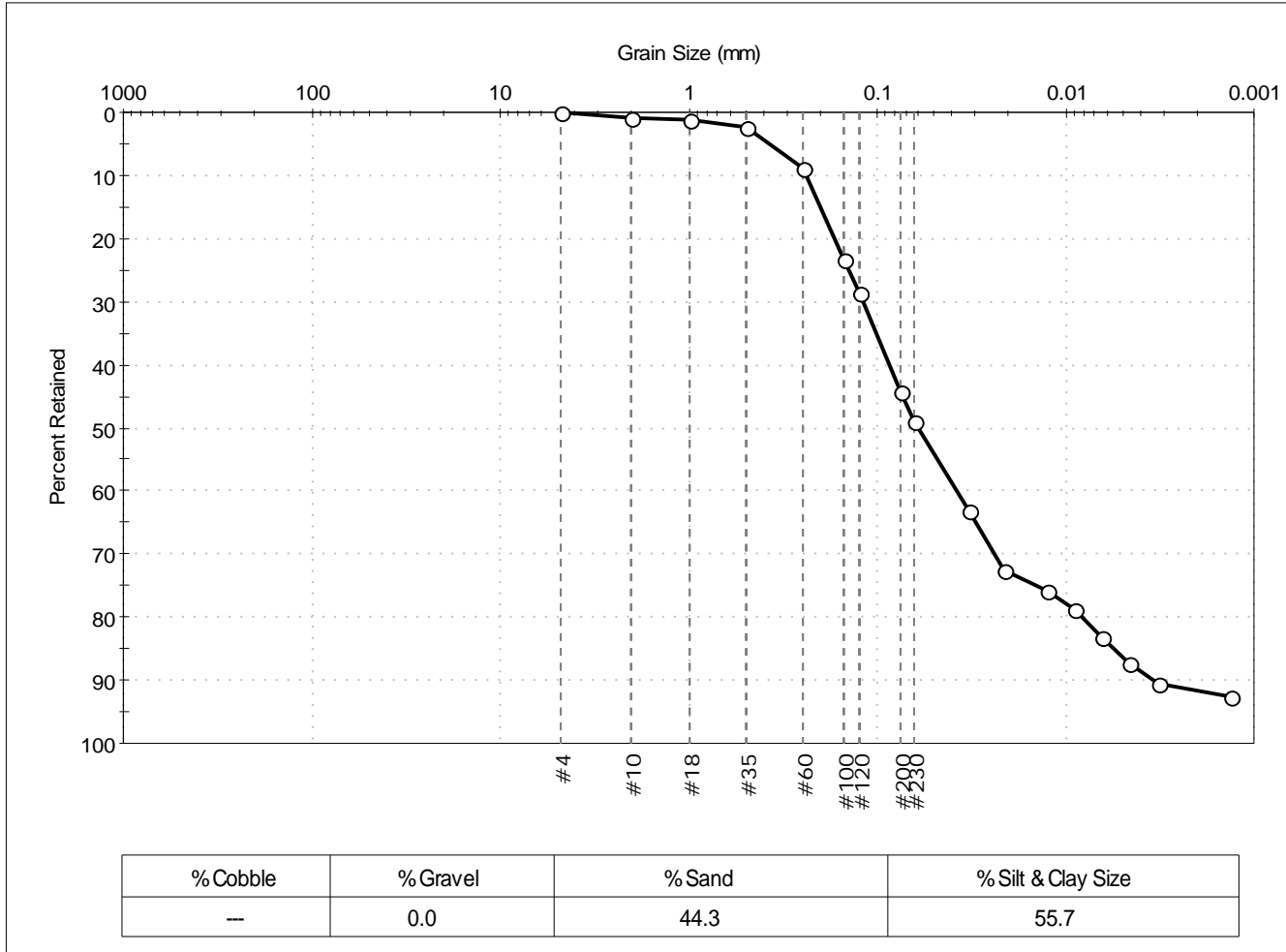
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 130-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0009	Test Date: 10/23/14	Test Id: 309455	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	1		
#35	0.50	2		
#60	0.25	9		
#100	0.15	23		
#120	0.12	29		
#200	0.075	44		
#230	0.063	49		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	63		
---	0.0213	73		
---	0.0125	76		
---	0.0090	79		
---	0.0064	83		
---	0.0046	87		
---	0.0032	90		
---	0.0013	93		

<u>Coefficients</u>	
D ₈₅ = 0.2013 mm	D ₃₀ = 0.0239 mm
D ₆₀ = 0.0863 mm	D ₁₅ = 0.0055 mm
D ₅₀ = 0.0603 mm	D ₁₀ = 0.0034 mm
C _u = 25.382	C _c = 1.947

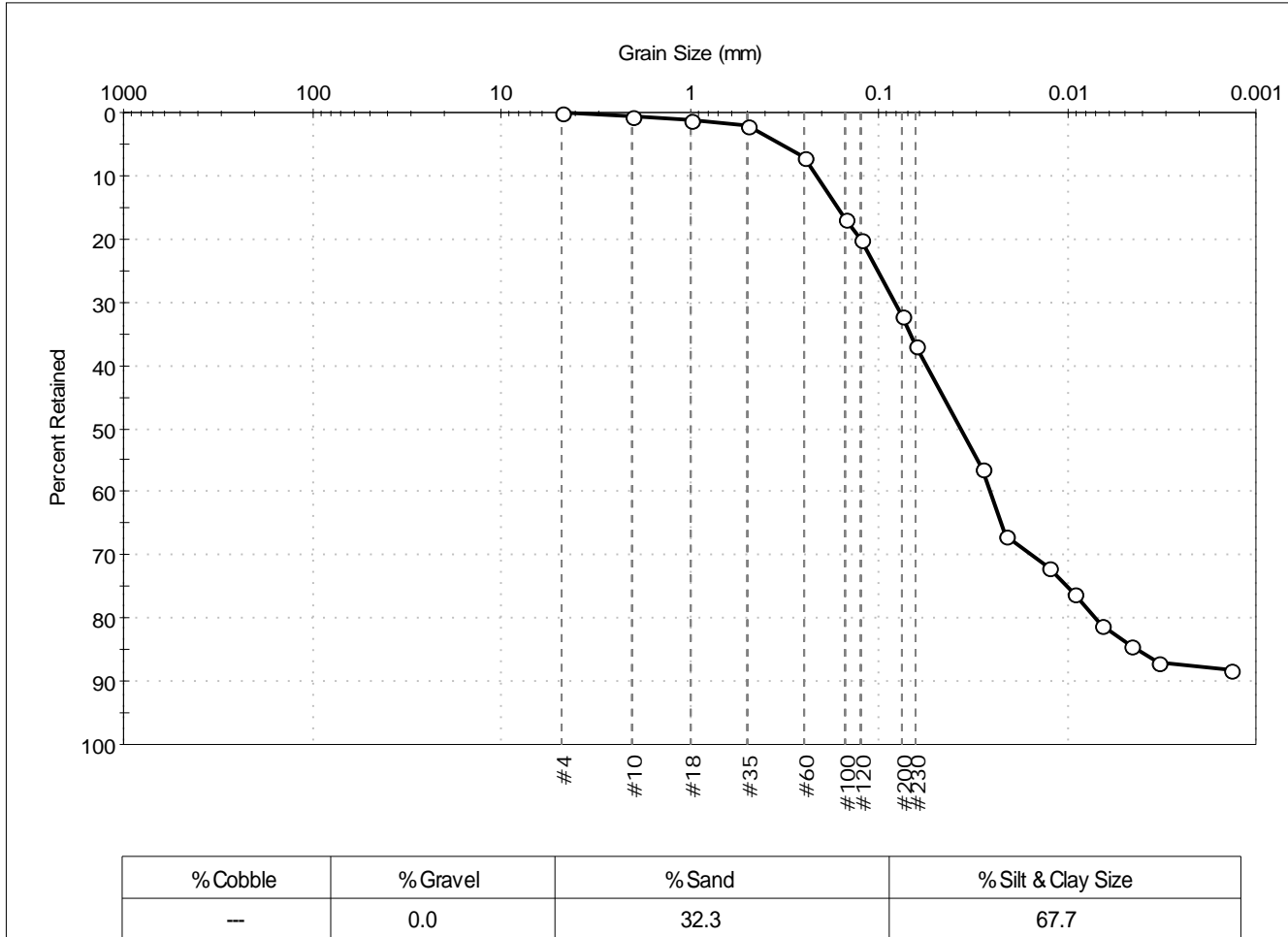
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 130-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0010	Test Date: 10/21/14	Test Id: 309456	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	7		
#100	0.15	17		
#120	0.12	20		
#200	0.075	32		
#230	0.063	37		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0283	56		
---	0.0210	67		
---	0.0127	72		
---	0.0091	76		
---	0.0065	81		
---	0.0047	84		
---	0.0033	87		
---	0.0014	88		

<u>Coefficients</u>	
D ₈₅ = 0.1649 mm	D ₃₀ = 0.0155 mm
D ₆₀ = 0.0553 mm	D ₁₅ = 0.0042 mm
D ₅₀ = 0.0367 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

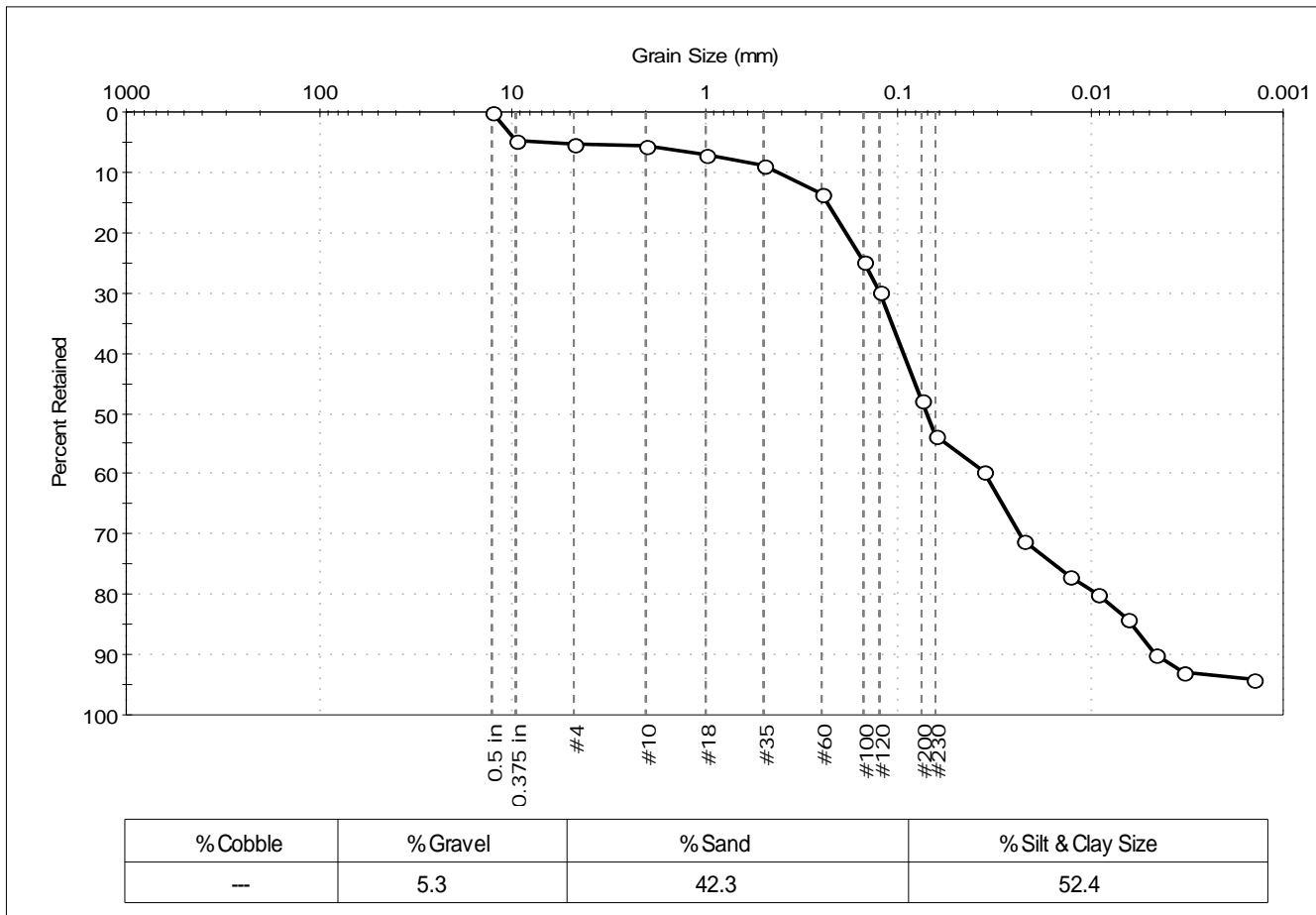
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 130-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0010DUP	Test Date: 11/19/14	Checked By: jdt	
Depth: ---	Test Id: 309457		
Test Comment: ---			
Sample Description: Wet, dark gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	5		
#4	4.75	5		
#10	2.00	6		
#18	1.00	7		
#35	0.50	9		
#60	0.25	14		
#100	0.15	25		
#120	0.12	30		
#200	0.075	48		
#230	0.063	54		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0356	60		
---	0.0223	71		
---	0.0130	77		
---	0.0092	80		
---	0.0065	84		
---	0.0046	90		
---	0.0033	93		
---	0.0014	94		

<u>Coefficients</u>	
D ₈₅ = 0.2347 mm	D ₃₀ = 0.0233 mm
D ₆₀ = 0.0933 mm	D ₁₅ = 0.0062 mm
D ₅₀ = 0.0702 mm	D ₁₀ = 0.0046 mm
C _u = 20.283	C _c = 1.265

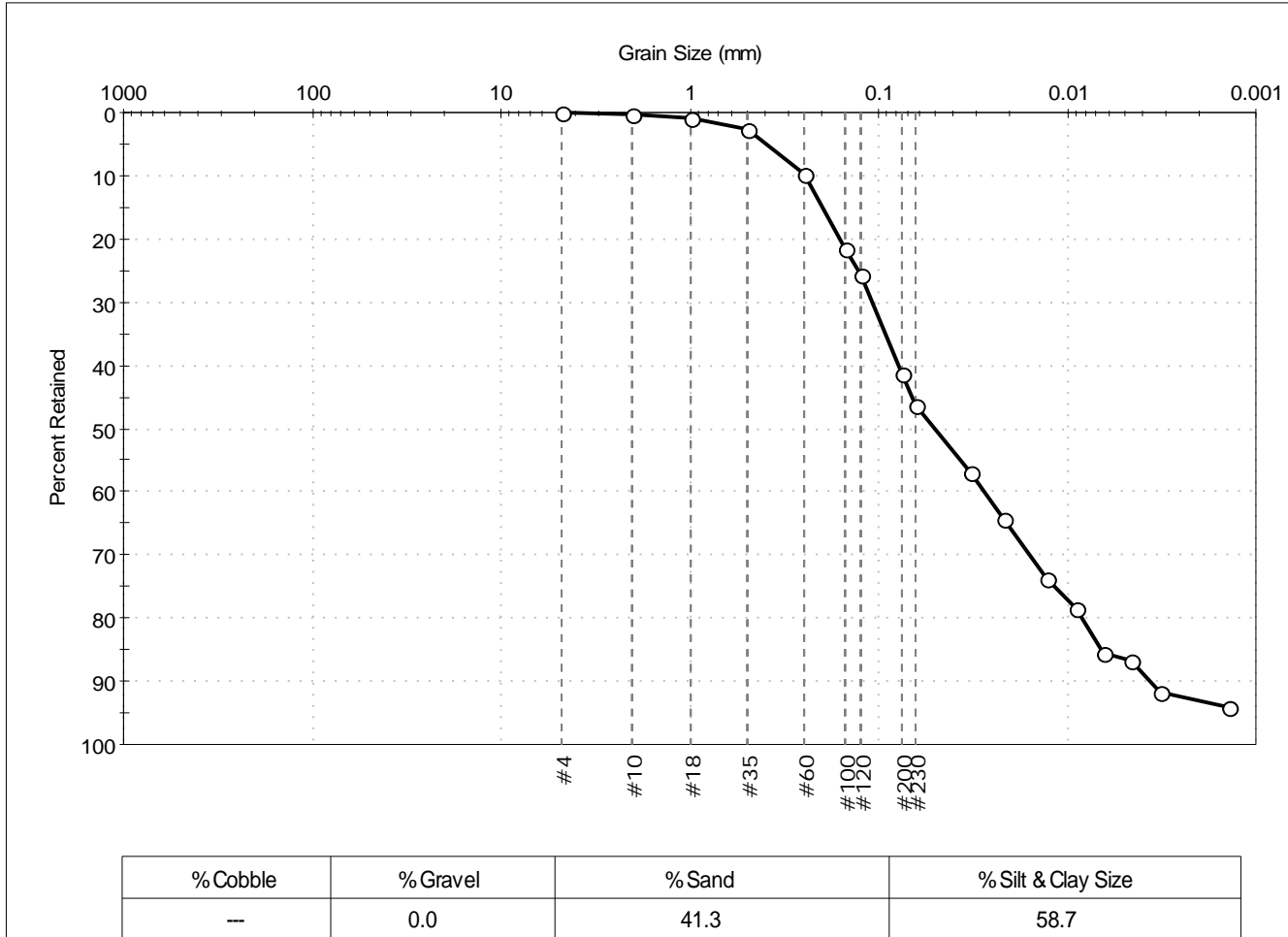
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 130-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0011	Test Date: 10/23/14	Test Id: 309458	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	10		
#100	0.15	21		
#120	0.12	26		
#200	0.075	41		
#230	0.063	46		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0329	57		
---	0.0218	64		
---	0.0127	74		
---	0.0090	78		
---	0.0065	86		
---	0.0046	87		
---	0.0032	92		
---	0.0014	94		

Coefficients	
D ₈₅ = 0.1992 mm	D ₃₀ = 0.0157 mm
D ₆₀ = 0.0782 mm	D ₁₅ = 0.0067 mm
D ₅₀ = 0.0502 mm	D ₁₀ = 0.0037 mm
C _u = 21.135	C _c = 0.852

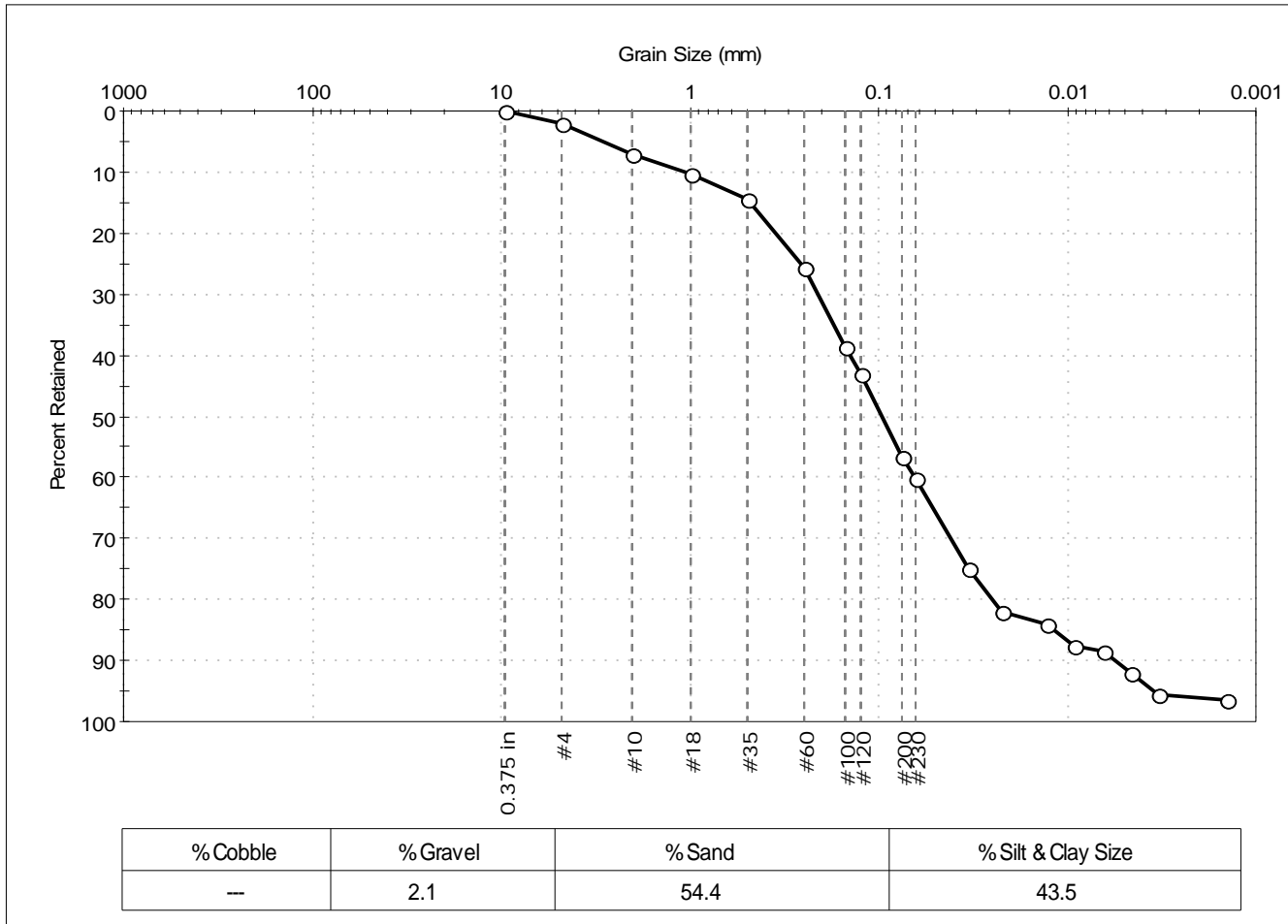
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 130-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0012	Test Date: 10/23/14	Test Id: 309459	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	7		
#18	1.00	10		
#35	0.50	15		
#60	0.25	26		
#100	0.15	39		
#120	0.12	43		
#200	0.075	57		
#230	0.063	60		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0335	75		
---	0.0224	82		
---	0.0129	84		
---	0.0091	88		
---	0.0065	88		
---	0.0046	92		
---	0.0033	96		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.4863 mm	D ₃₀ = 0.0415 mm
D ₆₀ = 0.1424 mm	D ₁₅ = 0.0116 mm
D ₅₀ = 0.0960 mm	D ₁₀ = 0.0055 mm
C _u = 25.891	C _c = 2.199

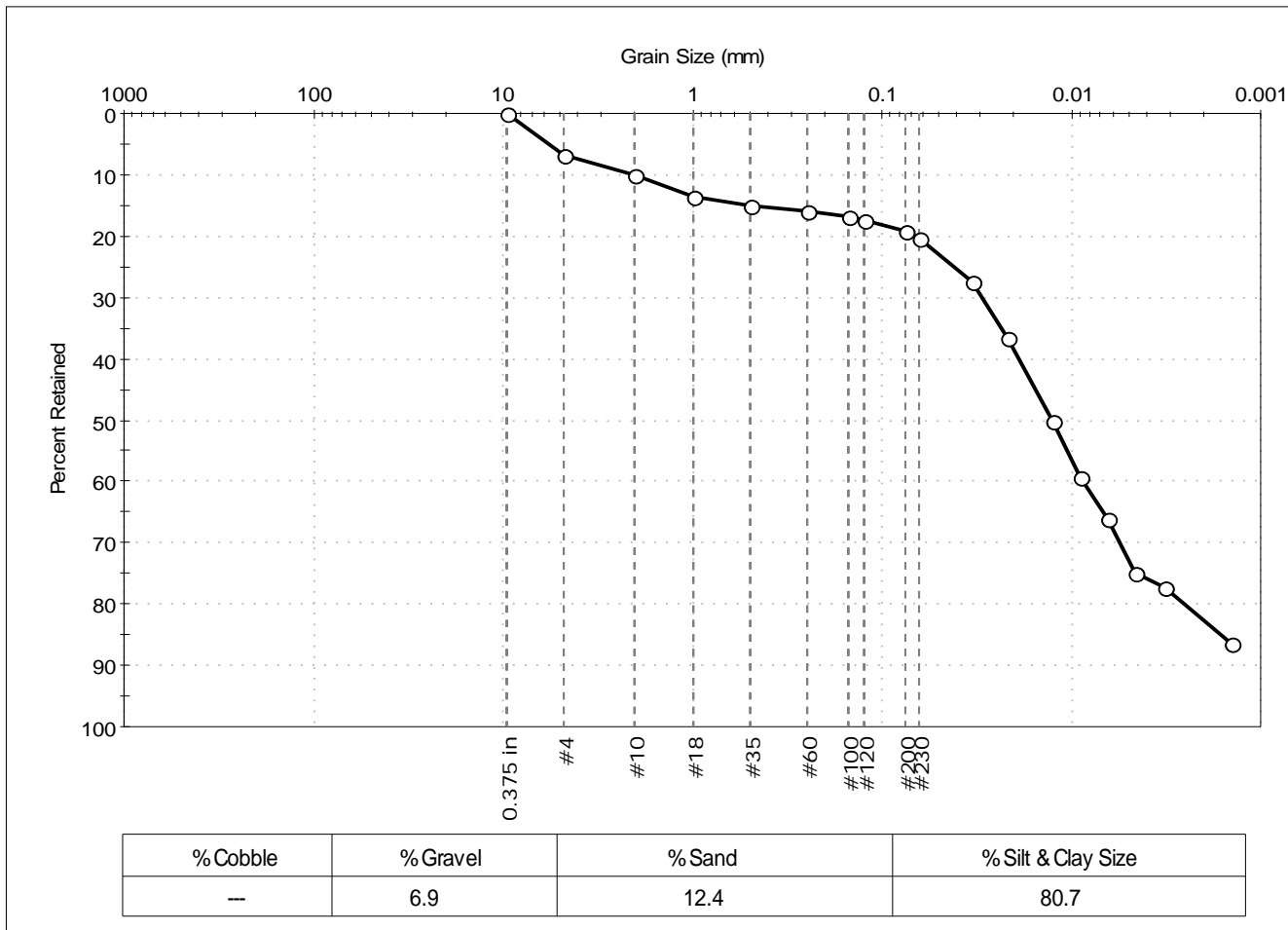
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 134-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0013	Test Date: 10/20/14	Checked By: jdt	
Depth: ---	Test Id: 309460		
Test Comment: ---			
Sample Description: Wet, dark gray silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	7		
#10	2.00	10		
#18	1.00	14		
#35	0.50	15		
#60	0.25	16		
#100	0.15	17		
#120	0.12	17		
#200	0.075	19		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	27		
---	0.0217	37		
---	0.0126	50		
---	0.0090	59		
---	0.0064	66		
---	0.0046	75		
---	0.0032	77		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.5150 mm	D ₃₀ = 0.0055 mm
D ₆₀ = 0.0189 mm	D ₁₅ = 0.0016 mm
D ₅₀ = 0.0127 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

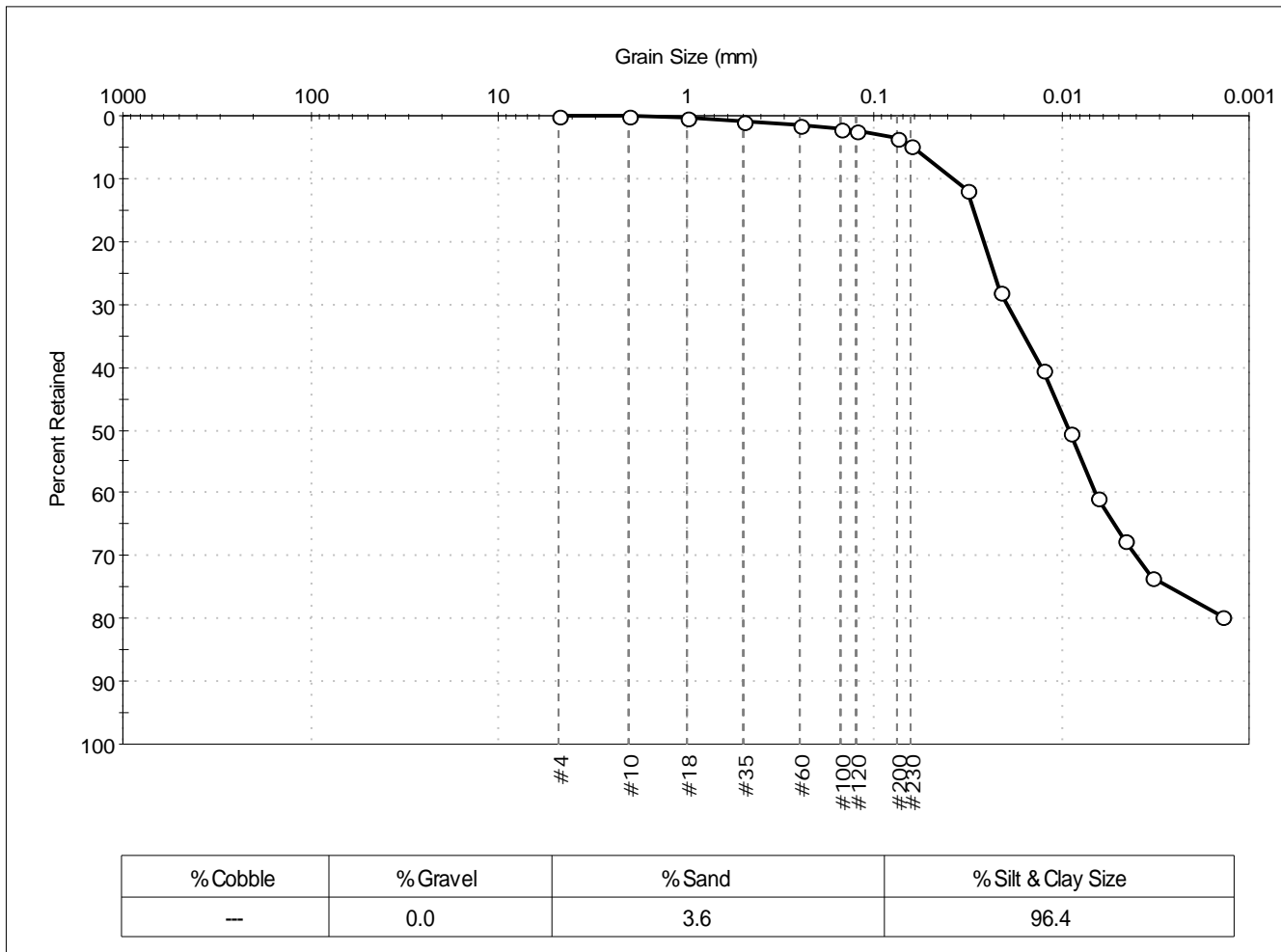
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 134-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0014	Test Date: 10/14/14	Depth: ---	Test Id: 309461
Test Comment: ---	Sample Description: Wet, dark gray silt	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	4		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0315	12		
---	0.0213	28		
---	0.0125	40		
---	0.0090	50		
---	0.0065	61		
---	0.0046	67		
---	0.0033	74		
---	0.0014	80		

<u>Coefficients</u>	
D ₈₅ = 0.0292 mm	D ₃₀ = 0.0040 mm
D ₆₀ = 0.0126 mm	D ₁₅ = N/A
D ₅₀ = 0.0091 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

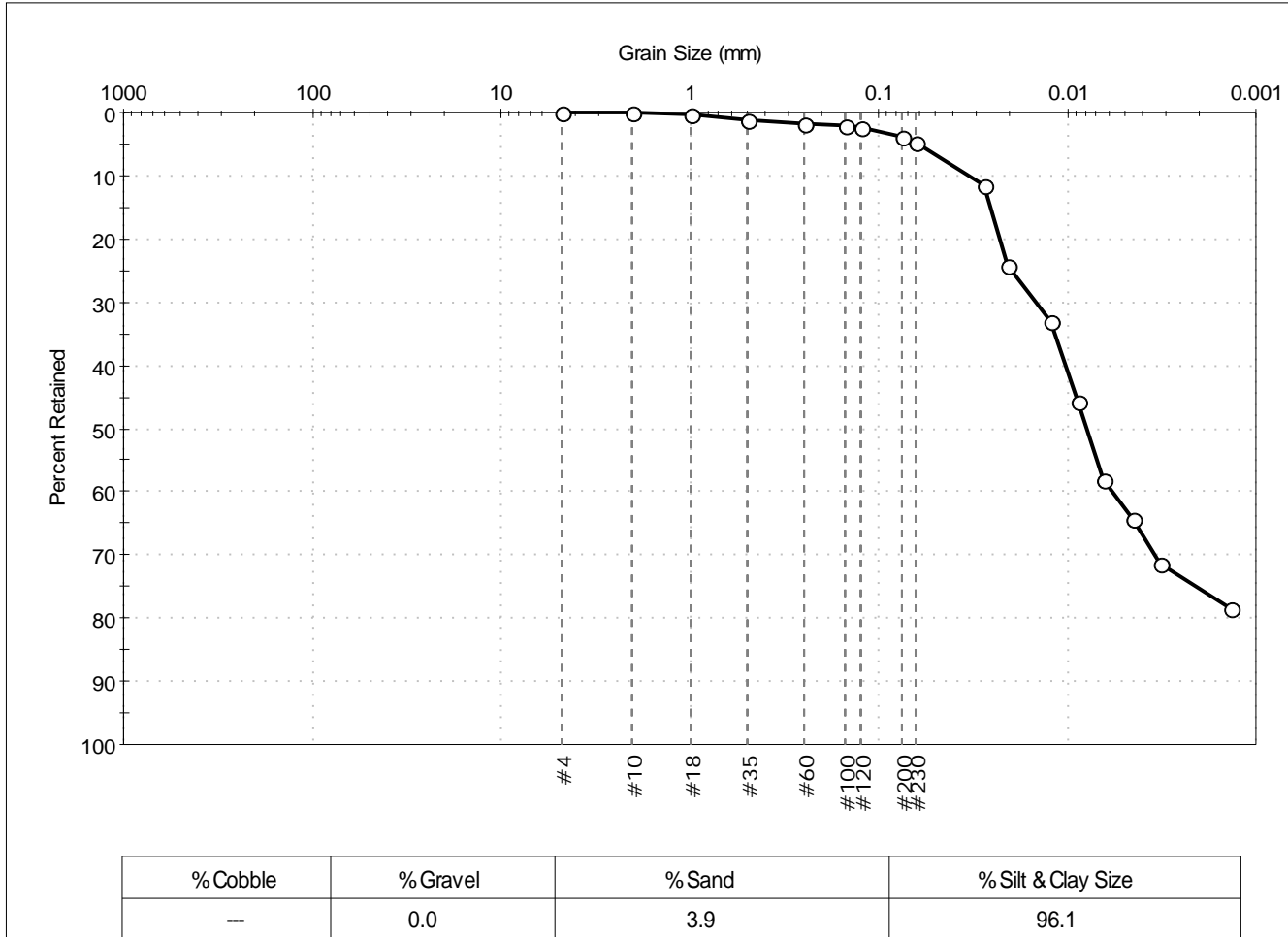
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 134-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0015	Test Date: 10/14/14	Test Id: 309462	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	2		
#100	0.15	2		
#120	0.12	2		
#200	0.075	4		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0278	12		
---	0.0208	24		
---	0.0123	33		
---	0.0088	46		
---	0.0064	58		
---	0.0045	64		
---	0.0032	71		
---	0.0014	79		

<u>Coefficients</u>	
D ₈₅ = 0.0258 mm	D ₃₀ = 0.0034 mm
D ₆₀ = 0.0102 mm	D ₁₅ = N/A
D ₅₀ = 0.0079 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

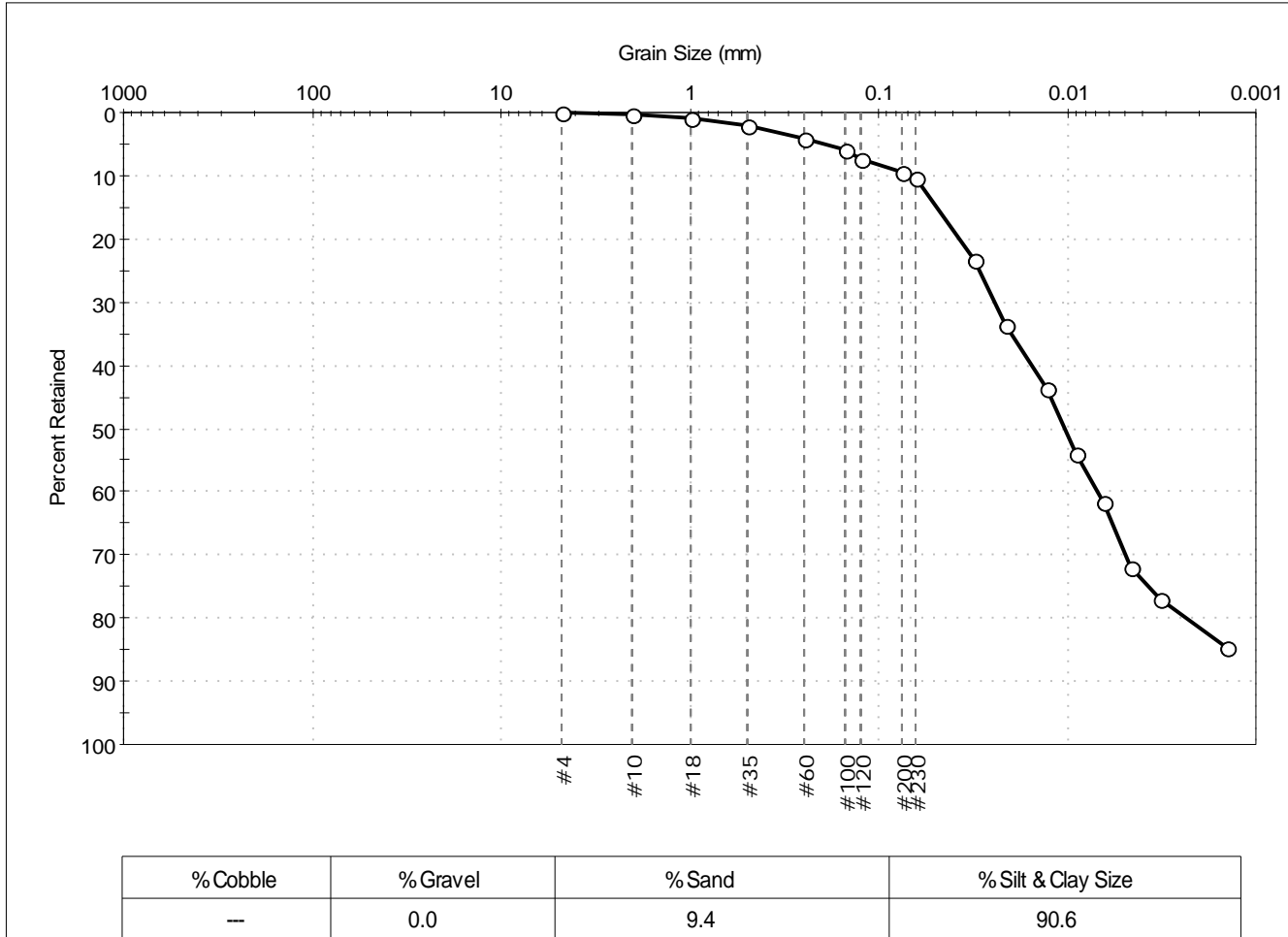
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 134-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0016	Test Date: 10/20/14	Depth: ---	Test Id: 309463
Test Comment: ---	Sample Description: Wet, dark gray silt	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	4		
#100	0.15	6		
#120	0.12	7		
#200	0.075	9		
#230	0.063	10		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0307	23		
---	0.0213	34		
---	0.0128	44		
---	0.0090	54		
---	0.0065	62		
---	0.0046	72		
---	0.0033	77		
---	0.0014	85		

<u>Coefficients</u>	
D ₈₅ = 0.0486 mm	D ₃₀ = 0.0049 mm
D ₆₀ = 0.0154 mm	D ₁₅ = N/A
D ₅₀ = 0.0103 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

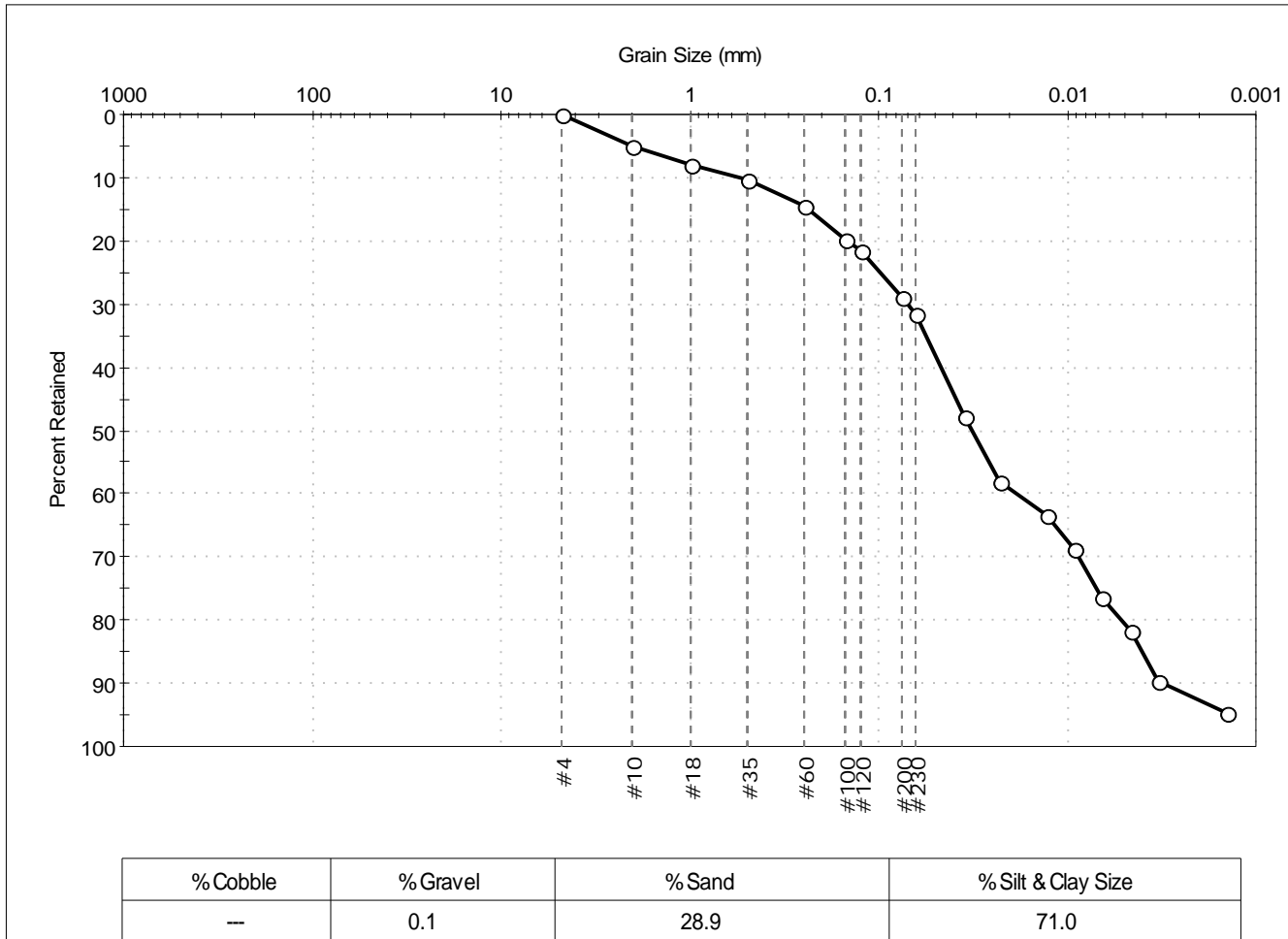
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 150-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0017	Test Date: 10/20/14	Depth: ---	Test Id: 309464
Test Comment: ---	Sample Description: Wet, dark gray silt with sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	5		
#18	1.00	8		
#35	0.50	10		
#60	0.25	14		
#100	0.15	20		
#120	0.12	22		
#200	0.075	29		
#230	0.063	32		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0348	48		
---	0.0228	58		
---	0.0128	63		
---	0.0091	69		
---	0.0065	76		
---	0.0046	82		
---	0.0033	90		
---	0.0014	95		

<u>Coefficients</u>	
D ₈₅ = 0.2342 mm	D ₃₀ = 0.0086 mm
D ₆₀ = 0.0462 mm	D ₁₅ = 0.0040 mm
D ₅₀ = 0.0316 mm	D ₁₀ = 0.0031 mm
C _u = 14.903	C _c = 0.516

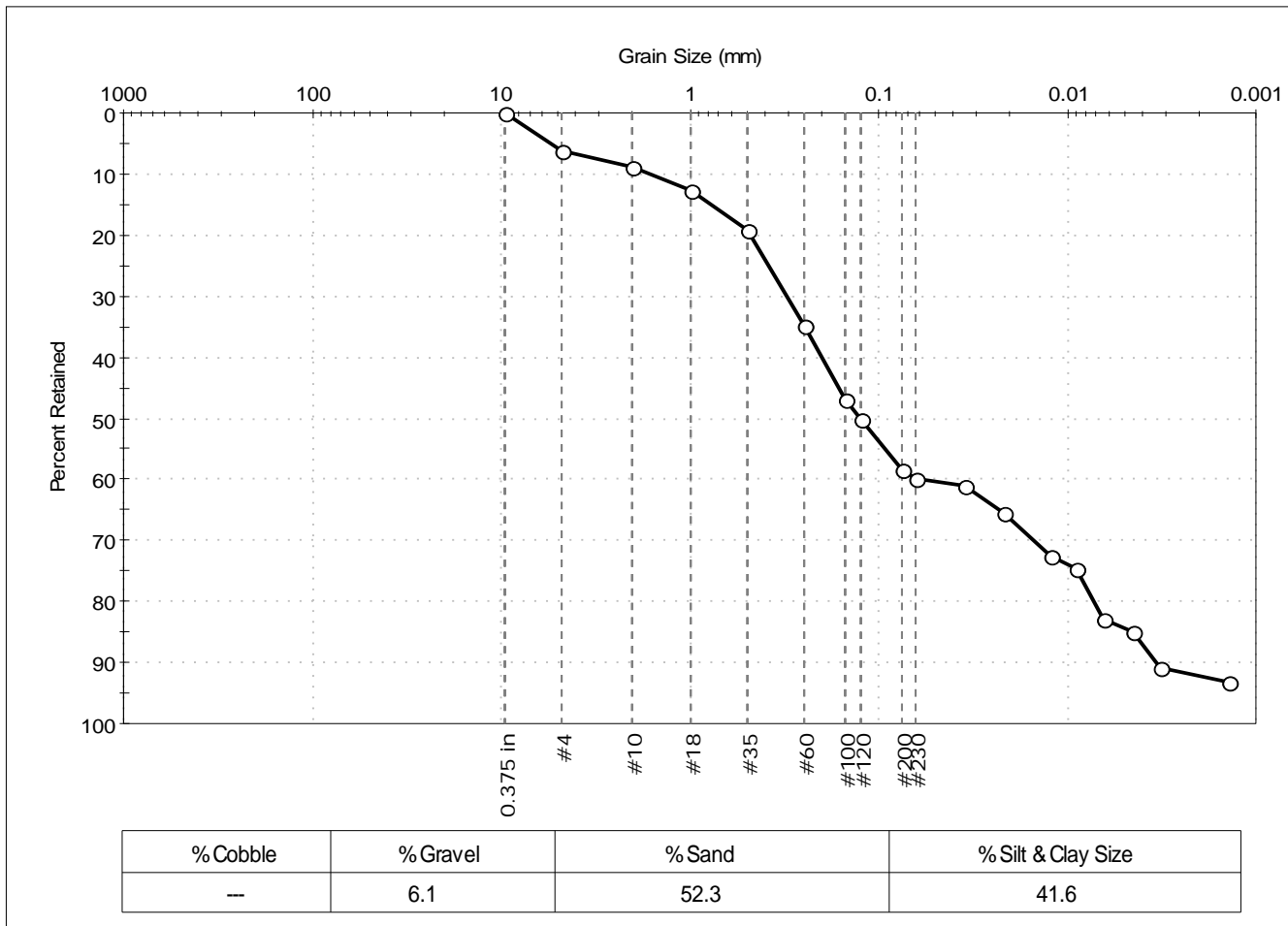
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	150-14LTM	Sample Type:	bag
Sample ID:	NBH14-0018	Test Date:	10/23/14
Depth:	---	Test Id:	309465
Test Comment:	---		
Sample Description:	Wet, greenish gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	6		
#10	2.00	9		
#18	1.00	13		
#35	0.50	19		
#60	0.25	35		
#100	0.15	47		
#120	0.12	50		
#200	0.075	58		
#230	0.063	60		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0347	61		
---	0.0217	66		
---	0.0123	72		
---	0.0090	75		
---	0.0064	83		
---	0.0045	85		
---	0.0033	91		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.7858 mm	D ₃₀ = 0.0151 mm
D ₆₀ = 0.2010 mm	D ₁₅ = 0.0046 mm
D ₅₀ = 0.1270 mm	D ₁₀ = 0.0034 mm
C _u = 59.118	C _c = 0.334

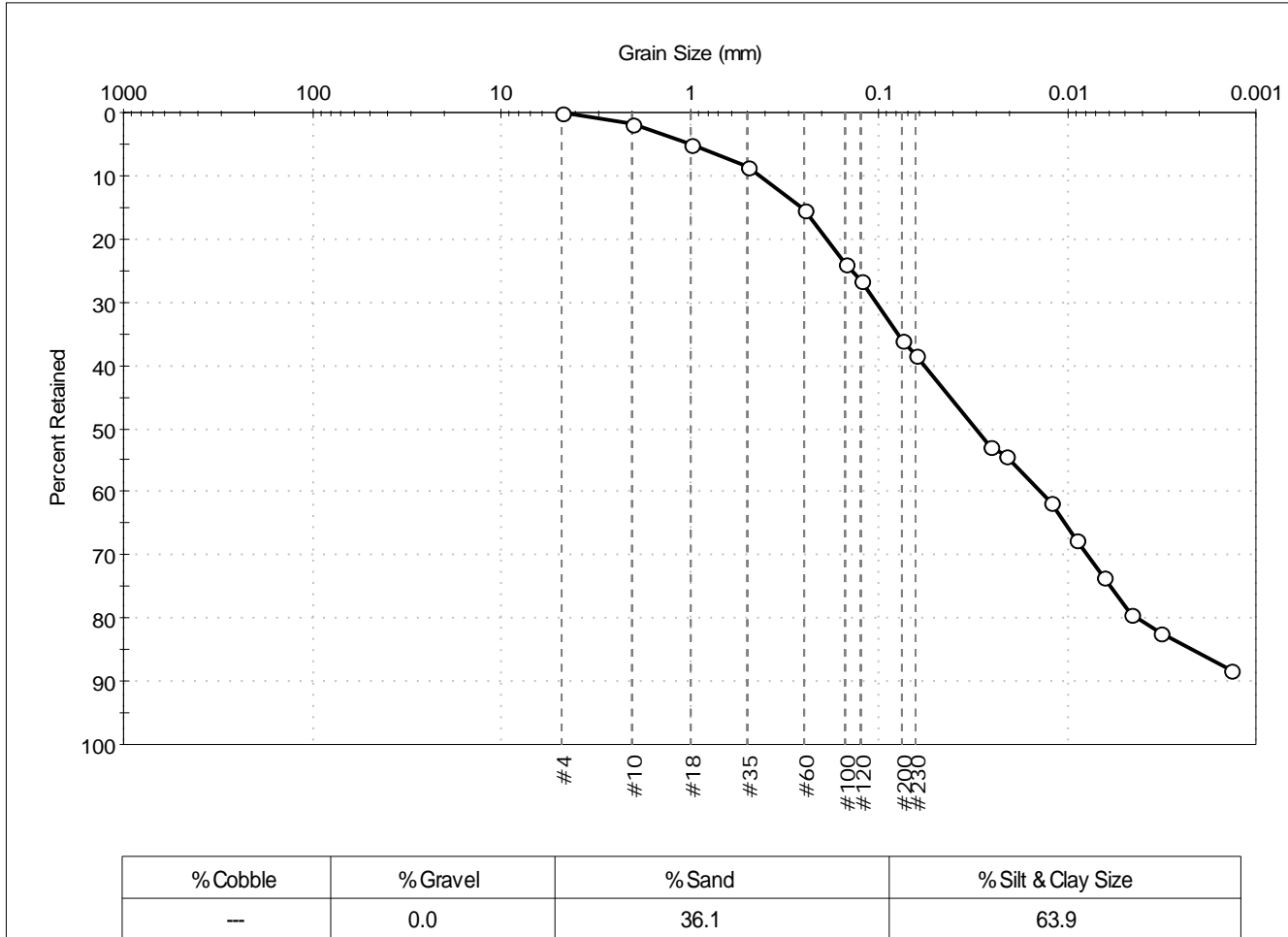
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 150-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0019	Test Date: 10/16/14	Test Id: 309466	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	5		
#35	0.50	9		
#60	0.25	15		
#100	0.15	24		
#120	0.12	27		
#200	0.075	36		
#230	0.063	38		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0258	53		
---	0.0213	54		
---	0.0123	62		
---	0.0090	68		
---	0.0064	73		
---	0.0046	79		
---	0.0032	82		
---	0.0014	88		

<u>Coefficients</u>	
D ₈₅ = 0.2575 mm	D ₃₀ = 0.0078 mm
D ₆₀ = 0.0573 mm	D ₁₅ = 0.0022 mm
D ₅₀ = 0.0308 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

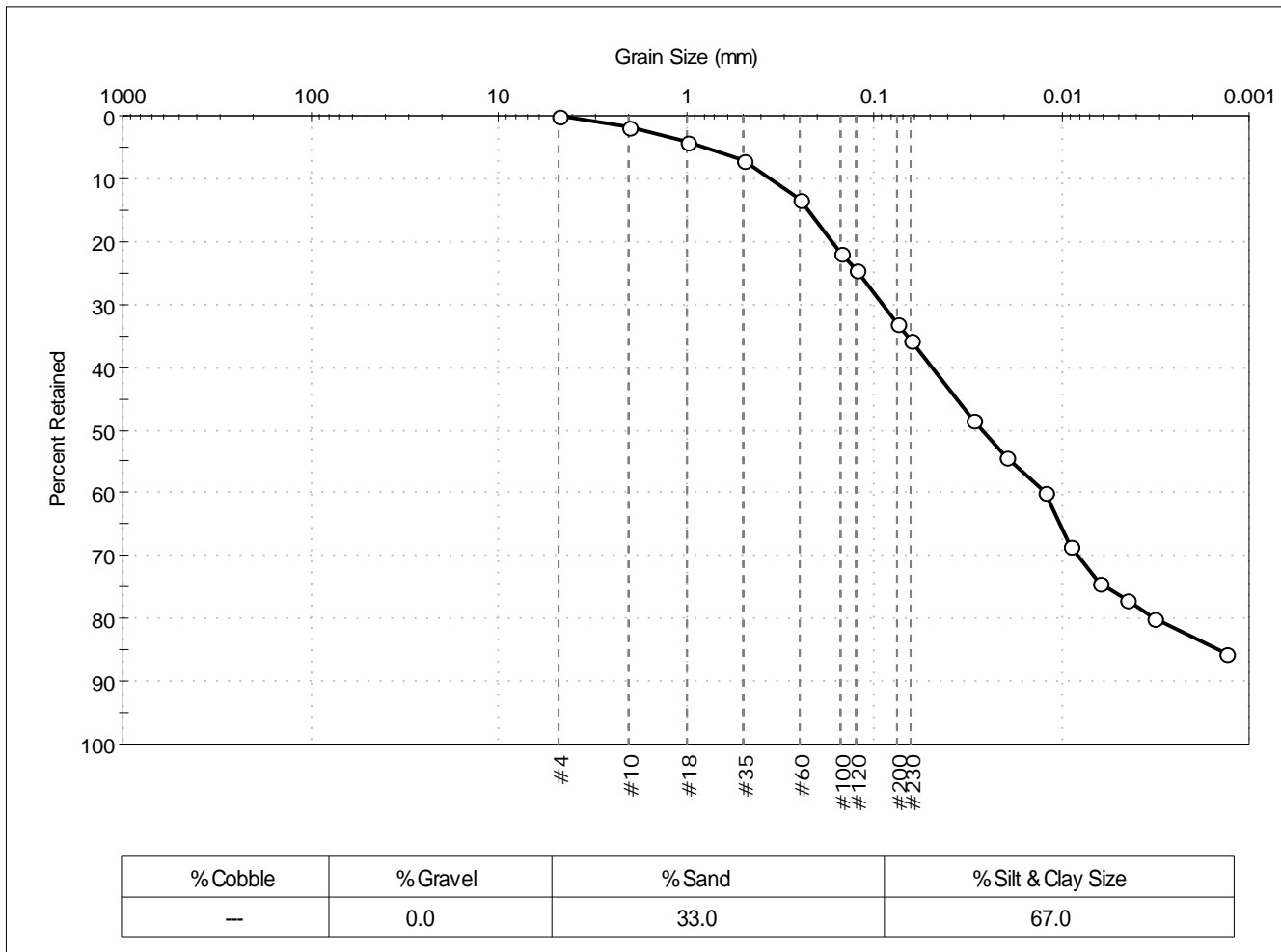
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	150-14LTM	Sample Type:	bag
Sample ID:	NBH14-0020	Test Date:	10/16/14
Depth:	---	Test Id:	309467
Test Comment:	---		
Sample Description:	Wet, dark greenish gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	4		
#35	0.50	7		
#60	0.25	13		
#100	0.15	22		
#120	0.12	24		
#200	0.075	33		
#230	0.063	36		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0298	48		
---	0.0198	54		
---	0.0123	60		
---	0.0089	69		
---	0.0064	74		
---	0.0045	77		
---	0.0032	80		
---	0.0013	86		

Coefficients	
D ₈₅ = 0.2253 mm	D ₃₀ = 0.0082 mm
D ₆₀ = 0.0491 mm	D ₁₅ = 0.0015 mm
D ₅₀ = 0.0267 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

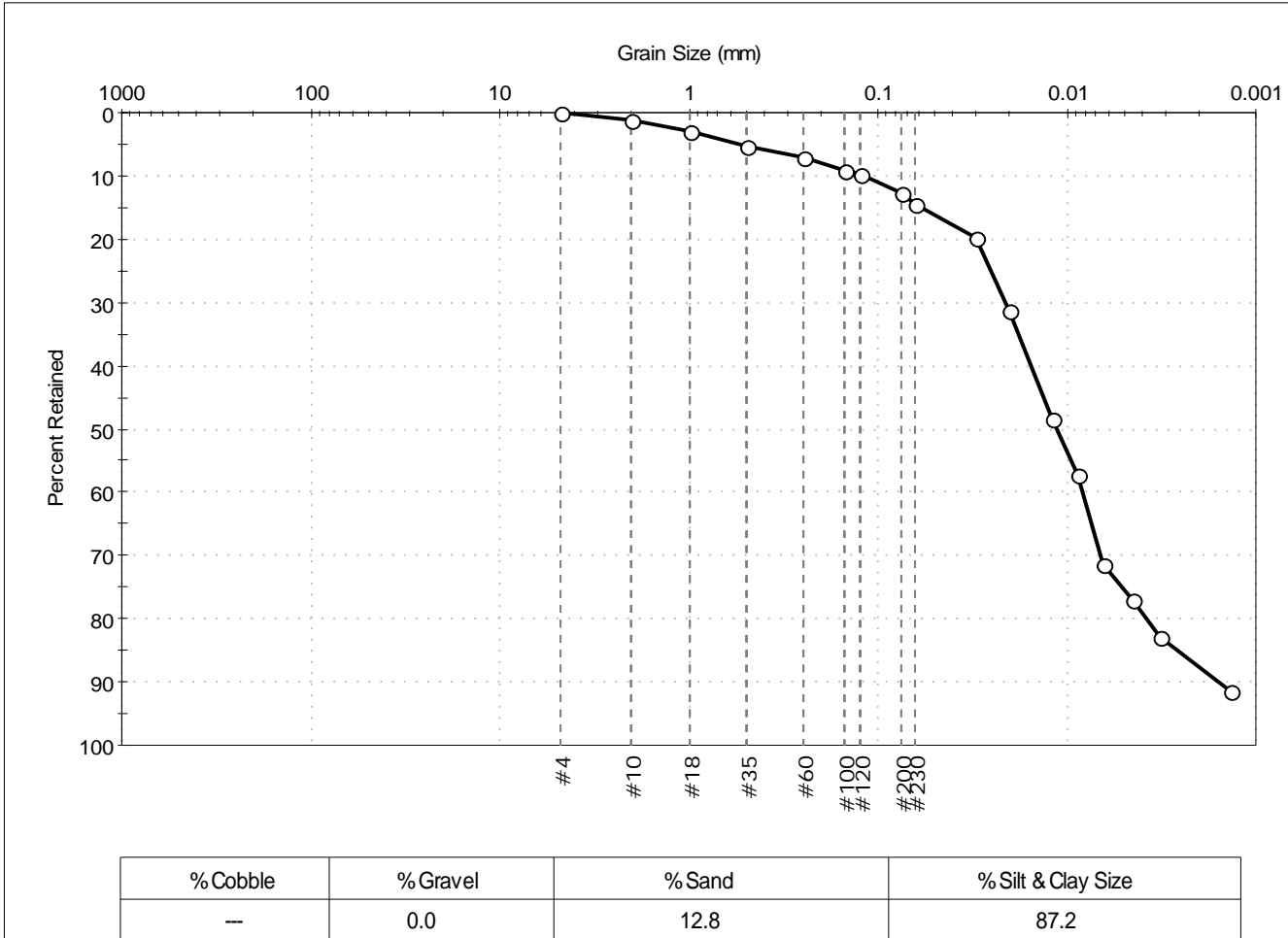
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---
Dispersion Device :	Apparatus A - Mech Mixer
Dispersion Period :	1 minute
Specific Gravity :	2.65
Separation of Sample:	#230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 253-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0021	Test Date: 10/21/14	Test Id: 309468	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	5		
#60	0.25	7		
#100	0.15	9		
#120	0.12	10		
#200	0.075	13		
#230	0.063	14		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0302	20		
---	0.0200	31		
---	0.0121	49		
---	0.0087	57		
---	0.0064	71		
---	0.0045	77		
---	0.0032	83		
---	0.0014	91		

<u>Coefficients</u>	
D ₈₅ = 0.0582 mm	D ₃₀ = 0.0066 mm
D ₆₀ = 0.0155 mm	D ₁₅ = 0.0026 mm
D ₅₀ = 0.0114 mm	D ₁₀ = 0.0016 mm
C _u = 9.688	C _c = 1.756

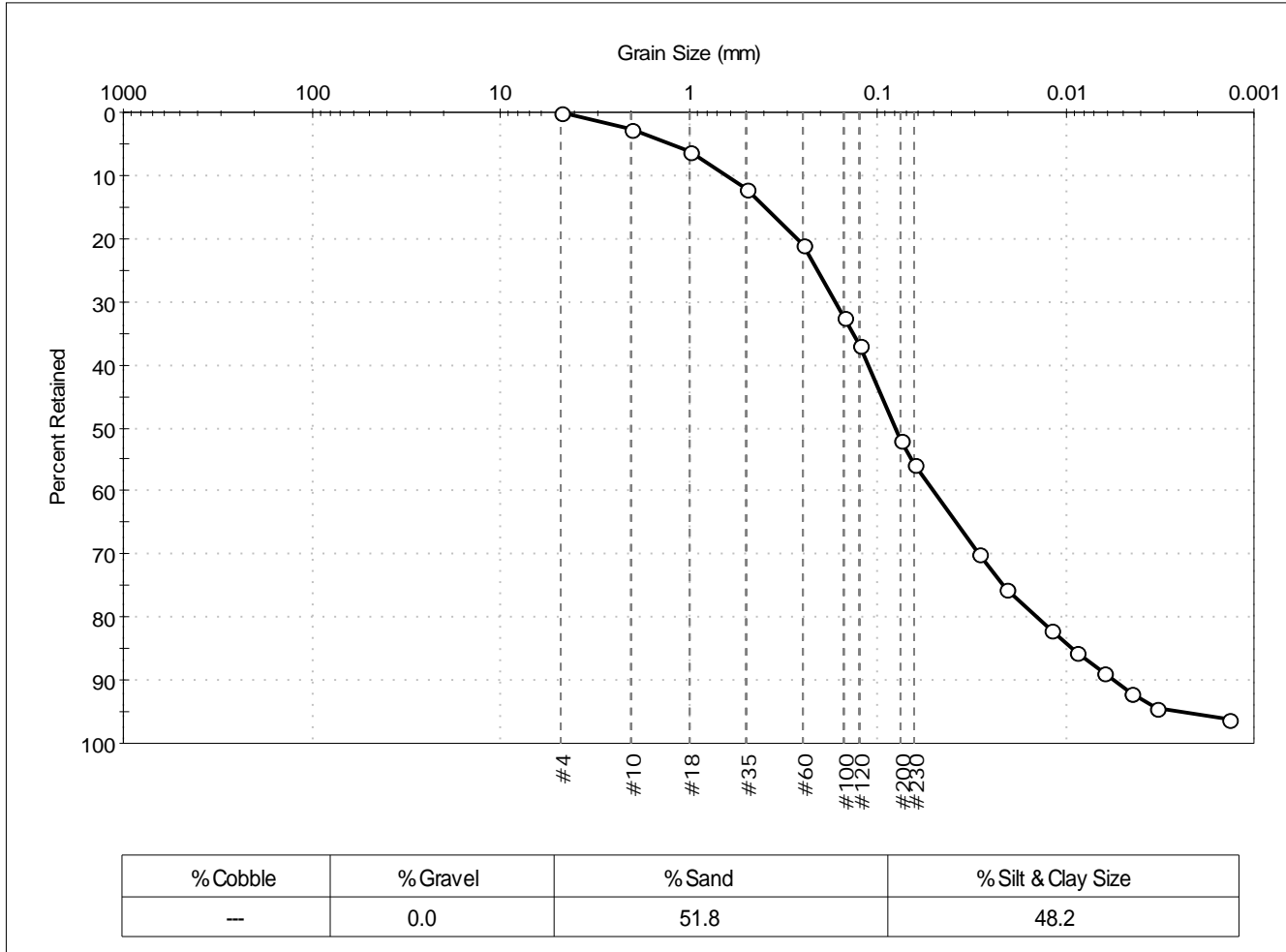
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 253-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0022	Test Date: 10/21/14	Test Id: 309469	
Depth: ---			
Test Comment: ---			
Sample Description: Wet, olive silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	3		
#18	1.00	6		
#35	0.50	12		
#60	0.25	21		
#100	0.15	32		
#120	0.12	37		
#200	0.075	52		
#230	0.063	56		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0292	70		
---	0.0207	75		
---	0.0120	82		
---	0.0088	85		
---	0.0063	89		
---	0.0045	92		
---	0.0033	94		
---	0.0014	96		

Coefficients	
D ₈₅ = 0.3969 mm	D ₃₀ = 0.0289 mm
D ₆₀ = 0.1122 mm	D ₁₅ = 0.0092 mm
D ₅₀ = 0.0797 mm	D ₁₀ = 0.0056 mm
C _u = 20.036	C _c = 1.329

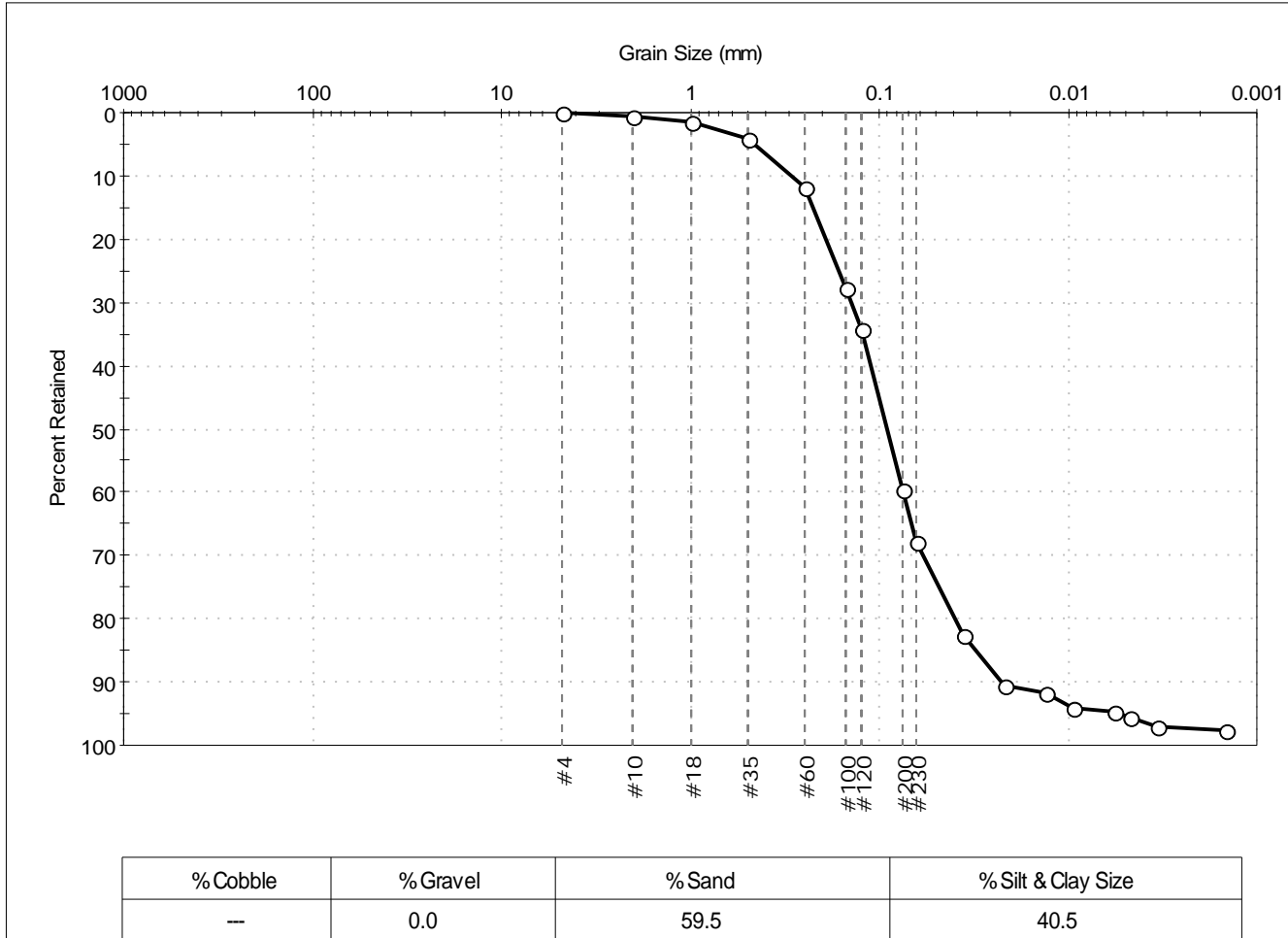
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Specific Gravity	: 2.65
Separation of Sample	: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 253-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0023	Test Date: 10/15/14	Test Id: 309470	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	4		
#60	0.25	12		
#100	0.15	28		
#120	0.12	34		
#200	0.075	59		
#230	0.063	68		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0355	83		
---	0.0218	91		
---	0.0132	92		
---	0.0094	94		
---	0.0057	95		
---	0.0047	95		
---	0.0034	97		
---	0.0015	98		

<u>Coefficients</u>	
D ₈₅ = 0.2257 mm	D ₃₀ = 0.0577 mm
D ₆₀ = 0.1112 mm	D ₁₅ = 0.0308 mm
D ₅₀ = 0.0908 mm	D ₁₀ = 0.0227 mm
C _u = 4.899	C _c = 1.319

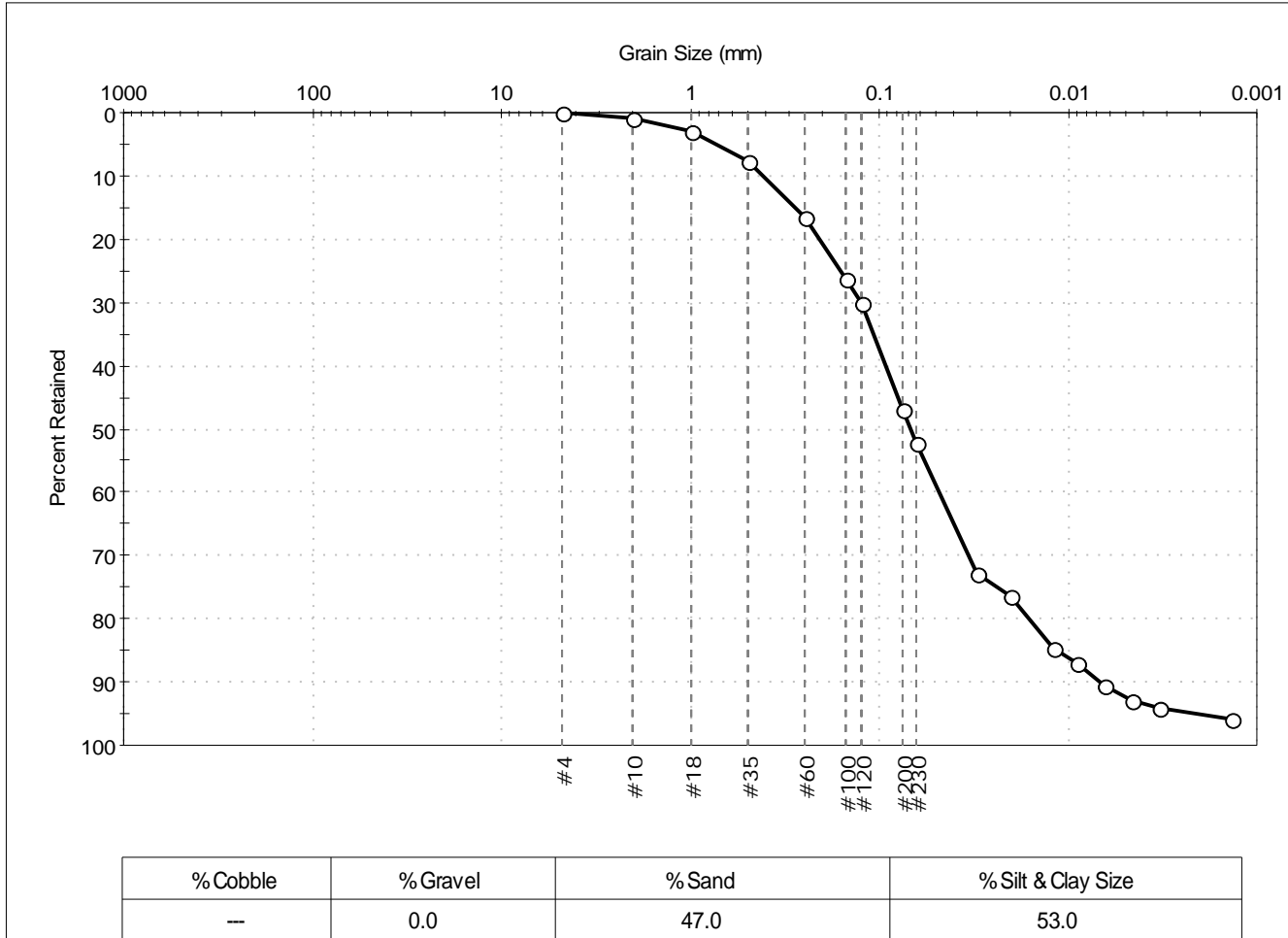
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 253-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0024	Test Date: 10/21/14	Test Id: 309471	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	8		
#60	0.25	17		
#100	0.15	26		
#120	0.12	30		
#200	0.075	47		
#230	0.063	52		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0301	73		
---	0.0203	76		
---	0.0121	85		
---	0.0090	87		
---	0.0064	91		
---	0.0046	93		
---	0.0033	94		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.2819 mm	D ₃₀ = 0.0334 mm
D ₆₀ = 0.0928 mm	D ₁₅ = 0.0117 mm
D ₅₀ = 0.0677 mm	D ₁₀ = 0.0068 mm
C _u = 13.647	C _c = 1.768

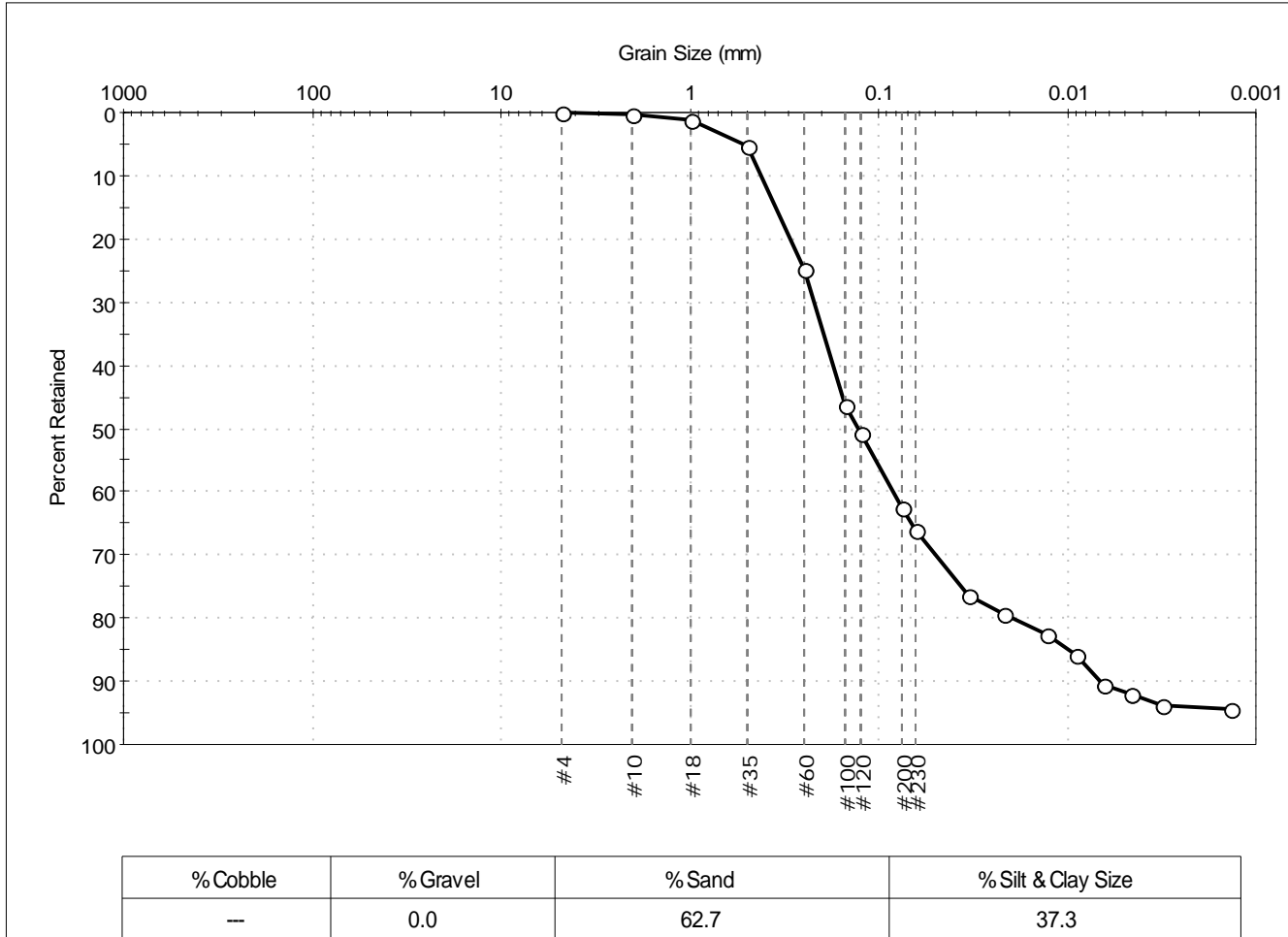
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 216-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0025	Test Date: 10/14/14	Test Id: 309472	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	5		
#60	0.25	25		
#100	0.15	46		
#120	0.12	51		
#200	0.075	63		
#230	0.063	66		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	76		
---	0.0219	79		
---	0.0127	83		
---	0.0090	86		
---	0.0065	91		
---	0.0046	92		
---	0.0032	94		
---	0.0014	94		

Coefficients	
D ₈₅ = 0.3531 mm	D ₃₀ = 0.0497 mm
D ₆₀ = 0.1744 mm	D ₁₅ = 0.0098 mm
D ₅₀ = 0.1288 mm	D ₁₀ = 0.0067 mm
C _u = 26.030	C _c = 2.114

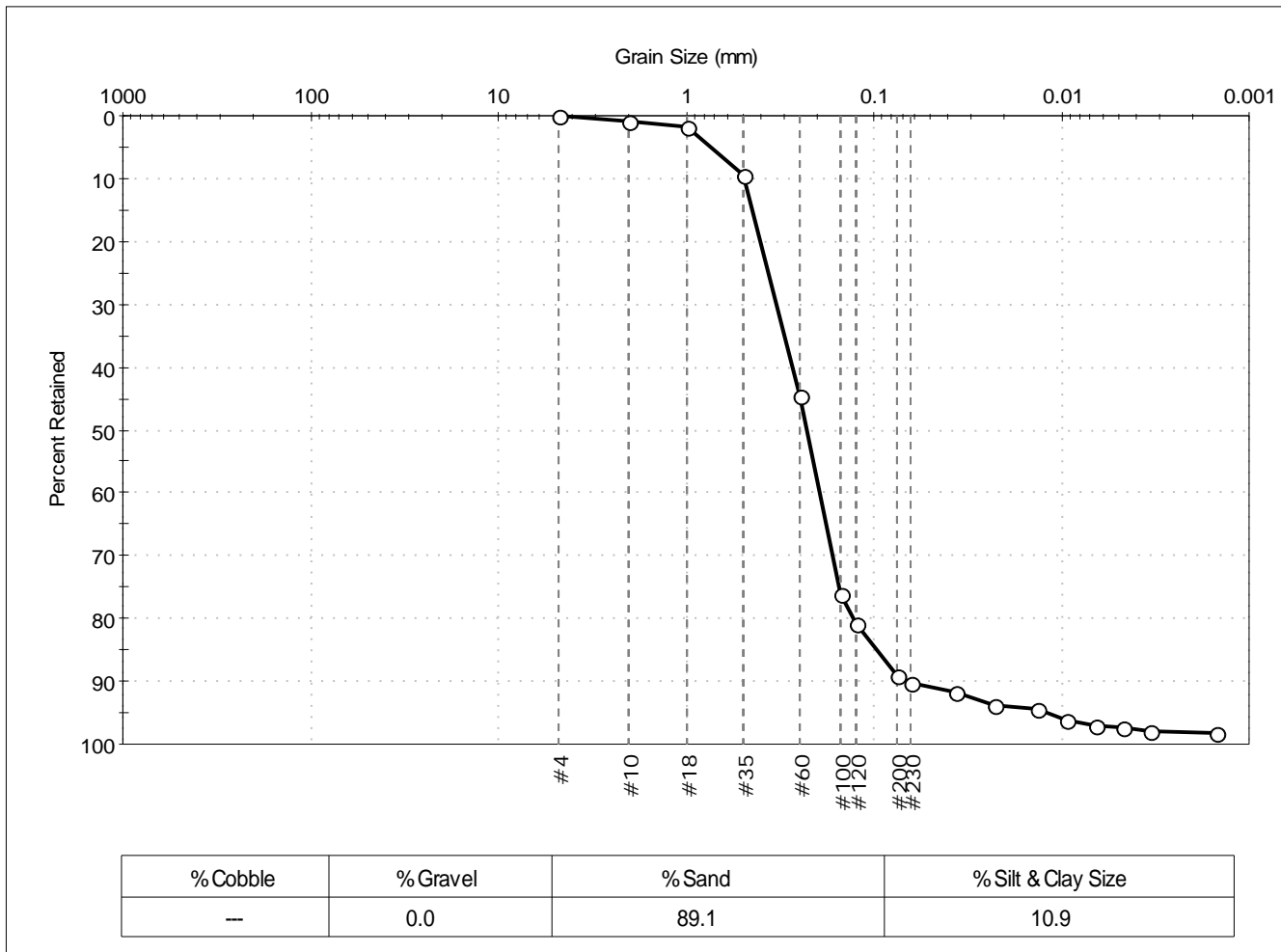
Classification	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 216-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0026
 Test Date: 10/16/14
 Checked By: jdt
 Depth: ---
 Test Id: 309473
 Test Comment: ---
 Sample Description: Wet, olive gray sand with silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	9		
#60	0.25	45		
#100	0.15	76		
#120	0.12	81		
#200	0.075	89		
#230	0.063	90		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0371	92		
---	0.0230	94		
---	0.0133	94		
---	0.0095	96		
---	0.0067	97		
---	0.0047	97		
---	0.0034	98		
---	0.0015	98		

<u>Coefficients</u>	
D ₈₅ = 0.4476 mm	D ₃₀ = 0.1659 mm
D ₆₀ = 0.2738 mm	D ₁₅ = 0.0968 mm
D ₅₀ = 0.2292 mm	D ₁₀ = 0.0661 mm
C _u = 4.142	C _c = 1.521

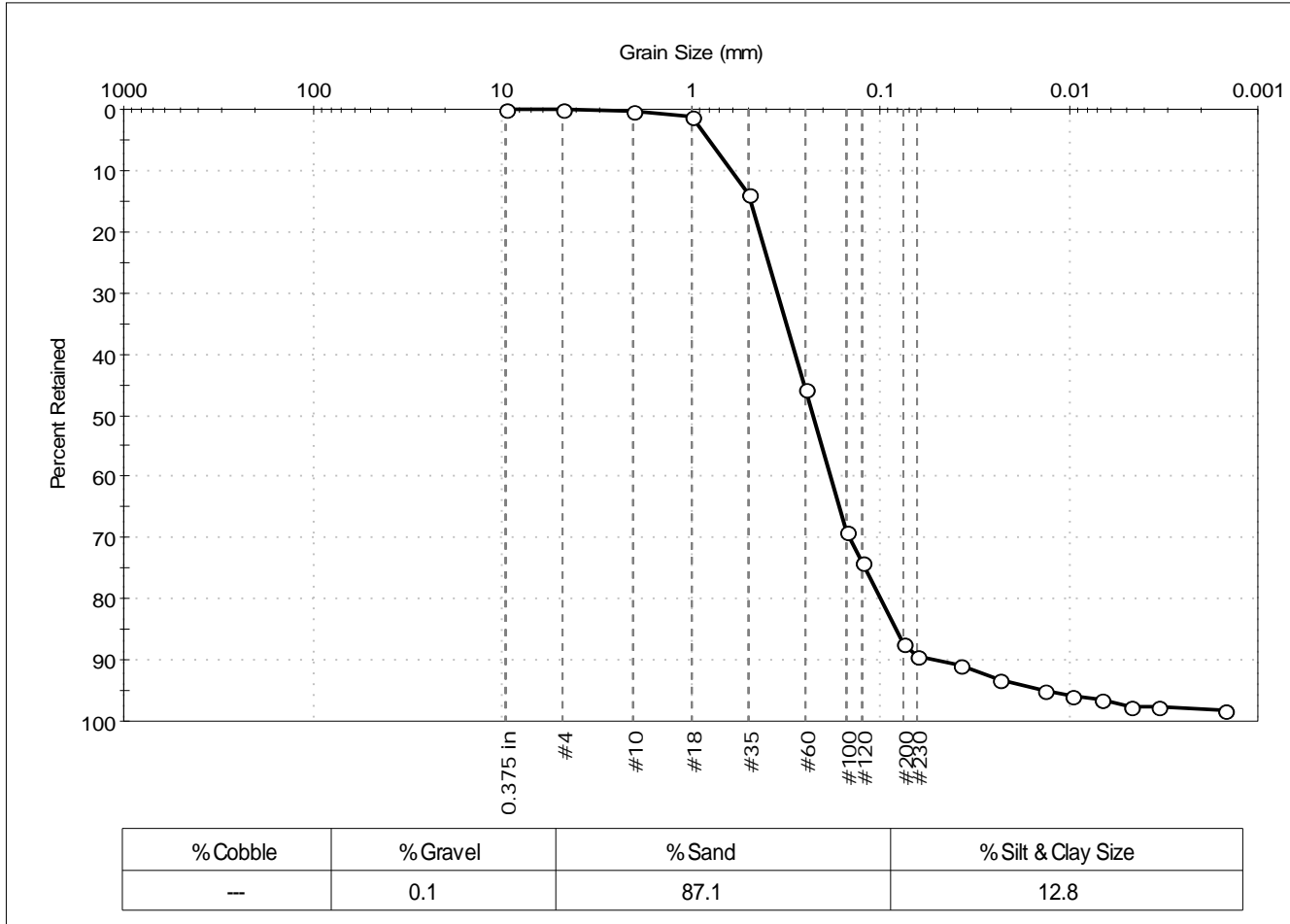
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	216-14LTM	Sample Type:	bag
Sample ID:	NBH14-0027	Test Date:	10/16/14
Depth:	---	Test Id:	309474
Test Comment:	---		
Sample Description:	Wet, olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	14		
#60	0.25	46		
#100	0.15	69		
#120	0.12	74		
#200	0.075	87		
#230	0.063	89		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0375	91		
---	0.0234	93		
---	0.0135	95		
---	0.0095	96		
---	0.0067	97		
---	0.0047	98		
---	0.0034	98		
---	0.0015	98		

<u>Coefficients</u>	
D ₈₅ = 0.4869 mm	D ₃₀ = 0.1444 mm
D ₆₀ = 0.2829 mm	D ₁₅ = 0.0818 mm
D ₅₀ = 0.2274 mm	D ₁₀ = 0.0517 mm
C _u = 5.472	C _c = 1.426

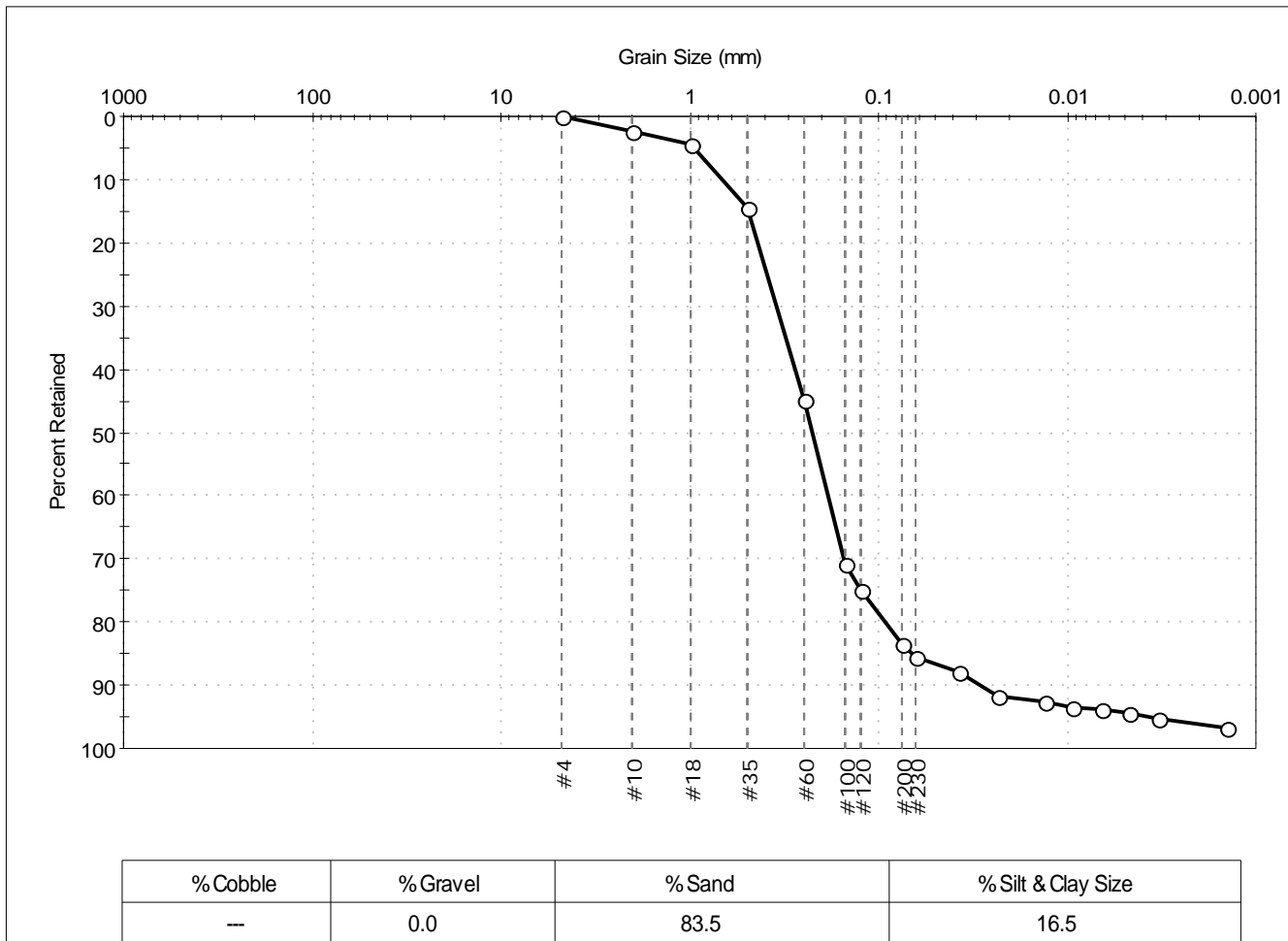
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 216-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0028	Test Date: 10/21/14	Depth: ---	Test Id: 309475
Test Comment: ---	Sample Description: Wet, very dark gray silty sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	5		
#35	0.50	14		
#60	0.25	45		
#100	0.15	71		
#120	0.12	75		
#200	0.075	84		
#230	0.063	85		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0372	88		
---	0.0232	92		
---	0.0133	93		
---	0.0094	93		
---	0.0066	94		
---	0.0047	94		
---	0.0033	95		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 0.4934 mm	D ₃₀ = 0.1522 mm
D ₆₀ = 0.2795 mm	D ₁₅ = 0.0654 mm
D ₅₀ = 0.2260 mm	D ₁₀ = 0.0284 mm
C _u = 9.842	C _c = 2.918

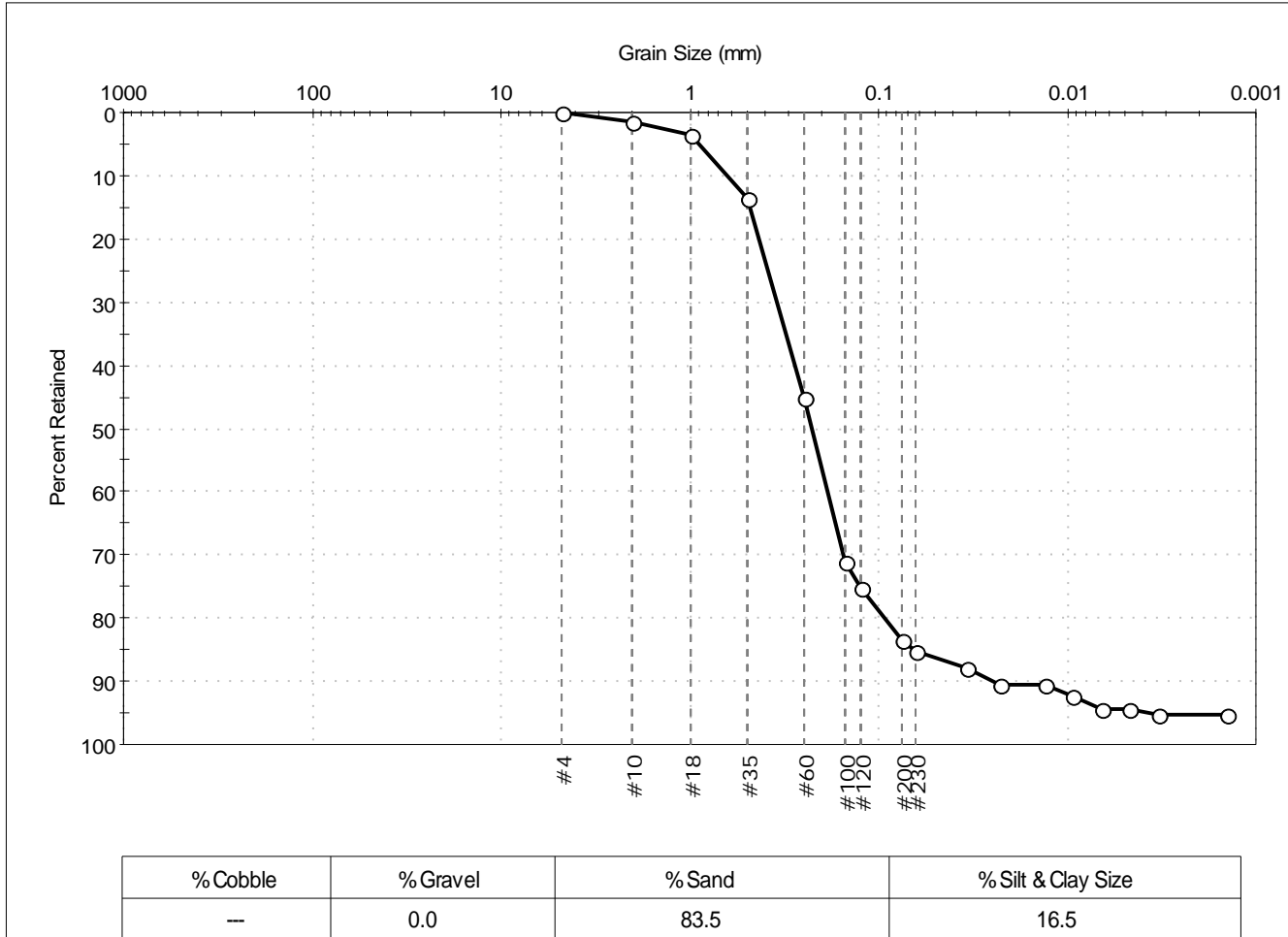
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 216-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0028DUP	Test Date: 10/15/14	Test Id: 309478	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	4		
#35	0.50	14		
#60	0.25	45		
#100	0.15	71		
#120	0.12	75		
#200	0.075	84		
#230	0.063	85		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0345	88		
---	0.0228	91		
---	0.0131	91		
---	0.0093	92		
---	0.0066	94		
---	0.0047	94		
---	0.0033	95		
---	0.0014	95		

Coefficients	
D ₈₅ = 0.4856 mm	D ₃₀ = 0.1532 mm
D ₆₀ = 0.2794 mm	D ₁₅ = 0.0651 mm
D ₅₀ = 0.2268 mm	D ₁₀ = 0.0248 mm
C _u = 11.266	C _c = 3.387

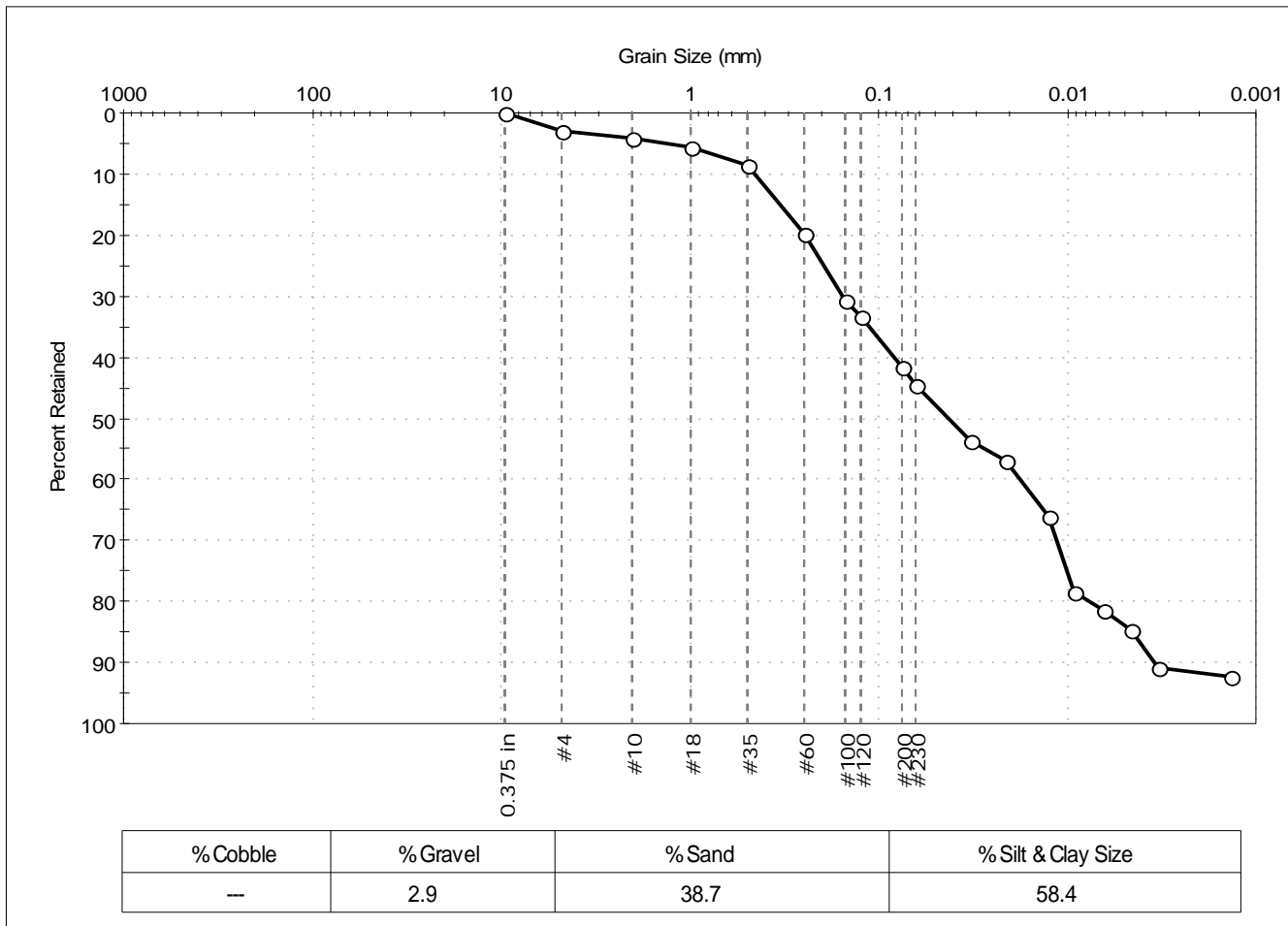
Classification	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Specific Gravity	: 2.65
Separation of Sample	: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	220-14LTM	Sample Type:	bag
Sample ID:	NBH14-0029	Test Date:	10/21/14
Depth:	---	Test Id:	309476
Test Comment:	---		
Sample Description:	Wet, very dark gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	4		
#18	1.00	6		
#35	0.50	9		
#60	0.25	20		
#100	0.15	31		
#120	0.12	33		
#200	0.075	42		
#230	0.063	45		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0330	54		
---	0.0211	57		
---	0.0125	66		
---	0.0091	78		
---	0.0065	81		
---	0.0046	85		
---	0.0033	91		
---	0.0014	92		

<u>Coefficients</u>	
D ₈₅ = 0.3376 mm	D ₃₀ = 0.0113 mm
D ₆₀ = 0.0829 mm	D ₁₅ = 0.0045 mm
D ₅₀ = 0.0429 mm	D ₁₀ = 0.0034 mm
C _u = 24.382	C _c = 0.453

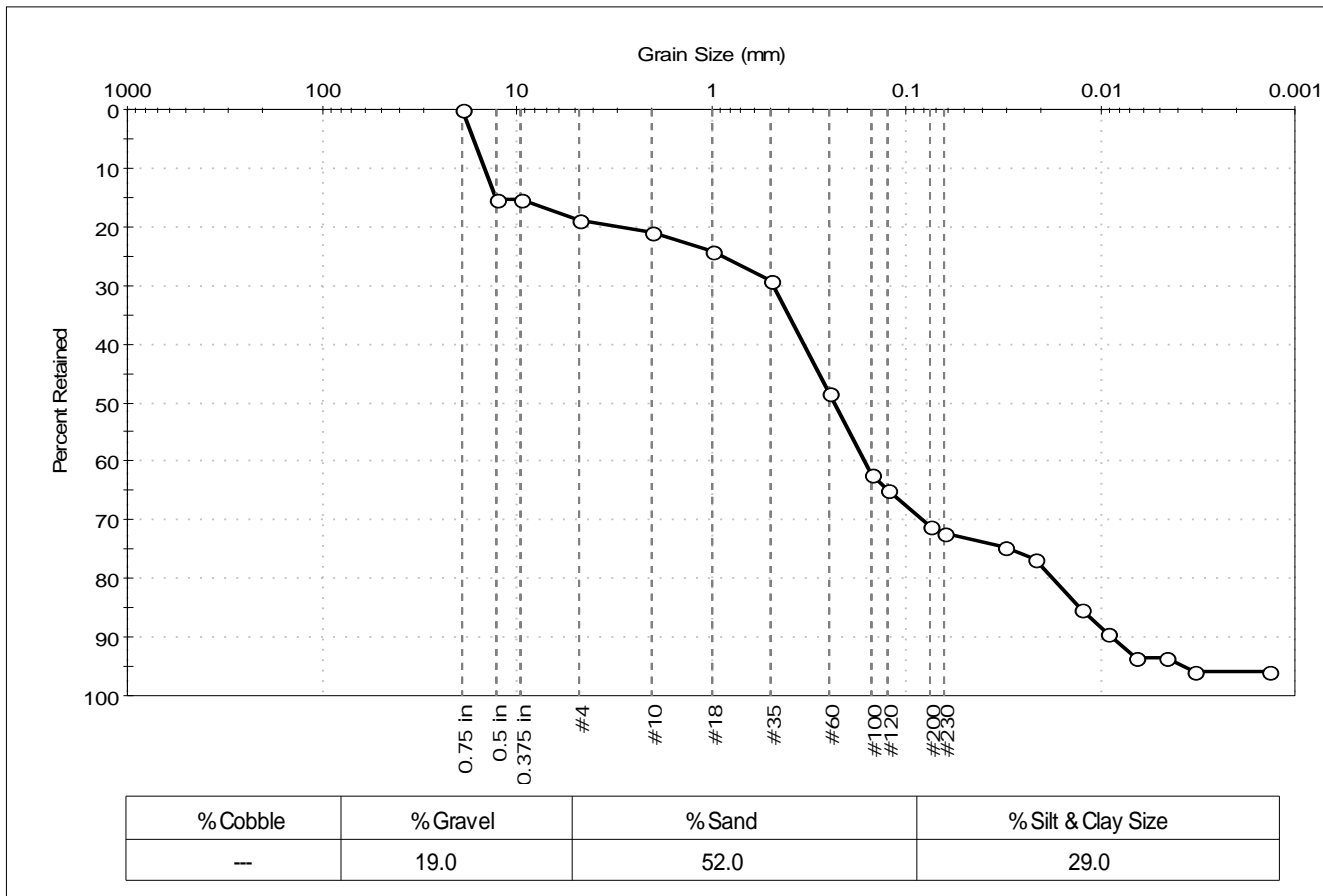
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	220-14LTM	Sample Type:	bag
Sample ID:	NBH14-0030	Test Date:	10/21/14
Depth:	---	Test Id:	309477
Test Comment:	---		
Sample Description:	Wet, very dark gray silty sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.70	15		
0.375 in	9.50	15		
#4	4.75	19		
#10	2.00	21		
#18	1.00	24		
#35	0.50	29		
#60	0.25	48		
#100	0.15	62		
#120	0.12	65		
#200	0.075	71		
#230	0.063	72		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0313	75		
---	0.0215	77		
---	0.0125	85		
---	0.0092	89		
---	0.0066	94		
---	0.0046	94		
---	0.0033	96		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 12.7817 mm	D ₃₀ = 0.0816 mm
D ₆₀ = 0.3378 mm	D ₁₅ = 0.0126 mm
D ₅₀ = 0.2349 mm	D ₁₀ = 0.0088 mm
C _u = 38.386	C _c = 2.240

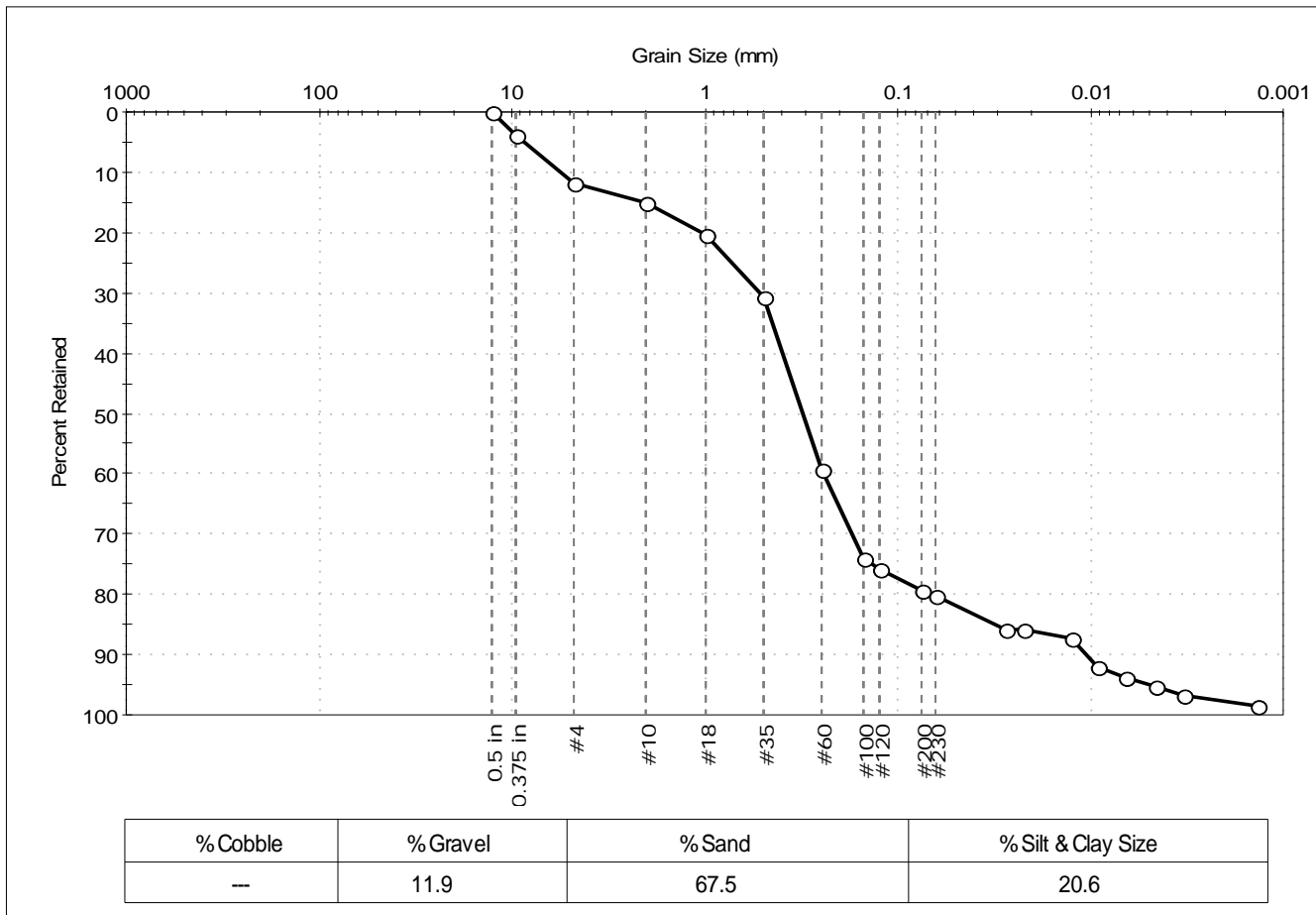
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 220-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0031	Test Date: 10/20/14	Depth: ---	Test Id: 309479
Test Comment: ---			
Sample Description: Wet, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	4		
#4	4.75	12		
#10	2.00	15		
#18	1.00	20		
#35	0.50	31		
#60	0.25	59		
#100	0.15	74		
#120	0.12	76		
#200	0.075	79		
#230	0.063	80		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0273	86		
---	0.0224	86		
---	0.0126	87		
---	0.0092	92		
---	0.0066	94		
---	0.0046	95		
---	0.0033	97		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 1.9810 mm	D ₃₀ = 0.1729 mm
D ₆₀ = 0.3986 mm	D ₁₅ = 0.0307 mm
D ₅₀ = 0.3135 mm	D ₁₀ = 0.0106 mm
C _u = 37.604	C _c = 7.075

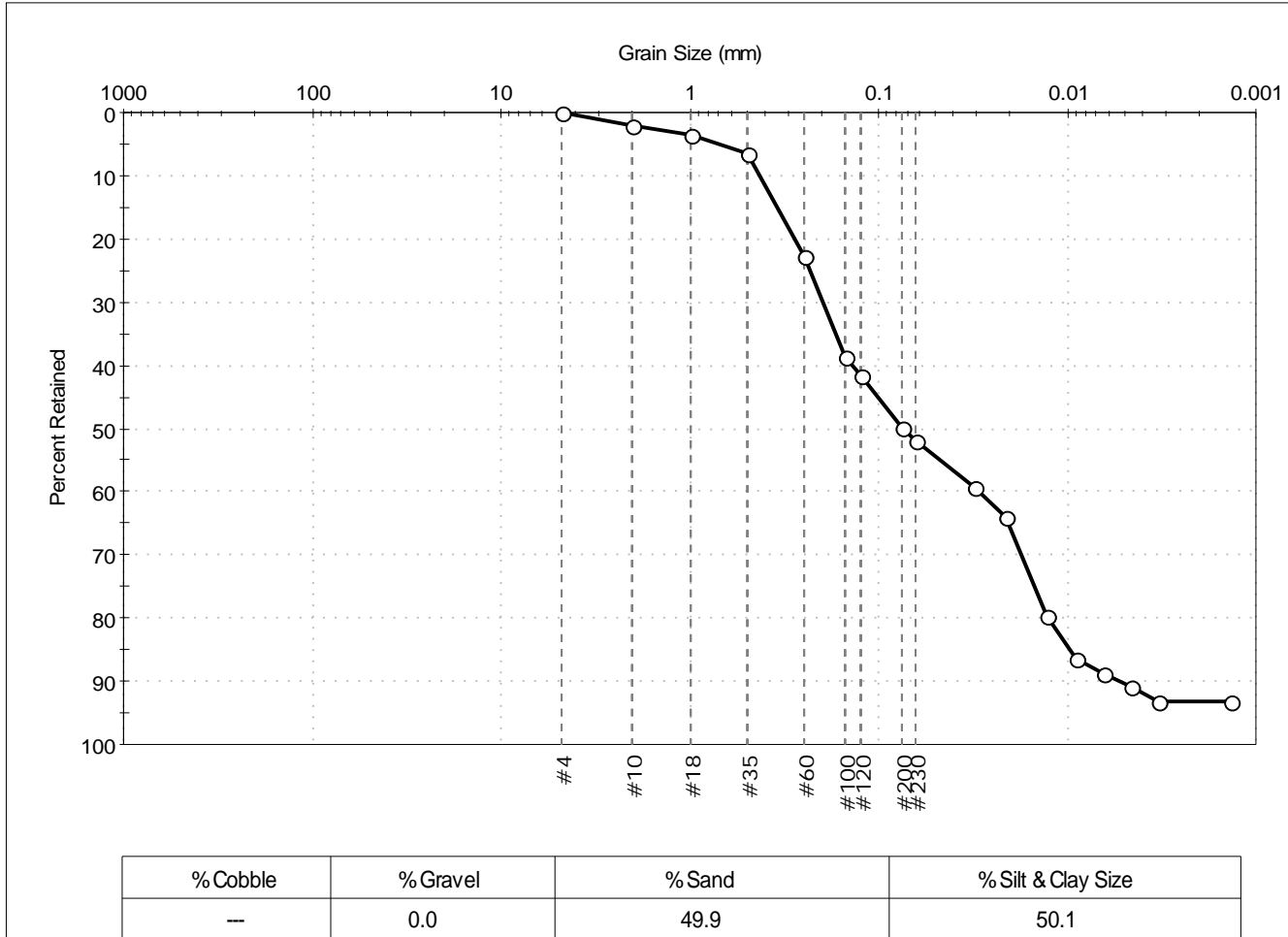
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 220-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0032	Test Date: 10/21/14	Test Id: 309480	
Depth: ---	Test Comment: ---		
Sample Description: Moist, very dark gray sandy silt	Sample Comment: ---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	4		
#35	0.50	6		
#60	0.25	23		
#100	0.15	39		
#120	0.12	42		
#200	0.075	50		
#230	0.063	52		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0314	59		
---	0.0213	64		
---	0.0127	80		
---	0.0091	86		
---	0.0065	89		
---	0.0046	91		
---	0.0033	93		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.3470 mm	D ₃₀ = 0.0174 mm
D ₆₀ = 0.1375 mm	D ₁₅ = 0.0098 mm
D ₅₀ = 0.0743 mm	D ₁₀ = 0.0053 mm
C _u = 25.943	C _c = 0.415

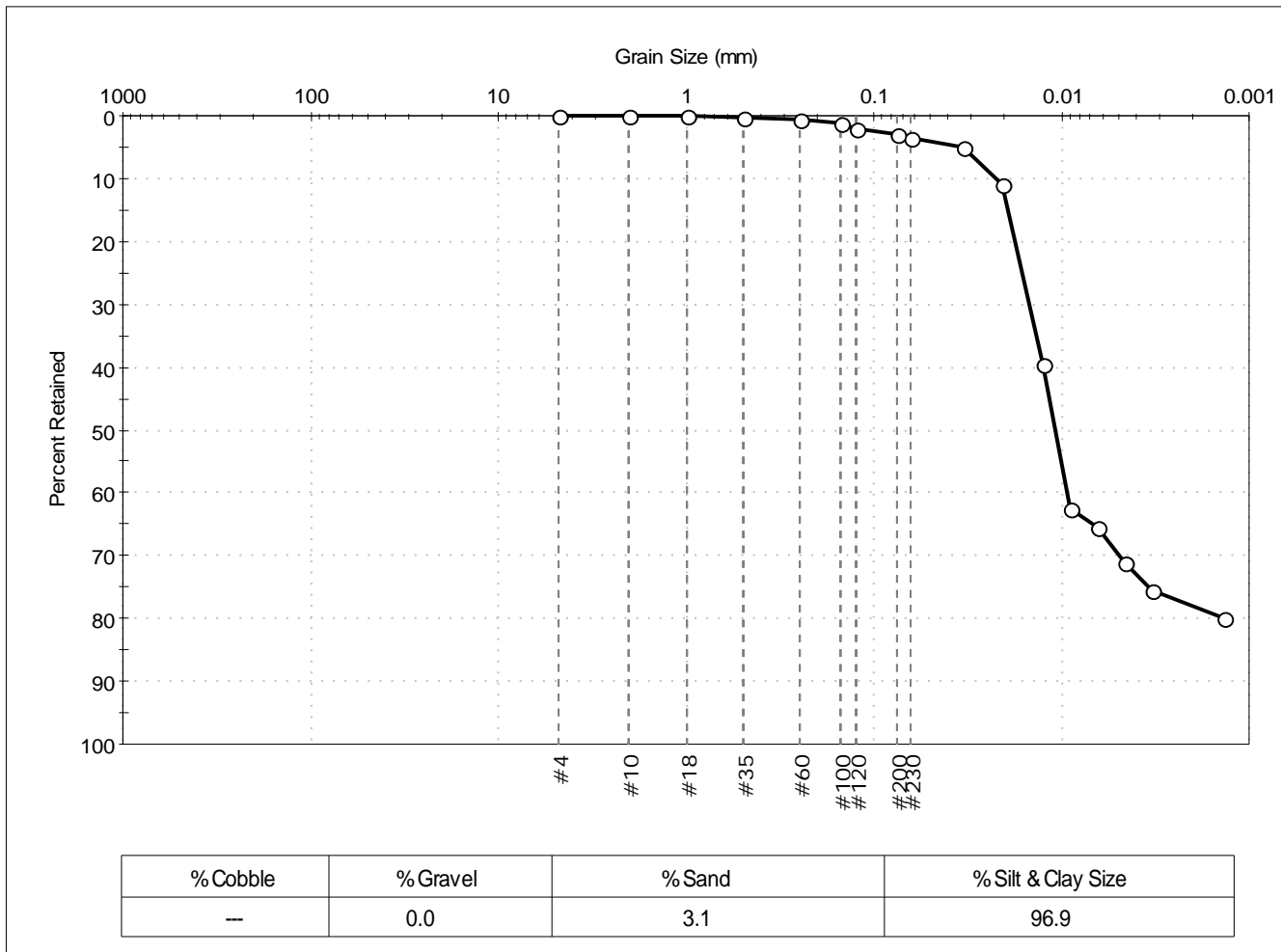
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 235-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0033
 Test Date: 10/21/14
 Checked By: jdt
 Depth: ---
 Test Id: 309481
 Test Comment: ---
 Sample Description: Wet, very dark grayish brown silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	3		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	5		
---	0.0207	11		
---	0.0126	40		
---	0.0091	63		
---	0.0065	65		
---	0.0046	71		
---	0.0033	76		
---	0.0014	80		

<u>Coefficients</u>	
D ₈₅ = 0.0193 mm	D ₃₀ = 0.0049 mm
D ₆₀ = 0.0125 mm	D ₁₅ = N/A
D ₅₀ = 0.0109 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

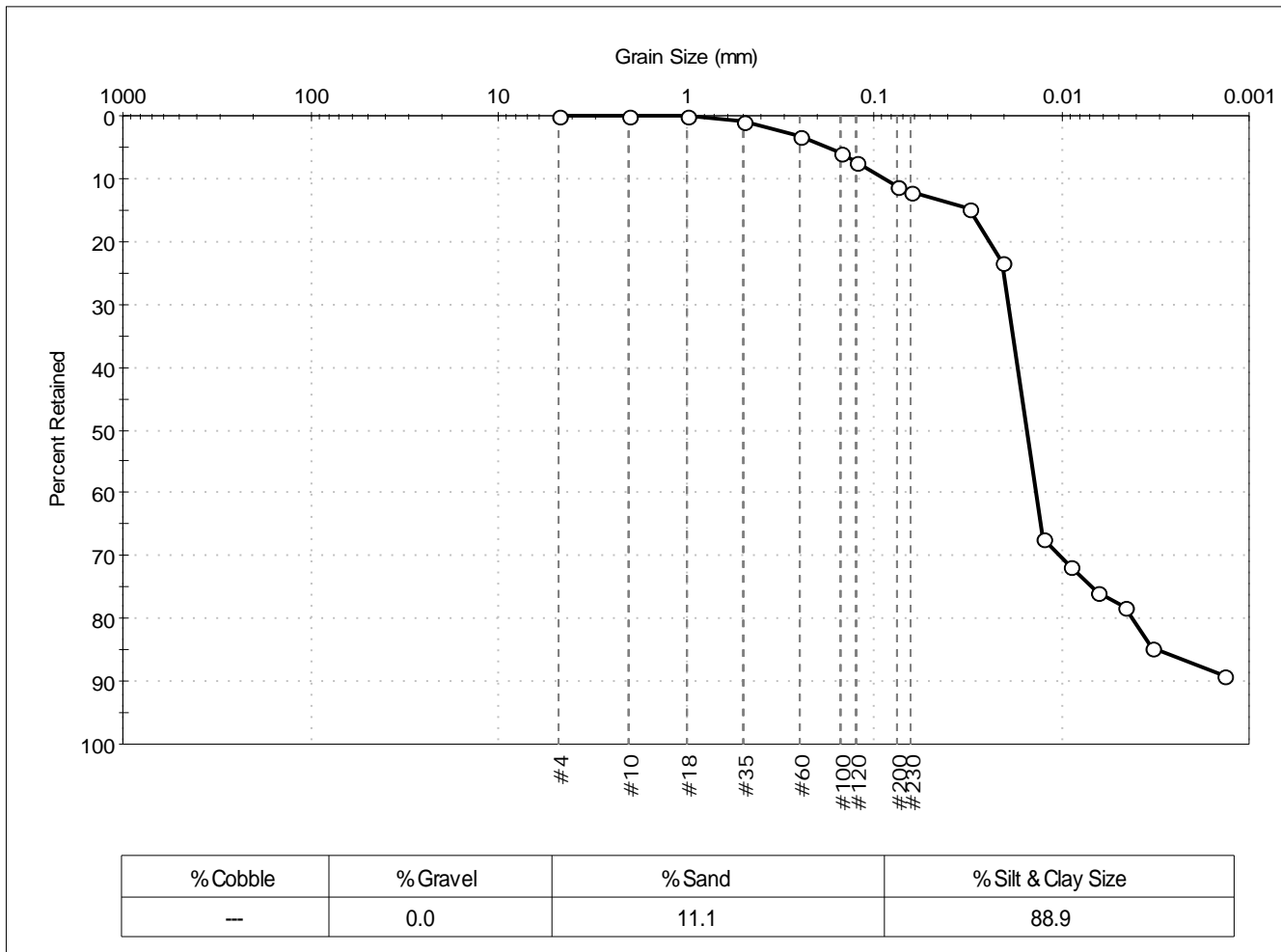
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 235-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0034	Test Date: 10/20/14	Test Id: 309482	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	3		
#100	0.15	6		
#120	0.12	7		
#200	0.075	11		
#230	0.063	12		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0314	15		
---	0.0209	23		
---	0.0127	67		
---	0.0091	72		
---	0.0065	76		
---	0.0046	78		
---	0.0033	85		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.0308 mm	D ₃₀ = 0.0102 mm
D ₆₀ = 0.0173 mm	D ₁₅ = 0.0031 mm
D ₅₀ = 0.0154 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

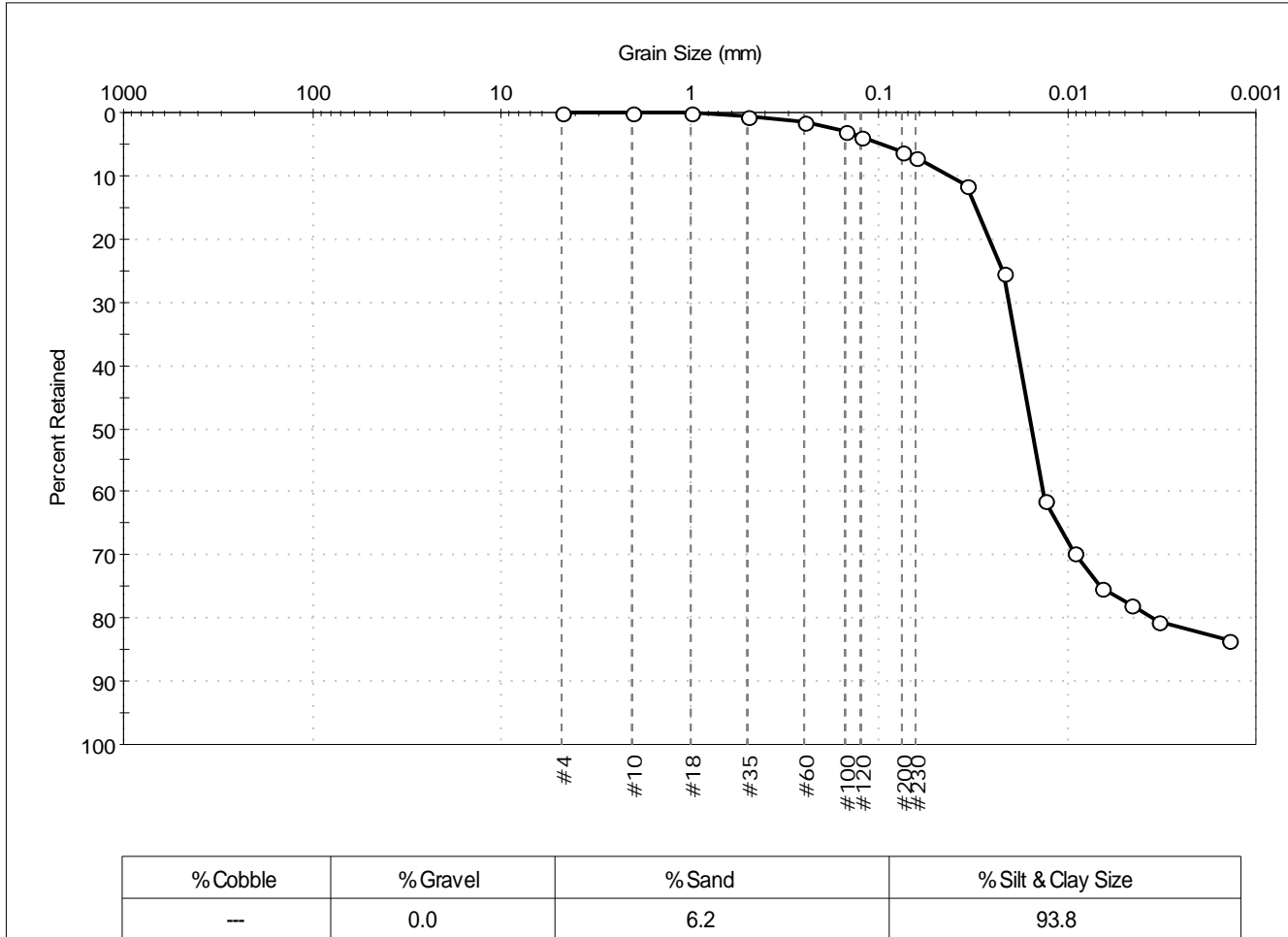
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	235-14LTM	Sample Type:	bag
Sample ID:	NBH14-0035	Test Date:	10/23/14
Depth:	---	Test Id:	309483
Test Comment:	---		
Sample Description:	Wet, very dark gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	3		
#120	0.12	4		
#200	0.075	6		
#230	0.063	7		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	12		
---	0.0219	25		
---	0.0130	61		
---	0.0093	70		
---	0.0066	75		
---	0.0047	78		
---	0.0033	81		
---	0.0014	83		

<u>Coefficients</u>	
D ₈₅ = 0.0308 mm	D ₃₀ = 0.0091 mm
D ₆₀ = 0.0177 mm	D ₁₅ = N/A
D ₅₀ = 0.0153 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

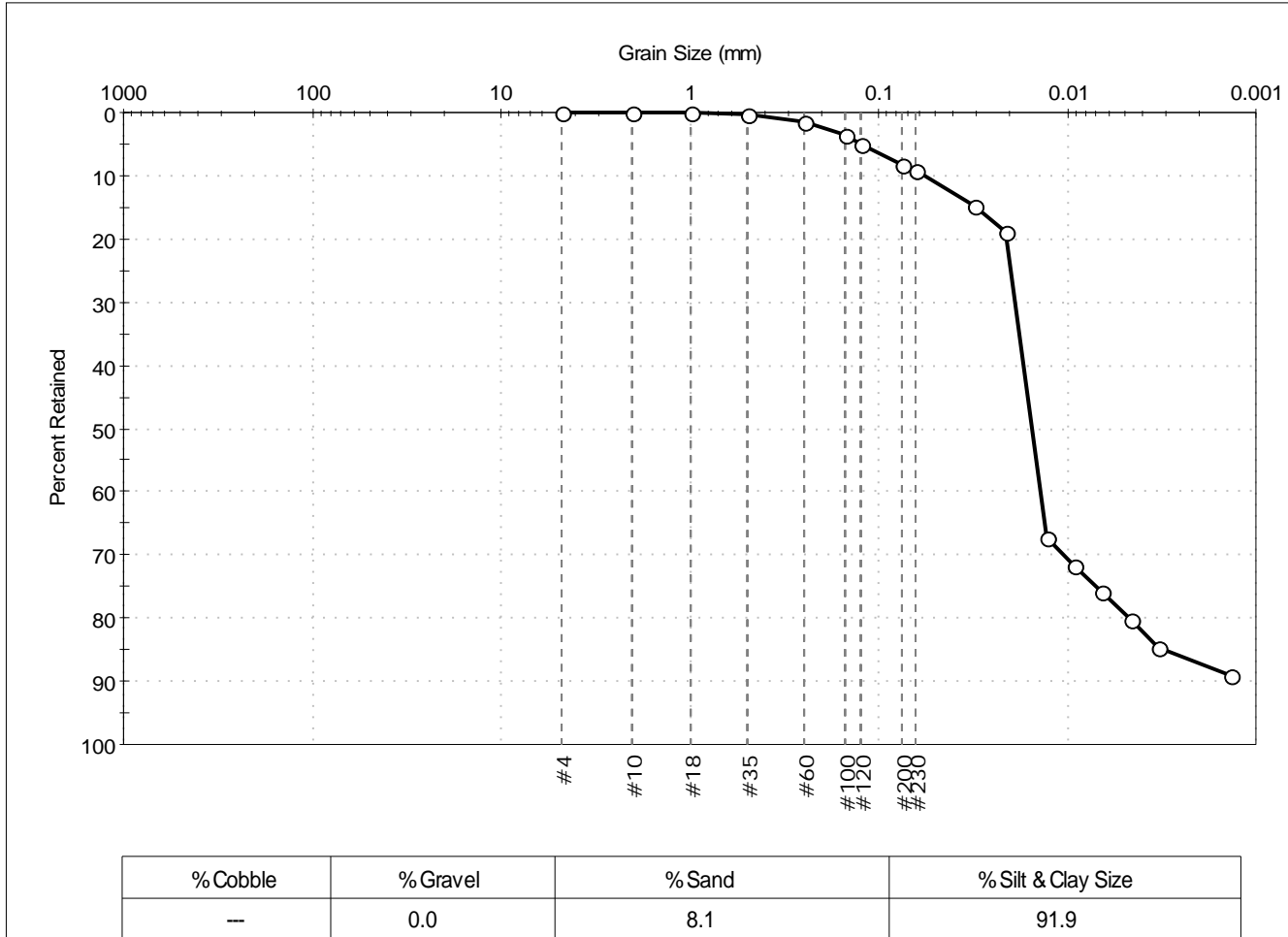
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 235-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0036	Test Date: 10/20/14	Test Id: 309484	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	4		
#120	0.12	5		
#200	0.075	8		
#230	0.063	9		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0310	15		
---	0.0210	19		
---	0.0128	67		
---	0.0091	72		
---	0.0065	76		
---	0.0046	80		
---	0.0033	85		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.0301 mm	D ₃₀ = 0.0103 mm
D ₆₀ = 0.0169 mm	D ₁₅ = 0.0031 mm
D ₅₀ = 0.0153 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

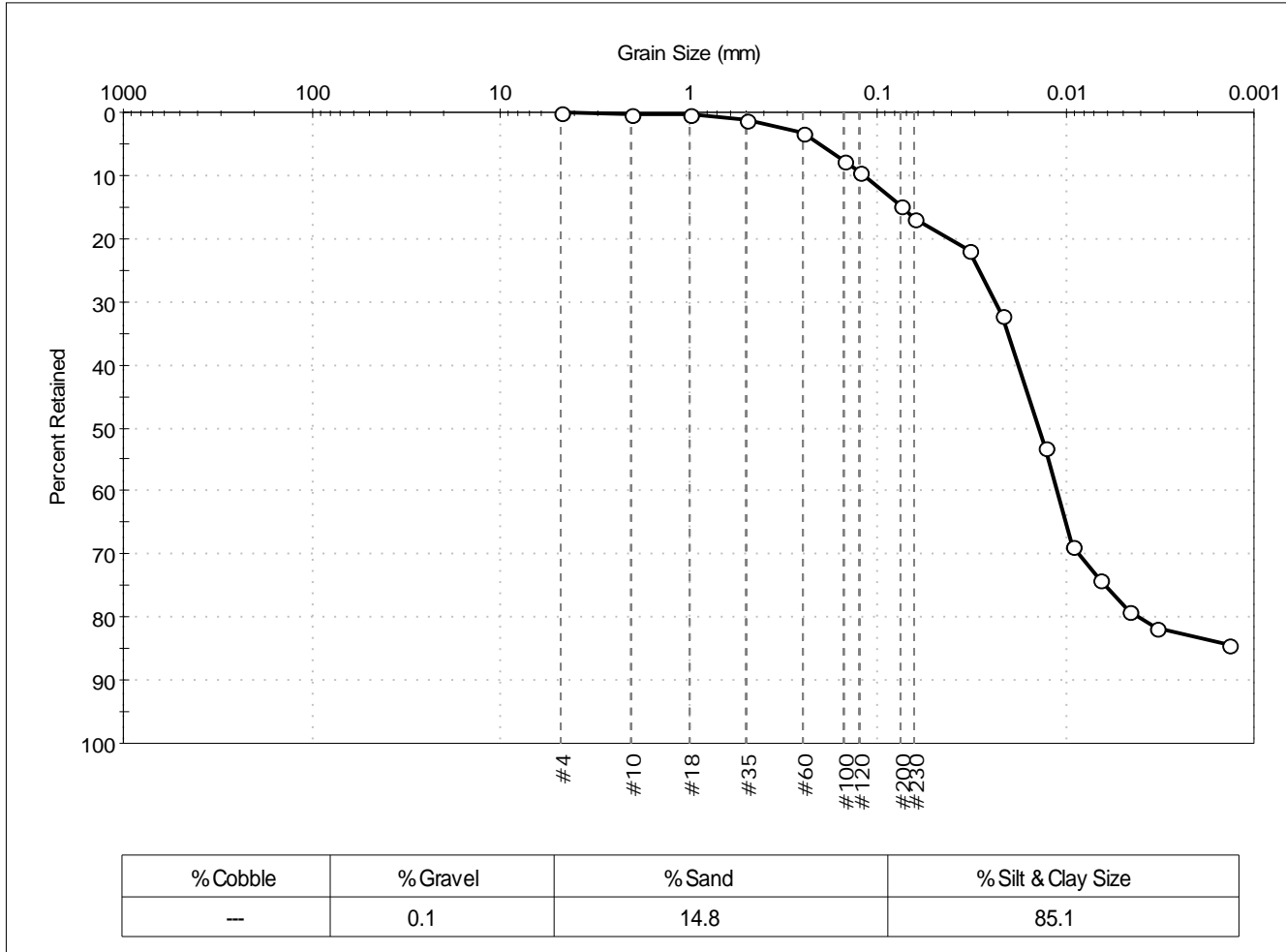
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 240-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0037	Test Date: 10/21/14	Test Id: 309485	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	3		
#100	0.15	8		
#120	0.12	9		
#200	0.075	15		
#230	0.063	17		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0330	22		
---	0.0217	32		
---	0.0128	53		
---	0.0092	69		
---	0.0065	74		
---	0.0046	79		
---	0.0033	82		
---	0.0014	84		

<u>Coefficients</u>	
D ₈₅ = 0.0739 mm	D ₃₀ = 0.0084 mm
D ₆₀ = 0.0178 mm	D ₁₅ = N/A
D ₅₀ = 0.0139 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

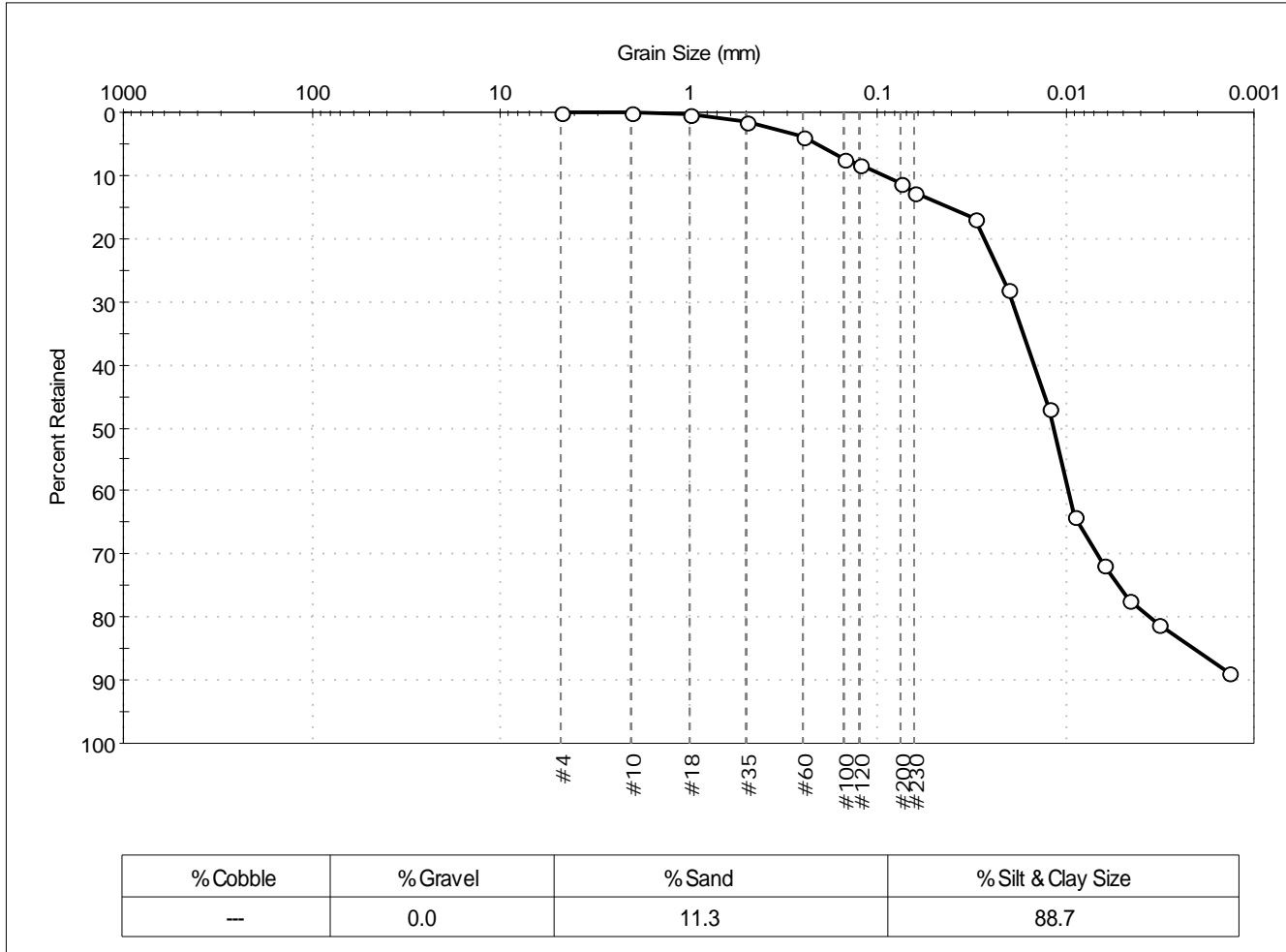
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 240-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0038	Test Date: 10/23/14	Checked By: jdt	
Depth: ---	Test Id: 309486		
Test Comment: ---			
Sample Description: Moist, very dark gray silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	4		
#100	0.15	7		
#120	0.12	8		
#200	0.075	11		
#230	0.063	13		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0305	17		
---	0.0204	28		
---	0.0122	47		
---	0.0089	64		
---	0.0063	72		
---	0.0046	77		
---	0.0033	81		
---	0.0014	89		

Coefficients	
D ₈₅ = 0.0413 mm	D ₃₀ = 0.0068 mm
D ₆₀ = 0.0147 mm	D ₁₅ = 0.0021 mm
D ₅₀ = 0.0115 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

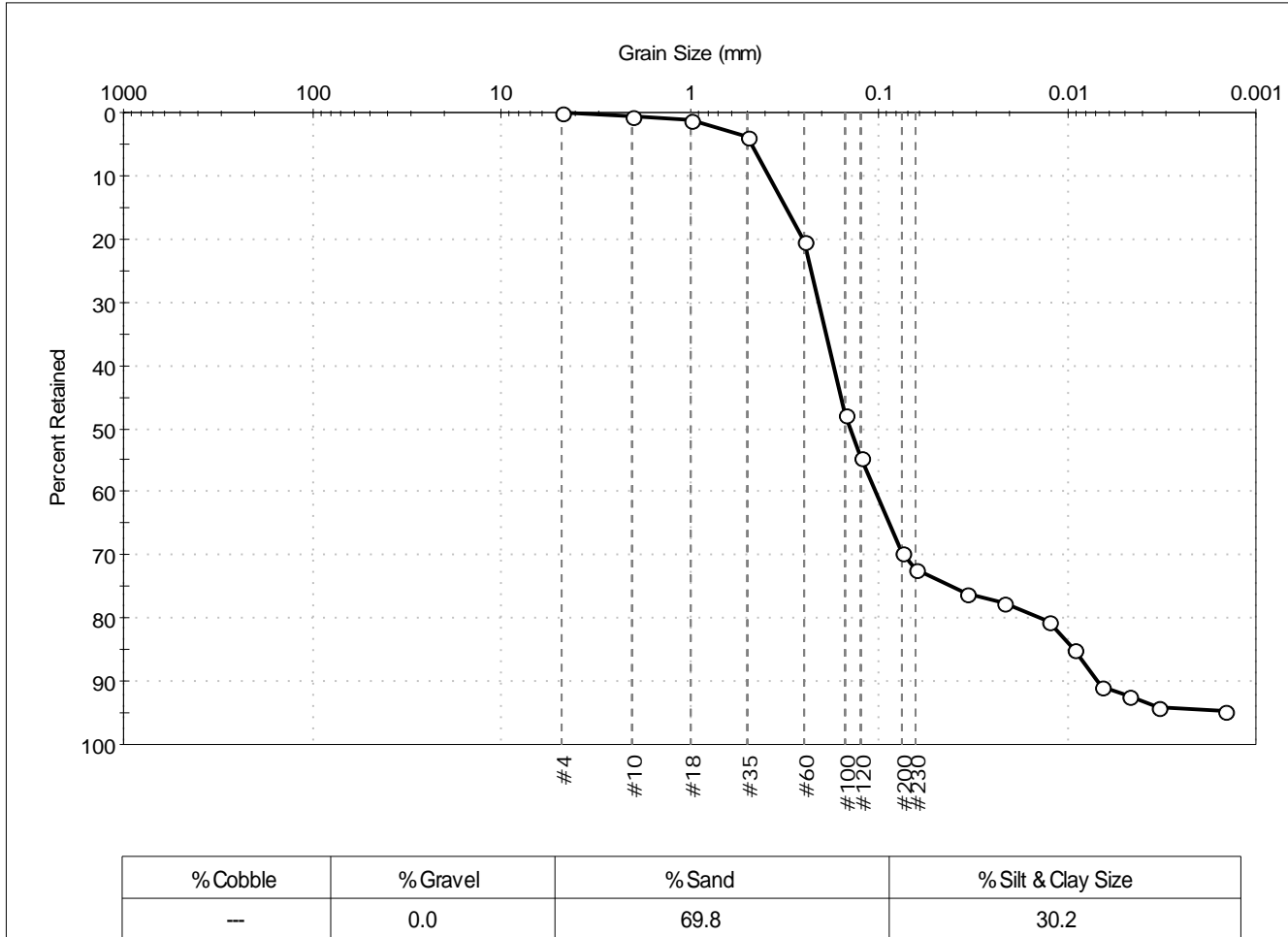
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Specific Gravity	: 2.65
Separation of Sample	: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 240-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0039	Test Date: 10/20/14	Depth: ---	Test Id: 309487
Test Comment: ---	Sample Description: Moist, dark gray silty sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	4		
#60	0.25	20		
#100	0.15	48		
#120	0.12	55		
#200	0.075	70		
#230	0.063	72		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	76		
---	0.0218	78		
---	0.0127	81		
---	0.0091	85		
---	0.0066	91		
---	0.0047	92		
---	0.0033	94		
---	0.0015	95		

Coefficients	
D ₈₅ = 0.3121 mm	D ₃₀ = 0.0738 mm
D ₆₀ = 0.1735 mm	D ₁₅ = 0.0092 mm
D ₅₀ = 0.1417 mm	D ₁₀ = 0.0069 mm
C _u = 25.145	C _c = 4.550

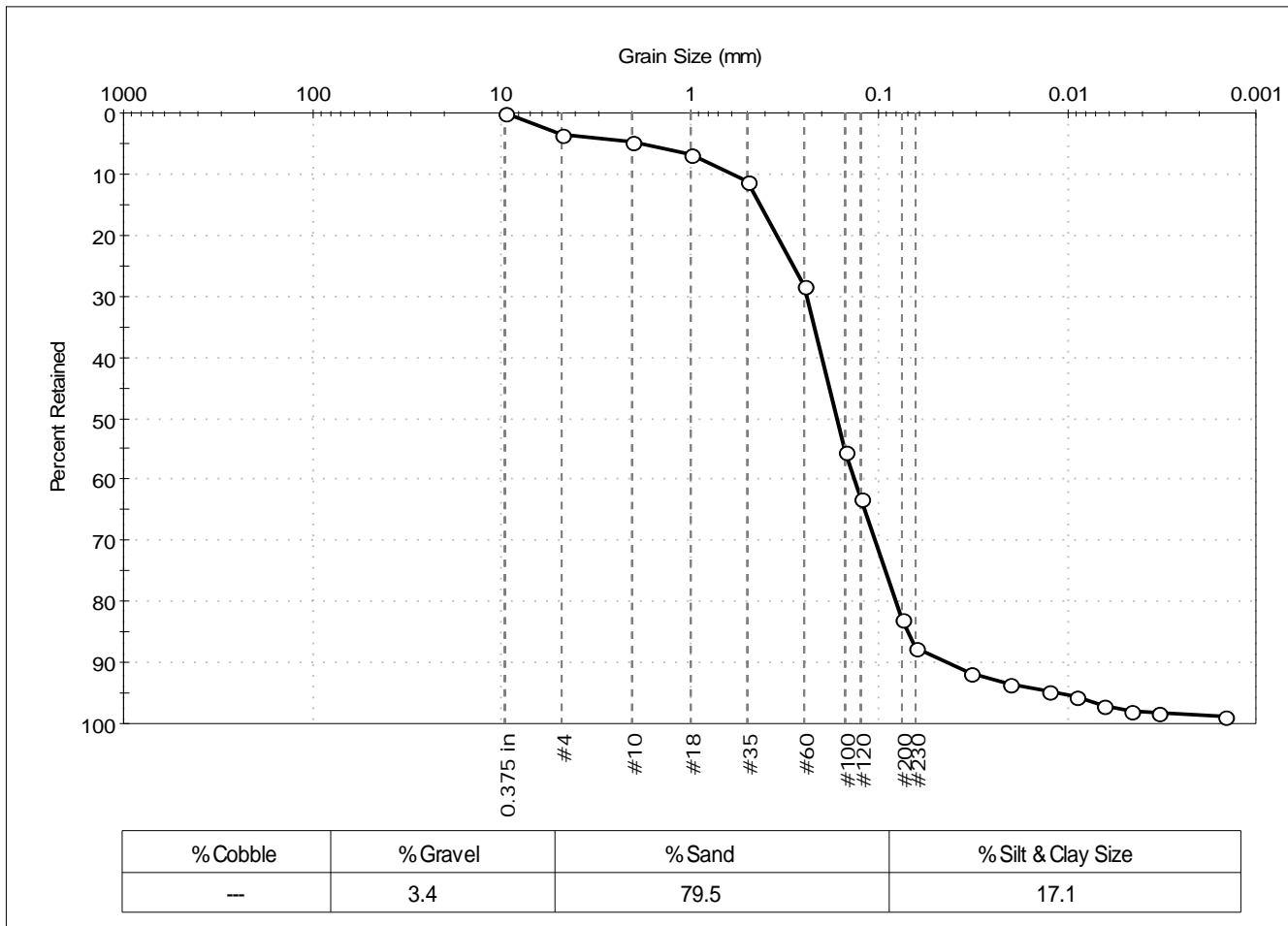
Classification	
ASTM	N/A
AASHTO	Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 240-14LTM	Sample Type: bag
Sample ID: NBH14-0040	Test Date: 11/18/14
Depth: ---	Test Id: 309488
Tested By: jbr	Checked By: jdt
Test Comment: ---	
Sample Description: Wet, greenish gray silty sand	
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	5		
#18	1.00	7		
#35	0.50	11		
#60	0.25	28		
#100	0.15	55		
#120	0.12	63		
#200	0.075	83		
#230	0.063	88		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	92		
---	0.0201	93		
---	0.0124	95		
---	0.0089	96		
---	0.0064	97		
---	0.0046	98		
---	0.0033	98		
---	0.0015	99		

<u>Coefficients</u>	
D ₈₅ = 0.4299 mm	D ₃₀ = 0.1048 mm
D ₆₀ = 0.2003 mm	D ₁₅ = 0.0694 mm
D ₅₀ = 0.1660 mm	D ₁₀ = 0.0428 mm
C _u = 4.680	C _c = 1.281

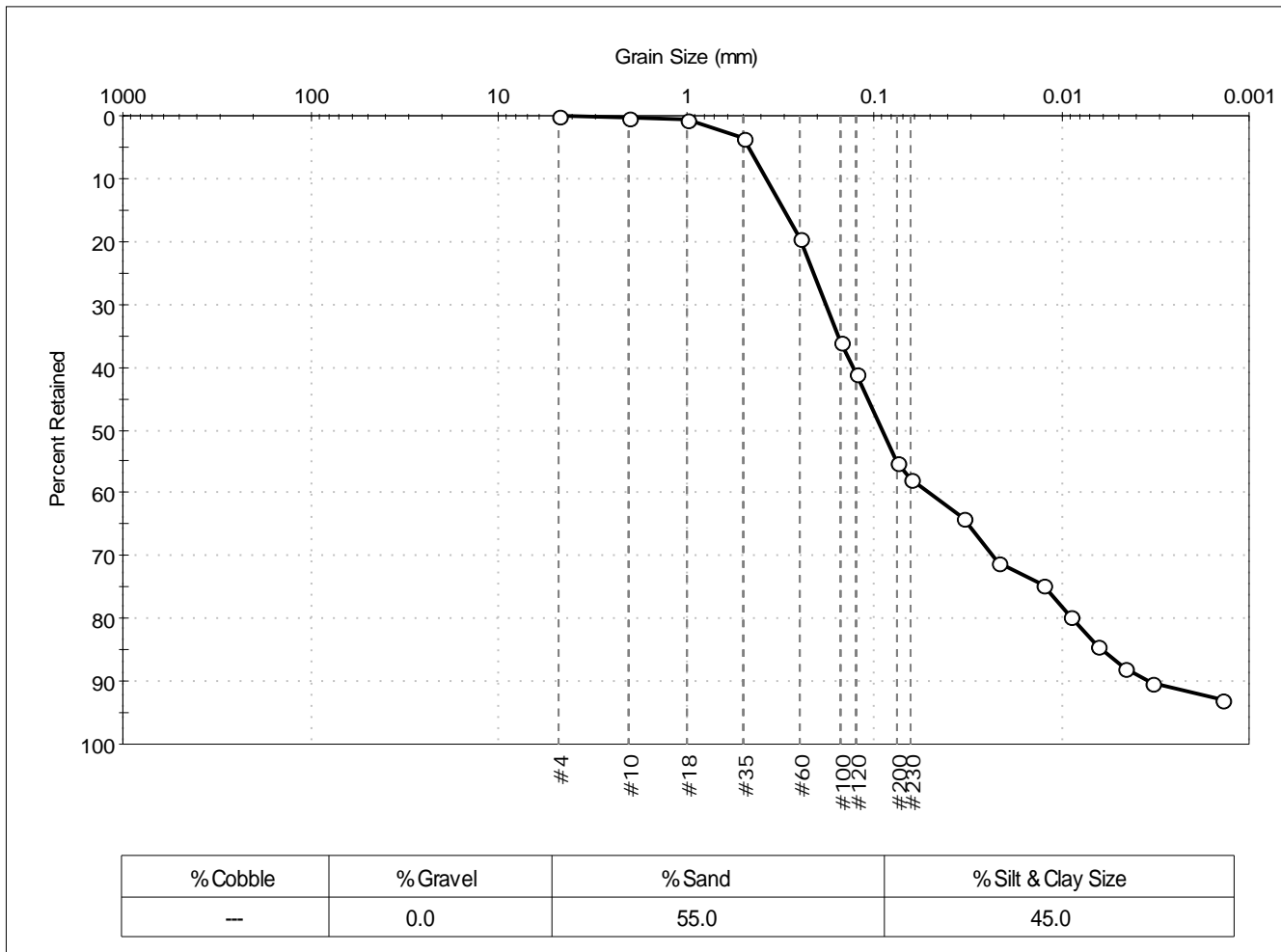
<u>Classification</u>	
ASTM	N/A
AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 245-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0041	Test Date: 10/21/14	Test Id: 309489	
Depth: ---	Test Comment: ---		
Sample Description: Wet, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	19		
#100	0.15	36		
#120	0.12	41		
#200	0.075	55		
#230	0.063	58		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	64		
---	0.0216	71		
---	0.0126	75		
---	0.0090	80		
---	0.0064	84		
---	0.0046	88		
---	0.0033	90		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.3023 mm	D ₃₀ = 0.0231 mm
D ₆₀ = 0.1297 mm	D ₁₅ = 0.0060 mm
D ₅₀ = 0.0901 mm	D ₁₀ = 0.0034 mm
C _u = 38.147	C _c = 1.210

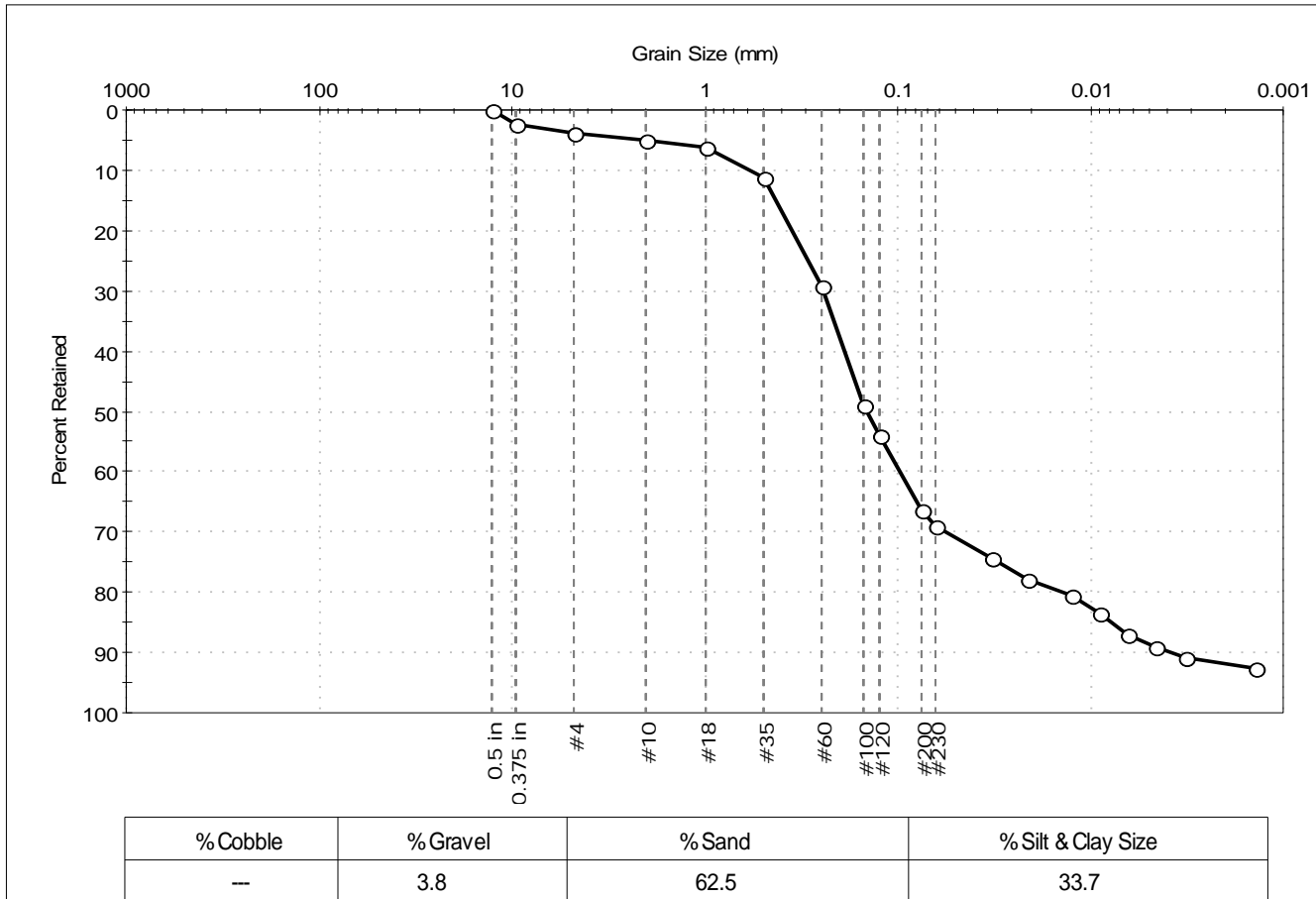
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 245-14LTM	Sample Type: bag
Sample ID: NBH14-0042	Test Date: 10/15/14
Depth: ---	Test Id: 309490
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dark gray silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	2		
#4	4.75	4		
#10	2.00	5		
#18	1.00	6		
#35	0.50	11		
#60	0.25	29		
#100	0.15	49		
#120	0.12	54		
#200	0.075	66		
#230	0.063	69		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	74		
---	0.0211	78		
---	0.0127	81		
---	0.0090	83		
---	0.0065	87		
---	0.0046	89		
---	0.0033	91		
---	0.0014	93		

Coefficients

D ₈₅ = 0.4319 mm	D ₃₀ = 0.0555 mm
D ₆₀ = 0.1891 mm	D ₁₅ = 0.0078 mm
D ₅₀ = 0.1445 mm	D ₁₀ = 0.0038 mm
C _u = 49.763	C _c = 4.287

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

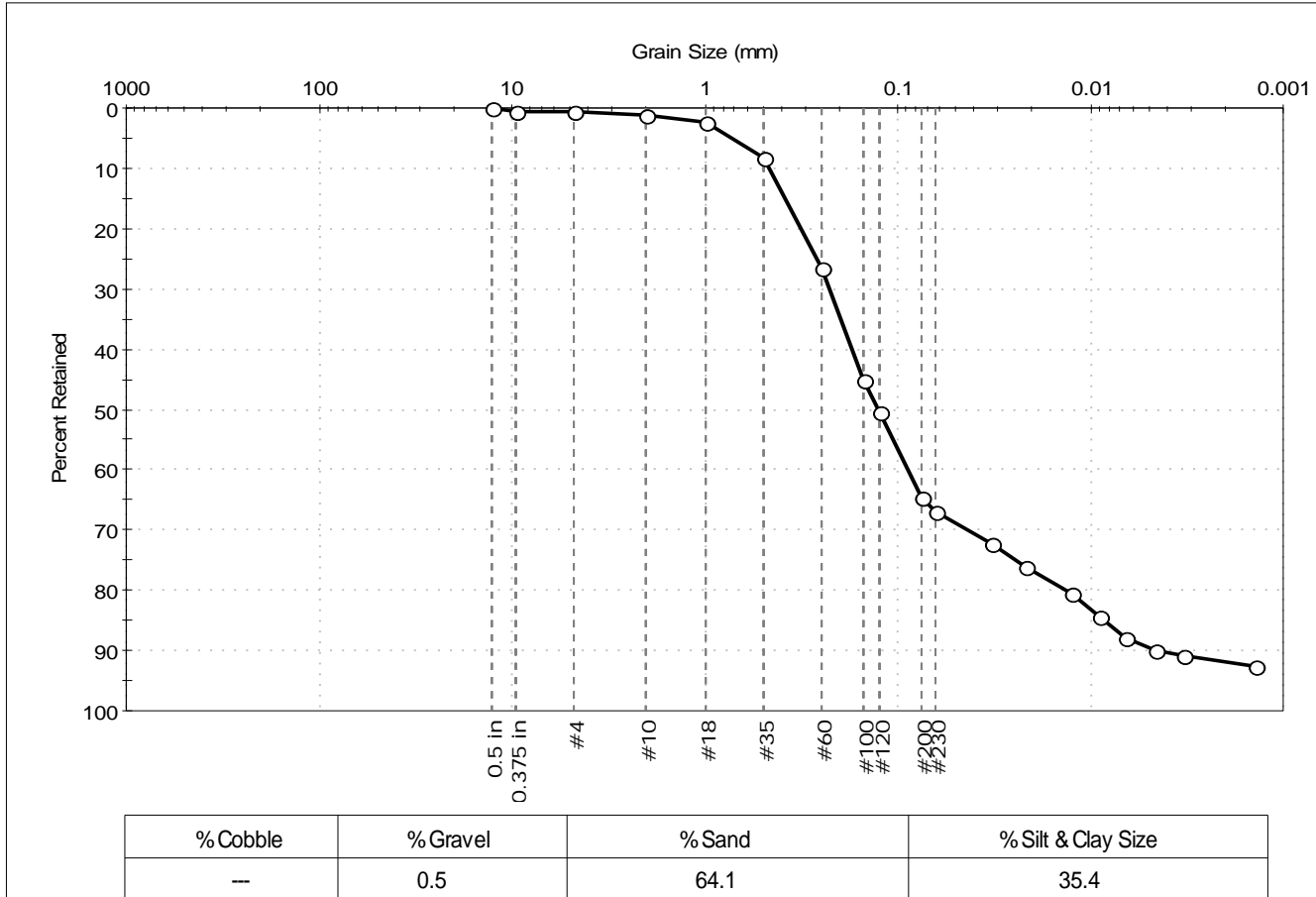
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	245-14LTM	Sample Type:	bag
Sample ID:	NBH14-0043	Test Date:	11/18/14
Depth:	---	Test Id:	309491
Test Comment:	---		
Sample Description:	Moist, very dark gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	8		
#60	0.25	27		
#100	0.15	45		
#120	0.12	50		
#200	0.075	65		
#230	0.063	67		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0329	72		
---	0.0217	76		
---	0.0127	81		
---	0.0091	84		
---	0.0065	88		
---	0.0046	90		
---	0.0033	91		
---	0.0014	93		

Coefficients

D ₈₅ = 0.3889 mm	D ₃₀ = 0.0439 mm
D ₆₀ = 0.1731 mm	D ₁₅ = 0.0085 mm
D ₅₀ = 0.1264 mm	D ₁₀ = 0.0044 mm
C _u = 39.341	C _c = 2.530

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

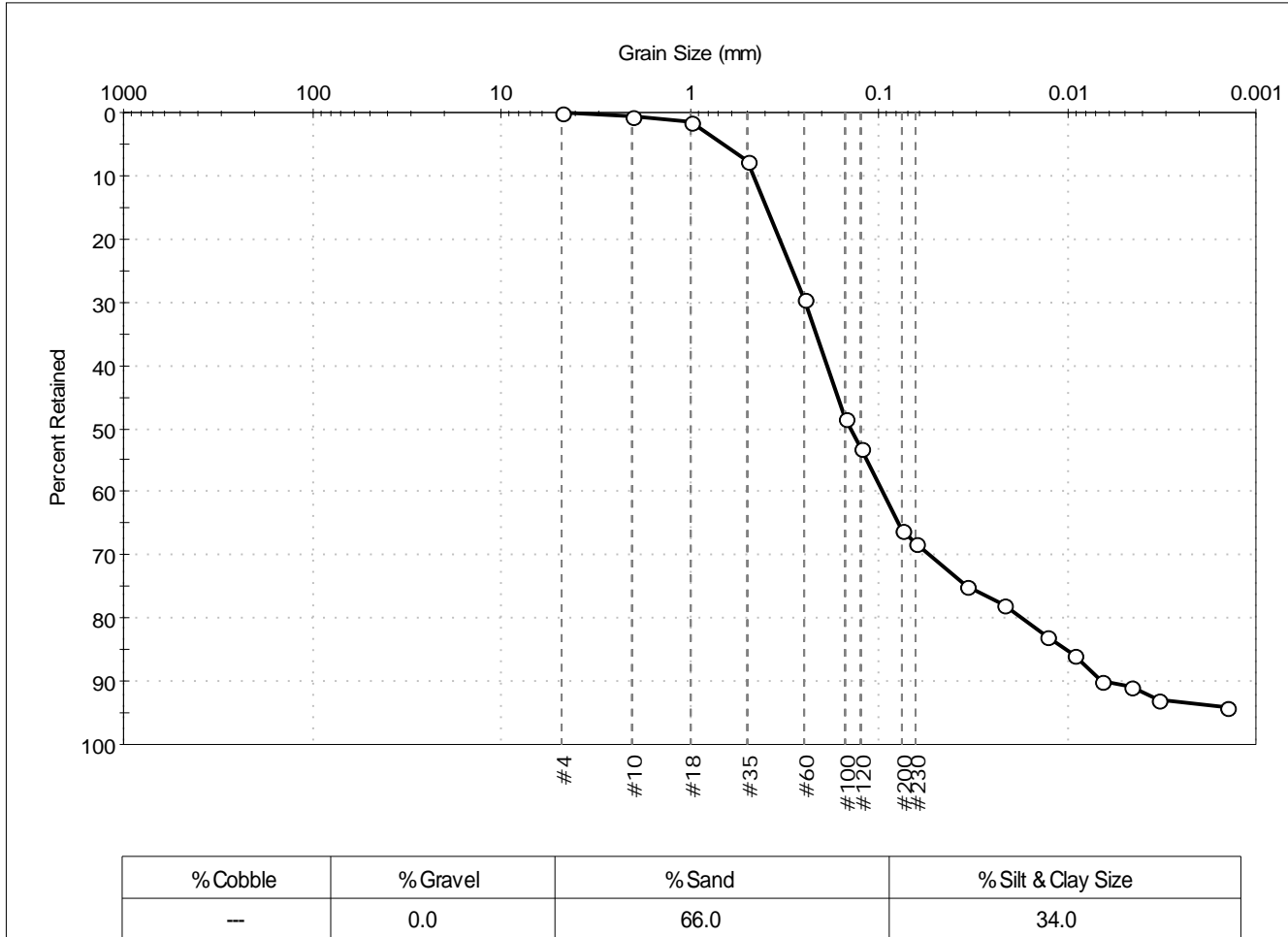
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 245-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0044	Test Date: 11/19/14	Test Id: 309492	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	1		
#35	0.50	8		
#60	0.25	30		
#100	0.15	48		
#120	0.12	53		
#200	0.075	66		
#230	0.063	68		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	75		
---	0.0216	78		
---	0.0128	83		
---	0.0091	86		
---	0.0065	90		
---	0.0046	91		
---	0.0033	93		
---	0.0014	94		

<u>Coefficients</u>	
D ₈₅ = 0.3963 mm	D ₃₀ = 0.0531 mm
D ₆₀ = 0.1881 mm	D ₁₅ = 0.0101 mm
D ₅₀ = 0.1406 mm	D ₁₀ = 0.0064 mm
C _u = 29.391	C _c = 2.342

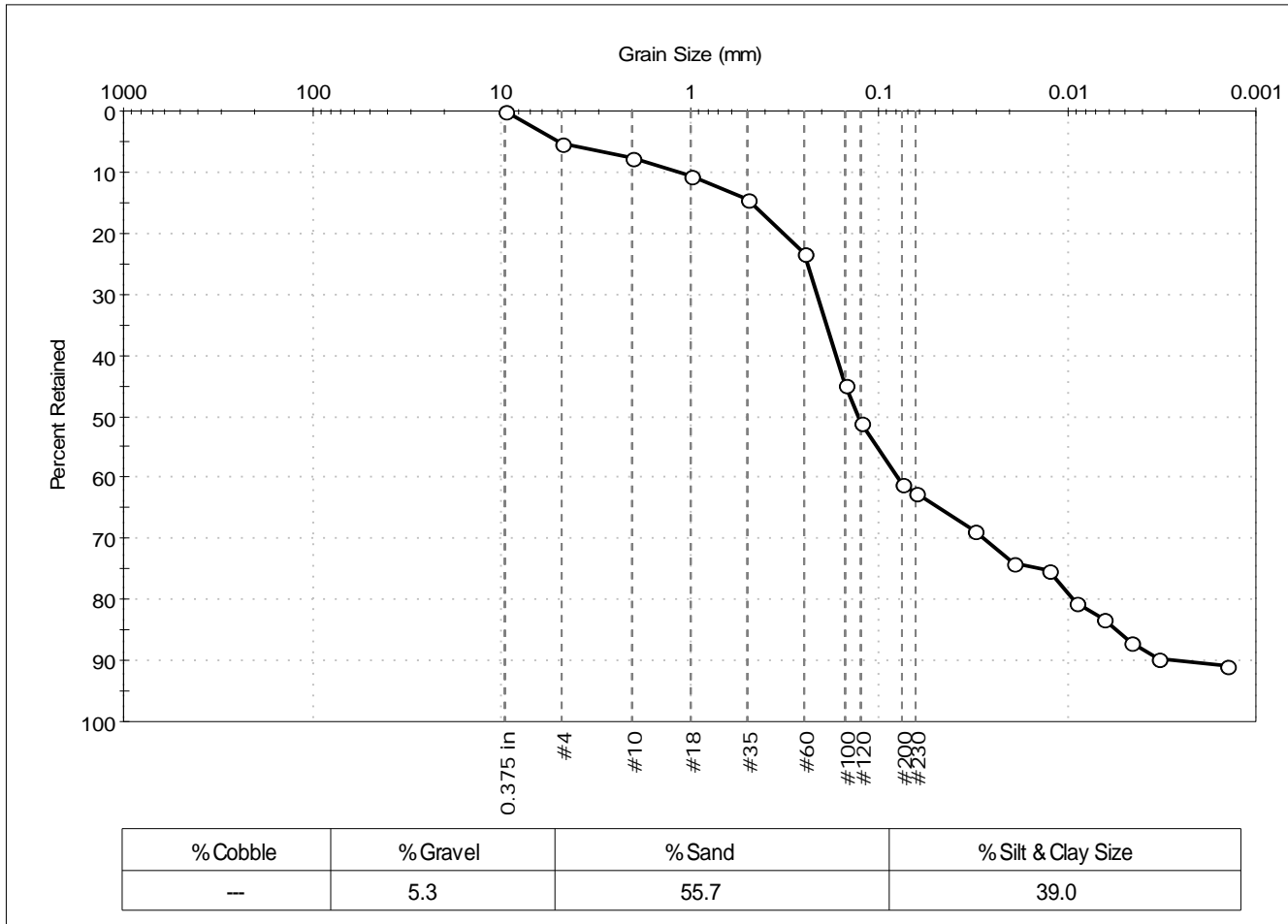
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 146-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0045
 Test Date: 11/03/14
 Checked By: jdt
 Depth: ---
 Test Id: 309493
 Test Comment: ---
 Sample Description: Wet, very dark gray silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	5		
#10	2.00	8		
#18	1.00	11		
#35	0.50	14		
#60	0.25	23		
#100	0.15	45		
#120	0.12	51		
#200	0.075	61		
#230	0.063	62		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0310	69		
---	0.0192	74		
---	0.0126	75		
---	0.0091	81		
---	0.0064	83		
---	0.0046	87		
---	0.0033	90		
---	0.0014	91		

Coefficients

D ₈₅ = 0.4757 mm	D ₃₀ = 0.0279 mm
D ₆₀ = 0.1678 mm	D ₁₅ = 0.0055 mm
D ₅₀ = 0.1286 mm	D ₁₀ = 0.0026 mm
C _u = 64.538	C _c = 1.784

Classification

ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

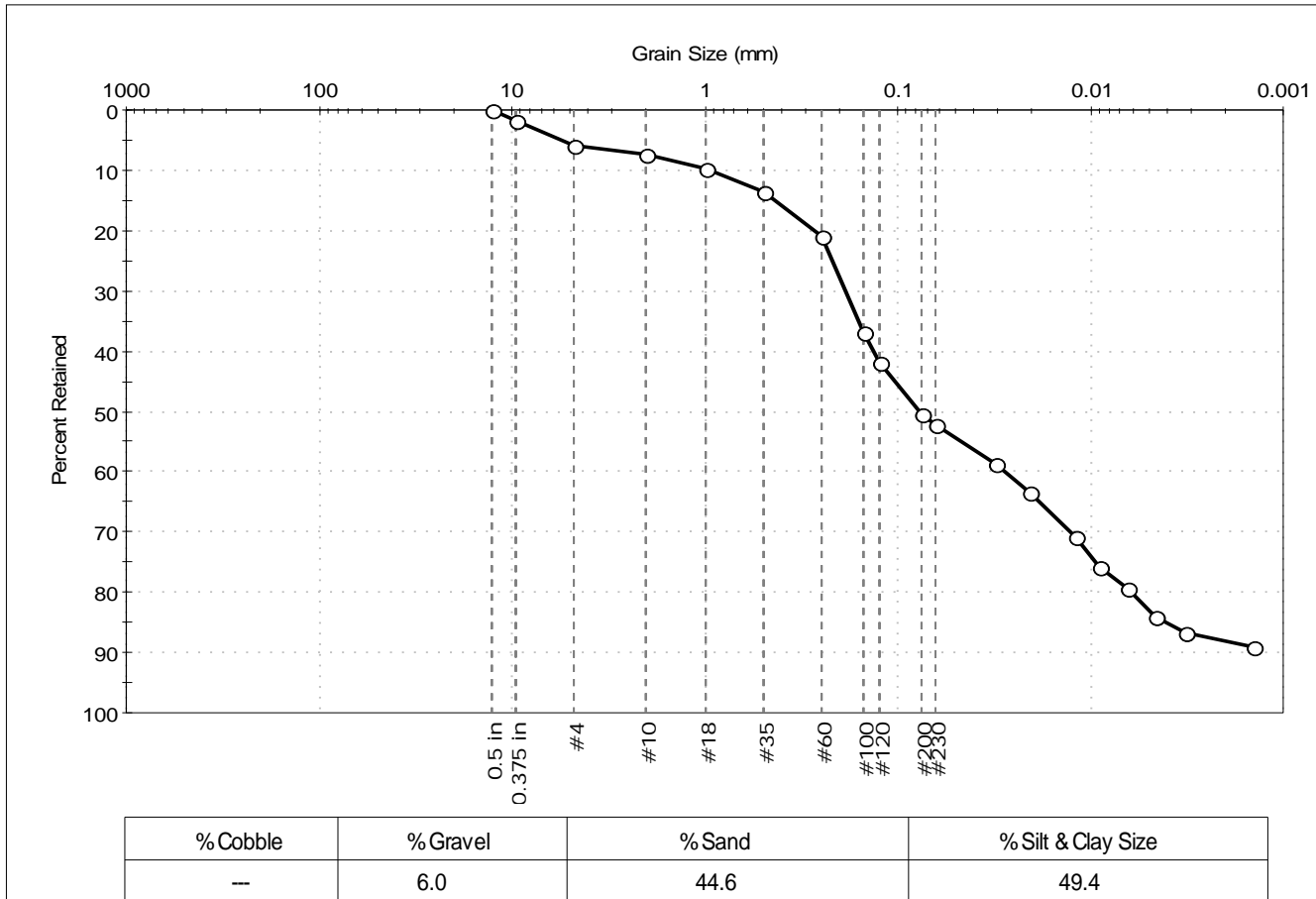
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 146-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0046	Test Date: 10/21/14	Depth: ---	Test Id: 309494
Test Comment: ---	Sample Description: Wet, very dark gray silty sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	2		
#4	4.75	6		
#10	2.00	7		
#18	1.00	10		
#35	0.50	13		
#60	0.25	21		
#100	0.15	37		
#120	0.12	42		
#200	0.075	51		
#230	0.063	52		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0312	59		
---	0.0206	64		
---	0.0120	71		
---	0.0090	76		
---	0.0064	79		
---	0.0046	84		
---	0.0032	87		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.4317 mm	D ₃₀ = 0.0127 mm
D ₆₀ = 0.1337 mm	D ₁₅ = 0.0041 mm
D ₅₀ = 0.0774 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

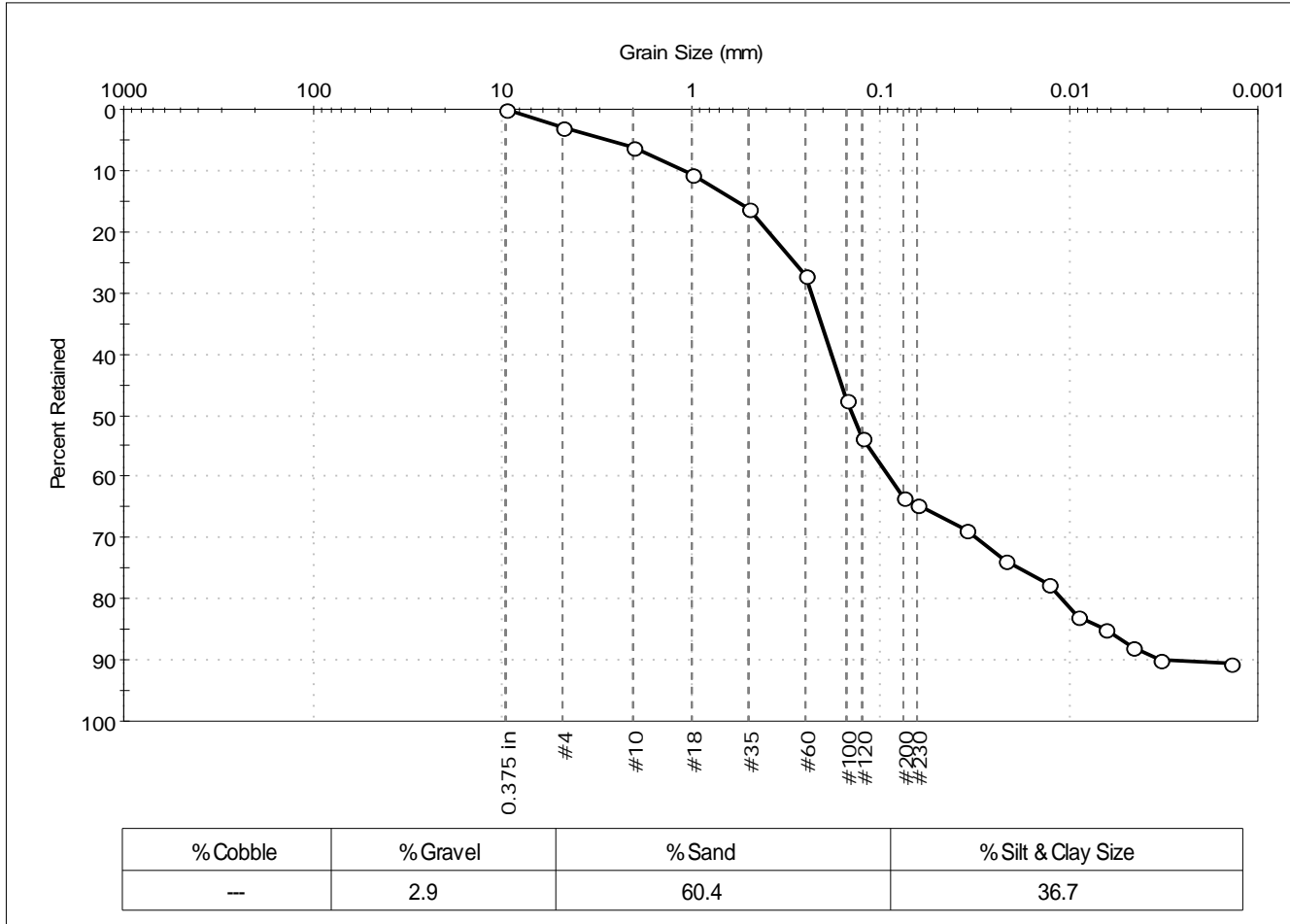
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 146-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0047	Test Date: 10/20/14	Depth: ---	Test Id: 309495
Test Comment: ---			
Sample Description: Wet, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	6		
#18	1.00	11		
#35	0.50	16		
#60	0.25	27		
#100	0.15	48		
#120	0.12	54		
#200	0.075	63		
#230	0.063	65		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0349	69		
---	0.0219	74		
---	0.0128	78		
---	0.0091	83		
---	0.0064	85		
---	0.0046	88		
---	0.0033	90		
---	0.0014	91		

<u>Coefficients</u>	
D ₈₅ = 0.5829 mm	D ₃₀ = 0.0307 mm
D ₆₀ = 0.1811 mm	D ₁₅ = 0.0063 mm
D ₅₀ = 0.1393 mm	D ₁₀ = 0.0028 mm
C _u = 64.679	C _c = 1.859

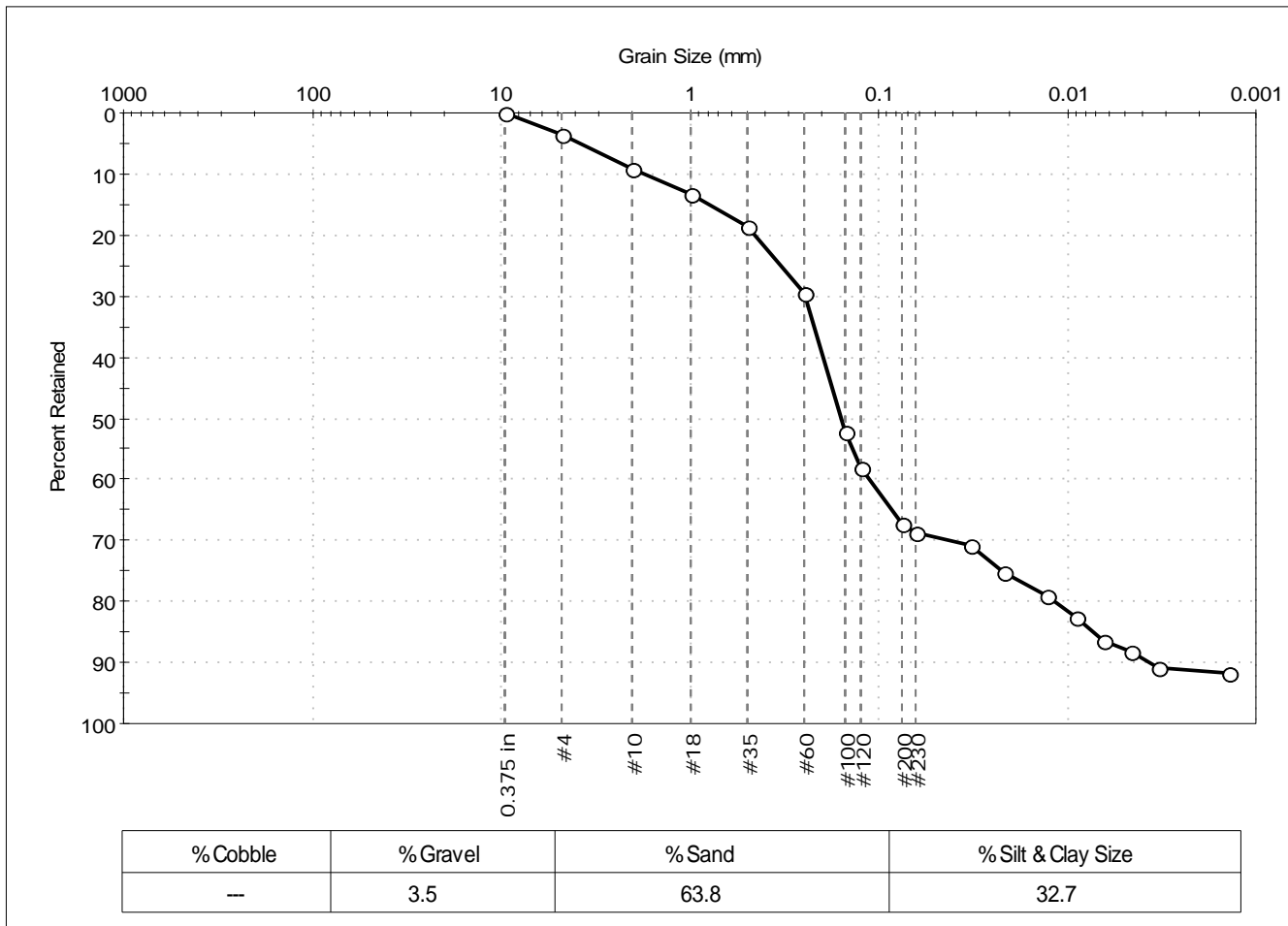
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 146-14LTM	Sample Type: bag
Sample ID: NBH14-0048	Test Date: 10/21/14
Depth: ---	Test Id: 309496
Test Comment: ---	Tested By: jbr
Sample Description: Wet, very dark gray silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	4		
#10	2.00	9		
#18	1.00	13		
#35	0.50	18		
#60	0.25	30		
#100	0.15	52		
#120	0.12	58		
#200	0.075	67		
#230	0.063	69		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0329	71		
---	0.0216	75		
---	0.0127	79		
---	0.0091	83		
---	0.0064	86		
---	0.0046	88		
---	0.0033	91		
---	0.0014	92		

<u>Coefficients</u>	
D ₈₅ = 0.7890 mm	D ₃₀ = 0.0414 mm
D ₆₀ = 0.1976 mm	D ₁₅ = 0.0073 mm
D ₅₀ = 0.1575 mm	D ₁₀ = 0.0036 mm
C _u = 54.889	C _c = 2.409

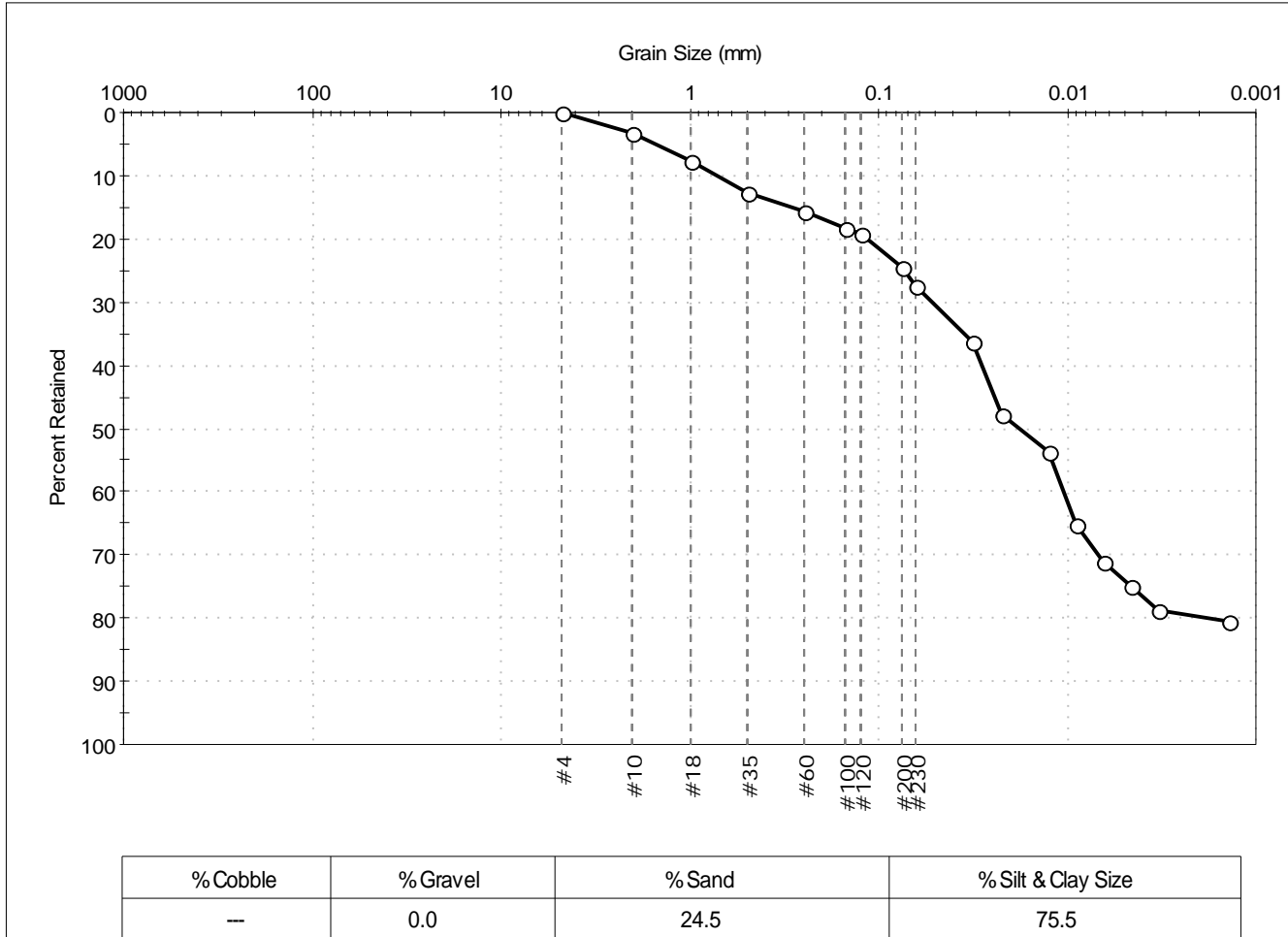
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Gravel and Sand (A-2-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	140-14LTM	Sample Type:	bag
Sample ID:	NBH14-0049	Test Date:	10/23/14
Depth:	---	Test Id:	309497
Test Comment:	---		
Sample Description:	Wet, very dark gray silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	3		
#18	1.00	8		
#35	0.50	13		
#60	0.25	16		
#100	0.15	18		
#120	0.12	19		
#200	0.075	25		
#230	0.063	27		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0315	36		
---	0.0220	48		
---	0.0127	54		
---	0.0091	65		
---	0.0065	71		
---	0.0046	75		
---	0.0033	79		
---	0.0014	81		

<u>Coefficients</u>	
D ₈₅ = 0.2993 mm	D ₃₀ = 0.0069 mm
D ₆₀ = 0.0280 mm	D ₁₅ = N/A
D ₅₀ = 0.0179 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

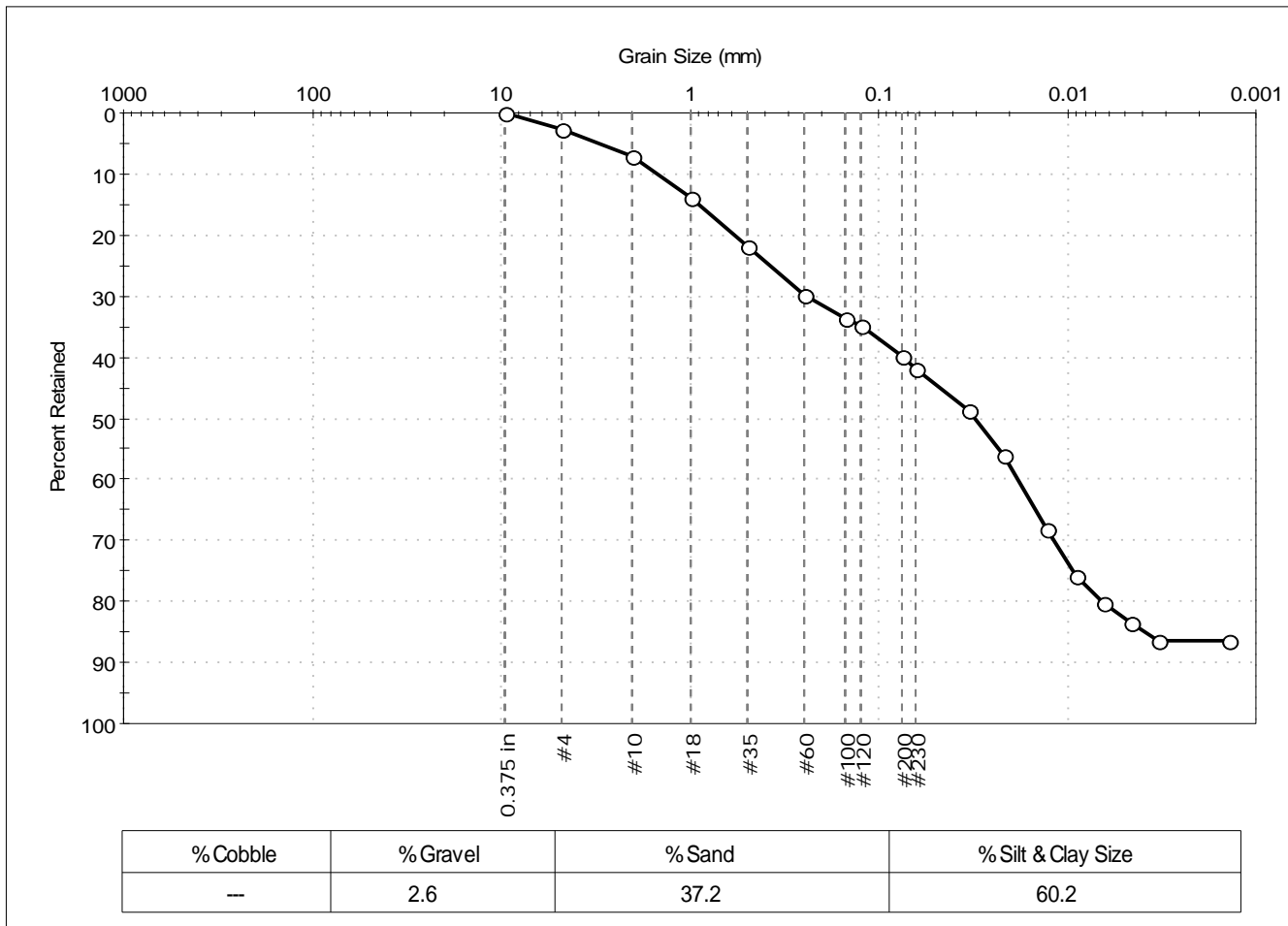
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 140-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0050
 Test Date: 10/14/14
 Checked By: jdt
 Depth: ---
 Test Id: 309498
 Test Comment: ---
 Sample Description: Wet, very dark gray sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	7		
#18	1.00	14		
#35	0.50	22		
#60	0.25	30		
#100	0.15	34		
#120	0.12	35		
#200	0.075	40		
#230	0.063	42		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	49		
---	0.0218	56		
---	0.0128	68		
---	0.0091	76		
---	0.0065	80		
---	0.0046	83		
---	0.0033	86		
---	0.0014	86		

Coefficients

D ₈₅ = 0.9074 mm	D ₃₀ = 0.0118 mm
D ₆₀ = 0.0735 mm	D ₁₅ = 0.0038 mm
D ₅₀ = 0.0310 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

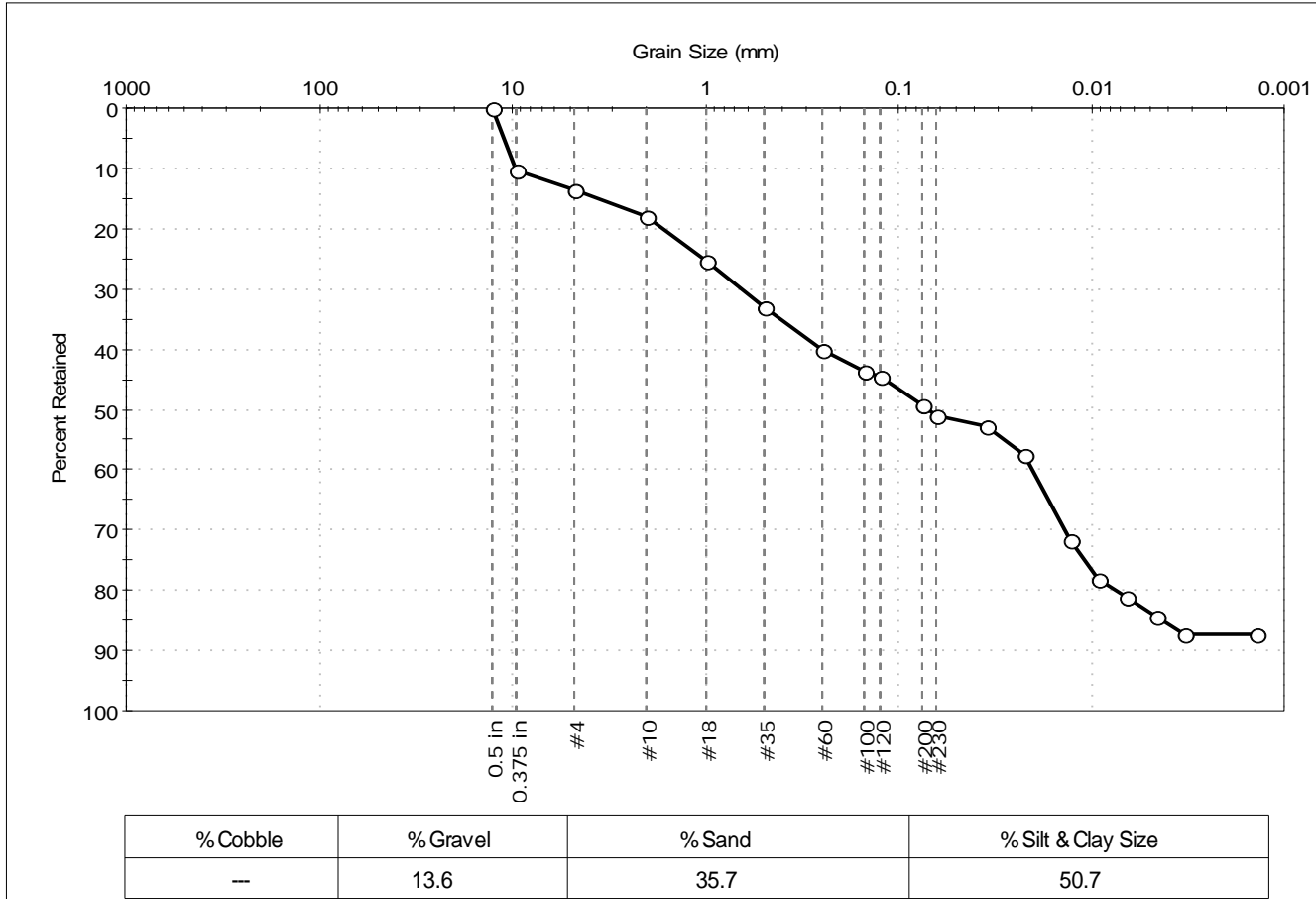
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 140-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0050DUP	Test Date: 10/14/14	Checked By: jdt	
Depth: ---	Test Id: 309499		
Test Comment: ---			
Sample Description: Wet, very dark gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	10		
#4	4.75	14		
#10	2.00	18		
#18	1.00	26		
#35	0.50	33		
#60	0.25	40		
#100	0.15	44		
#120	0.12	45		
#200	0.075	49		
#230	0.063	51		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0350	53		
---	0.0220	58		
---	0.0129	72		
---	0.0092	78		
---	0.0065	81		
---	0.0047	84		
---	0.0033	87		
---	0.0014	87		

Coefficients

D ₈₅ = 3.6533 mm	D ₃₀ = 0.0138 mm
D ₆₀ = 0.2496 mm	D ₁₅ = 0.0043 mm
D ₅₀ = 0.0699 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

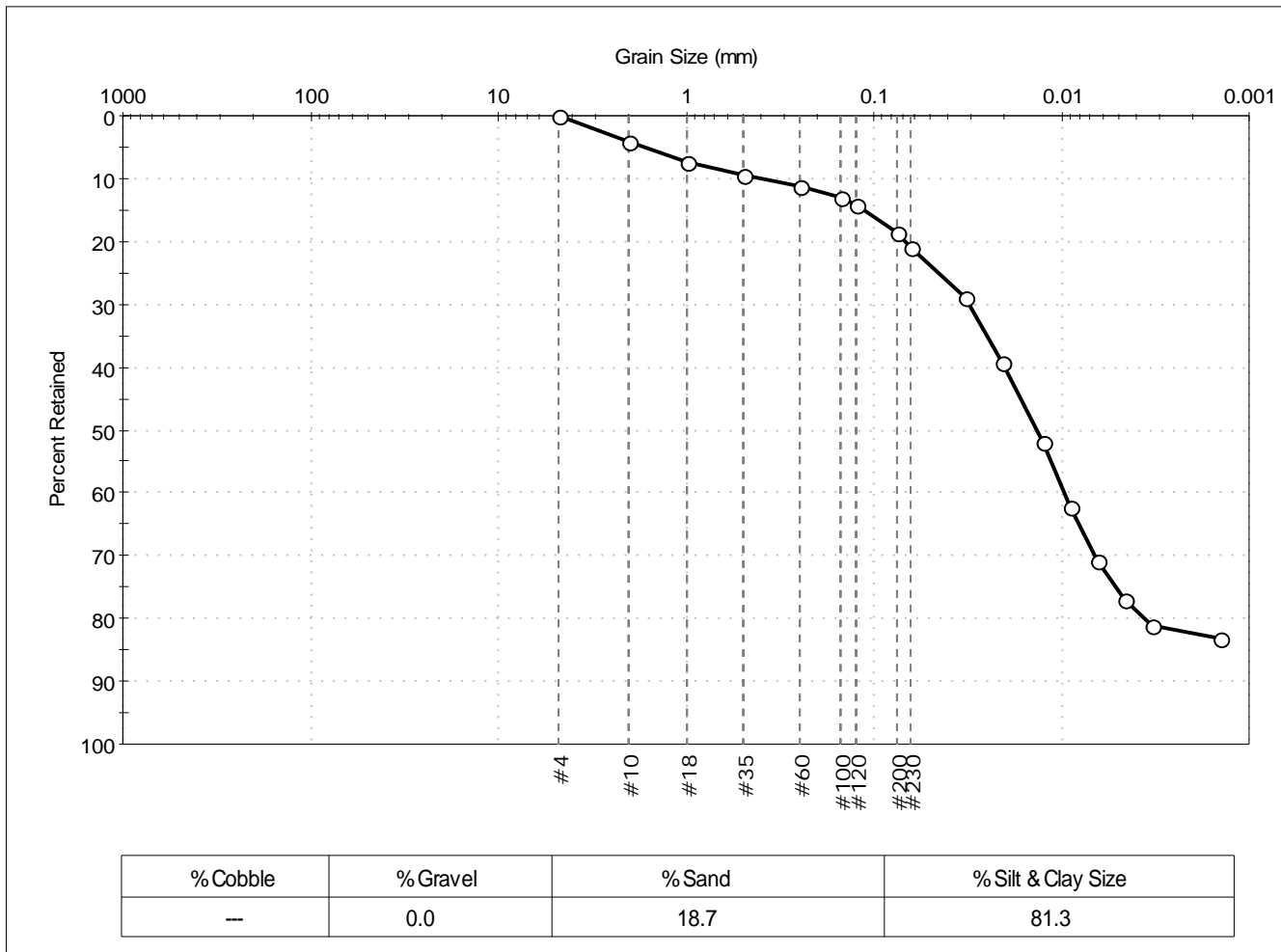
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 140-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0051	Test Date: 10/14/14	Test Id: 309500	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	4		
#18	1.00	7		
#35	0.50	9		
#60	0.25	11		
#100	0.15	13		
#120	0.12	14		
#200	0.075	19		
#230	0.063	21		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	29		
---	0.0206	39		
---	0.0124	52		
---	0.0090	62		
---	0.0065	71		
---	0.0046	77		
---	0.0033	81		
---	0.0014	83		

<u>Coefficients</u>	
D ₈₅ = 0.1141 mm	D ₃₀ = 0.0066 mm
D ₆₀ = 0.0200 mm	D ₁₅ = N/A
D ₅₀ = 0.0134 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

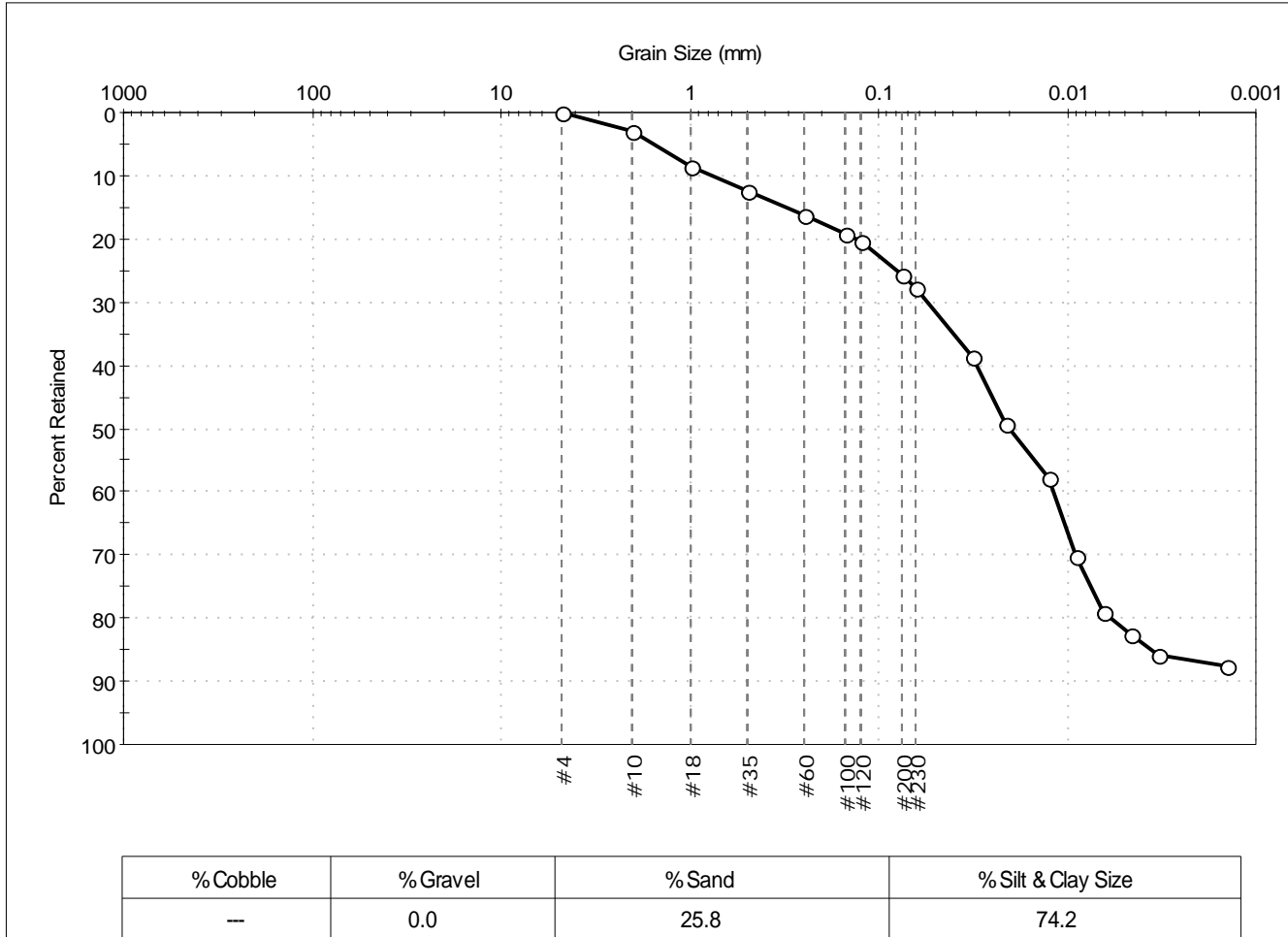
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 140-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0052	Test Date: 10/14/14	Depth: ---	Test Id: 309501
Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	3		
#18	1.00	8		
#35	0.50	12		
#60	0.25	16		
#100	0.15	19		
#120	0.12	20		
#200	0.075	26		
#230	0.063	28		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0321	39		
---	0.0211	49		
---	0.0125	58		
---	0.0091	70		
---	0.0065	79		
---	0.0046	82		
---	0.0033	86		
---	0.0014	88		

<u>Coefficients</u>	
D ₈₅ = 0.3091 mm	D ₃₀ = 0.0091 mm
D ₆₀ = 0.0303 mm	D ₁₅ = 0.0036 mm
D ₅₀ = 0.0200 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

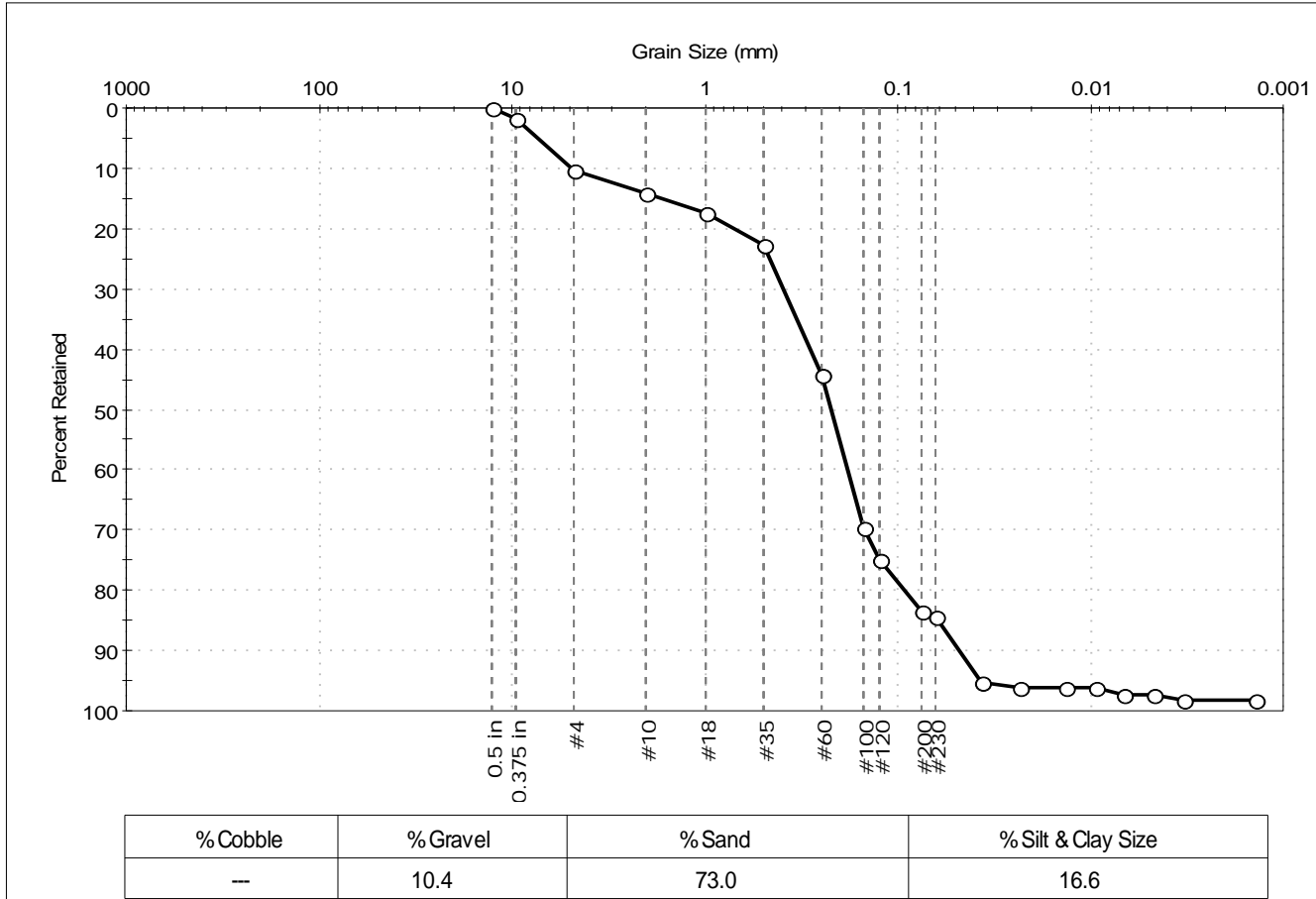
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 202-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0053	Test Date: 10/24/14	Depth: ---	Test Id: 309502
Test Comment: ---			
Sample Description: Wet, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	2		
#4	4.75	10		
#10	2.00	14		
#18	1.00	17		
#35	0.50	23		
#60	0.25	44		
#100	0.15	70		
#120	0.12	75		
#200	0.075	83		
#230	0.063	84		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0365	95		
---	0.0232	96		
---	0.0134	96		
---	0.0094	96		
---	0.0067	97		
---	0.0047	97		
---	0.0033	98		
---	0.0014	98		

Coefficients

D ₈₅ = 1.6475 mm	D ₃₀ = 0.1476 mm
D ₆₀ = 0.2870 mm	D ₁₅ = 0.0613 mm
D ₅₀ = 0.2227 mm	D ₁₀ = 0.0478 mm
C _u = 6.004	C _c = 1.588

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

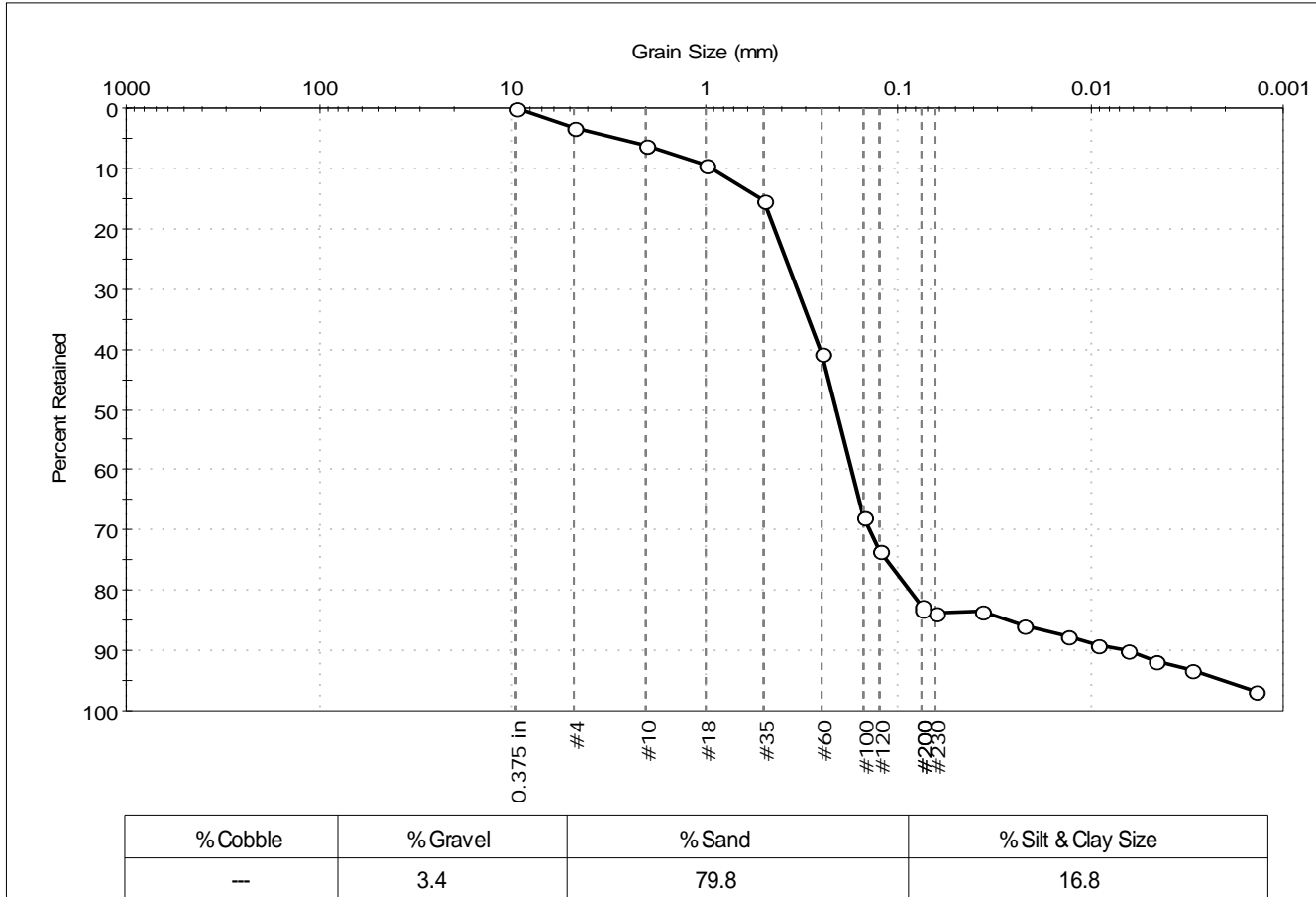
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	202-14LTM	Sample Type:	bag
Sample ID:	NBH14-0054	Test Date:	10/20/14
Depth:	---	Test Id:	309503
Test Comment:	---		
Sample Description:	wet, very dark gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	6		
#18	1.00	10		
#35	0.50	15		
#60	0.25	41		
#100	0.15	68		
#120	0.12	74		
#200	0.075	83		
#200	0.075	83		
#230	0.063	84		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0364	83		
---	0.0222	86		
---	0.0130	88		
---	0.0093	89		
---	0.0065	90		
---	0.0046	92		
---	0.0030	93		
---	0.0014	97		

Coefficients

D ₈₅ = 0.5178 mm	D ₃₀ = 0.1400 mm
D ₆₀ = 0.2540 mm	D ₁₅ = 0.0264 mm
D ₅₀ = 0.2096 mm	D ₁₀ = 0.0066 mm
C _u = 38.485	C _c = 11.692

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

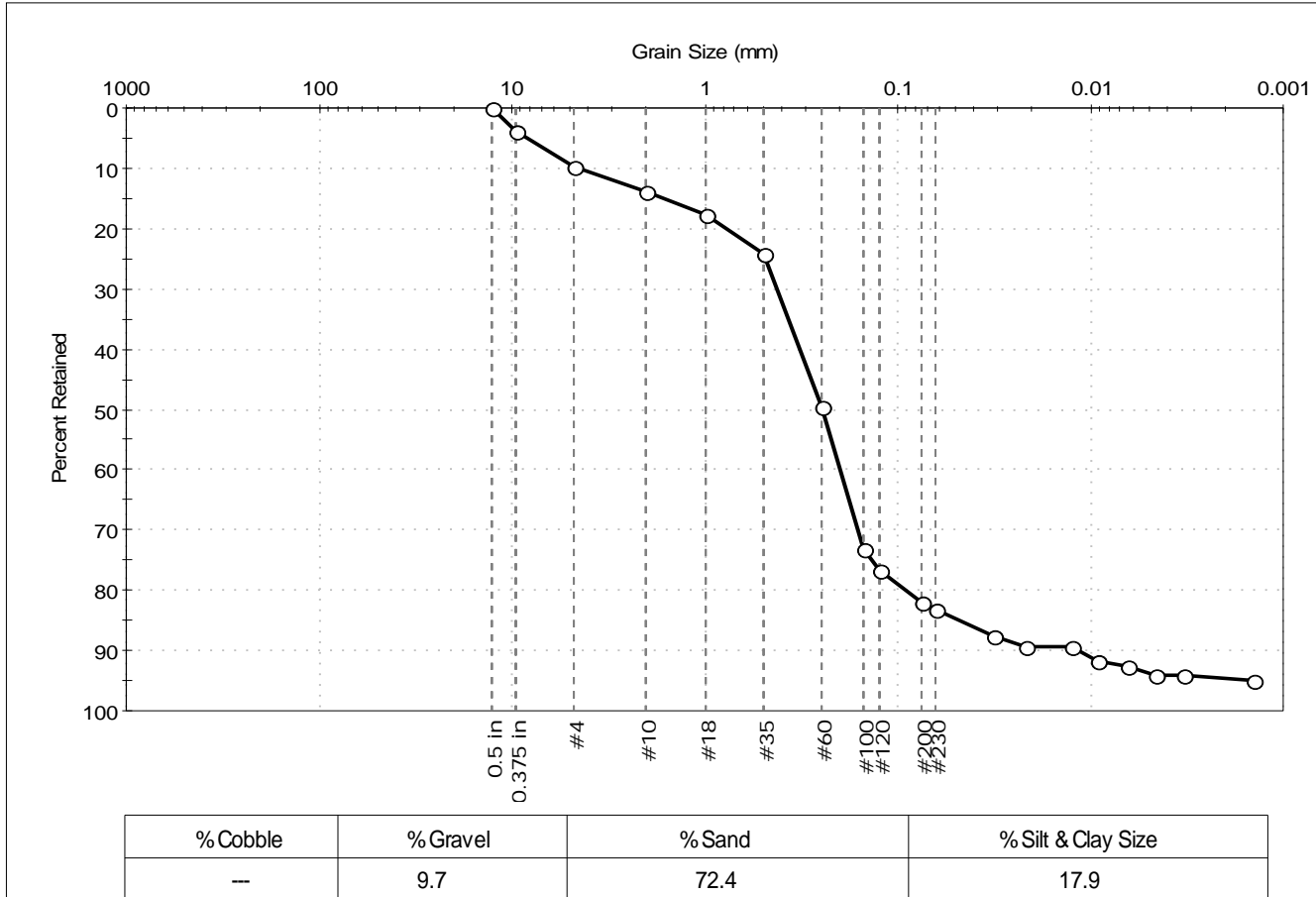
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	202-14LTM	Sample Type:	bag
Sample ID:	NBH14-0055	Test Date:	10/21/14
Depth:	---	Test Id:	309504
Test Comment:	---		
Sample Description:	Wet, very dark gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	4		
#4	4.75	10		
#10	2.00	14		
#18	1.00	18		
#35	0.50	24		
#60	0.25	50		
#100	0.15	73		
#120	0.12	77		
#200	0.075	82		
#230	0.063	83		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	88		
---	0.0217	89		
---	0.0127	89		
---	0.0092	92		
---	0.0065	93		
---	0.0046	94		
---	0.0033	94		
---	0.0014	95		

<u>Coefficients</u>	
D ₈₅ = 1.6662 mm	D ₃₀ = 0.1606 mm
D ₆₀ = 0.3243 mm	D ₁₅ = 0.0470 mm
D ₅₀ = 0.2476 mm	D ₁₀ = 0.0115 mm
C _u = 28.200	C _c = 6.916

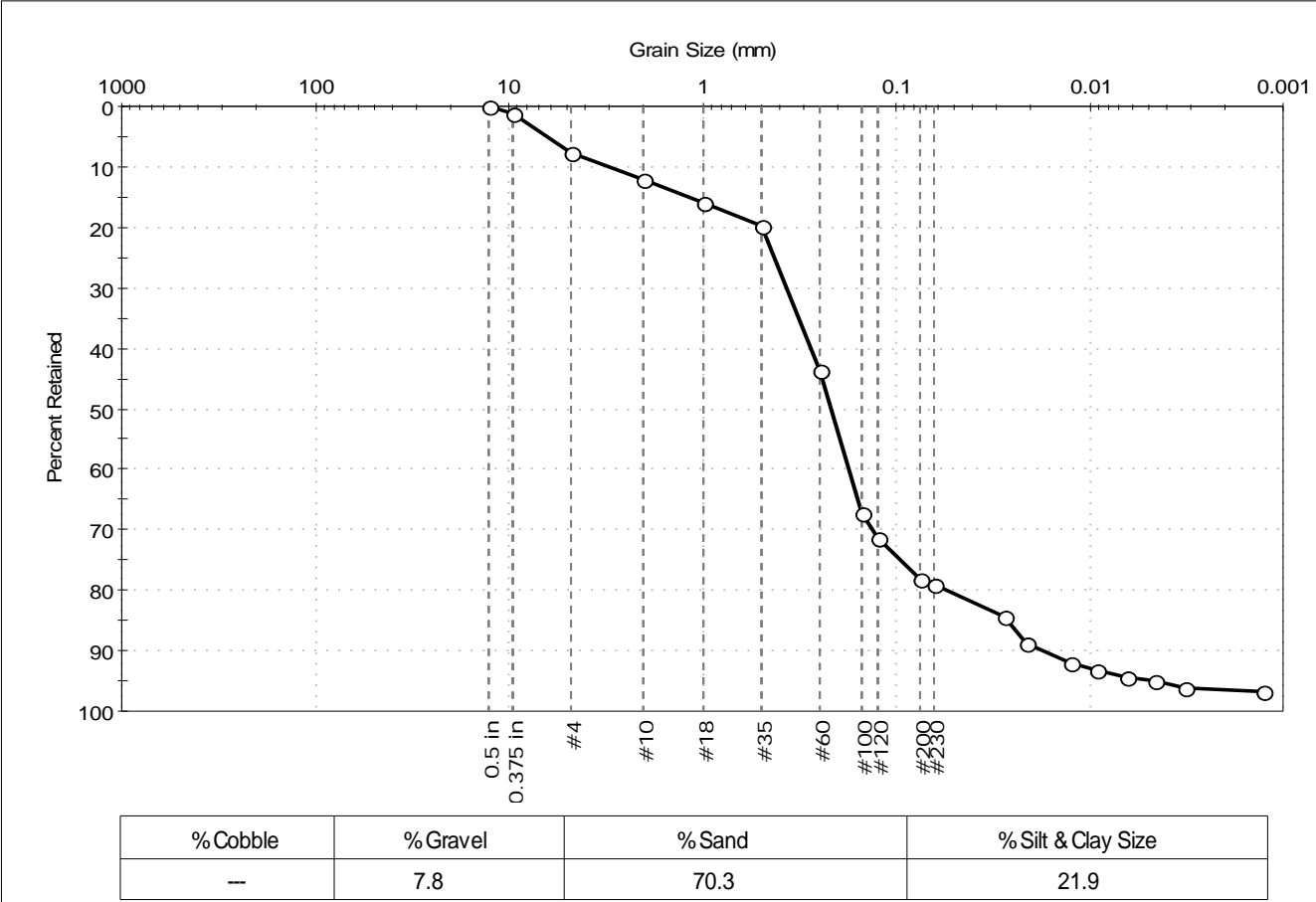
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 202-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0056	Test Date: 10/23/14	Depth: ---	Test Id: 309505
Test Comment: ---	Sample Description: Wet, dark gray silty sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	1		
#4	4.75	8		
#10	2.00	12		
#18	1.00	16		
#35	0.50	20		
#60	0.25	44		
#100	0.15	67		
#120	0.12	71		
#200	0.075	78		
#230	0.063	79		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0279	84		
---	0.0215	89		
---	0.0125	92		
---	0.0092	93		
---	0.0065	94		
---	0.0046	95		
---	0.0032	96		
---	0.0013	97		

Coefficients

D ₈₅ = 1.1624 mm	D ₃₀ = 0.1335 mm
D ₆₀ = 0.2791 mm	D ₁₅ = 0.0267 mm
D ₅₀ = 0.2186 mm	D ₁₀ = 0.0176 mm
C _u = 15.858	C _c = 3.628

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

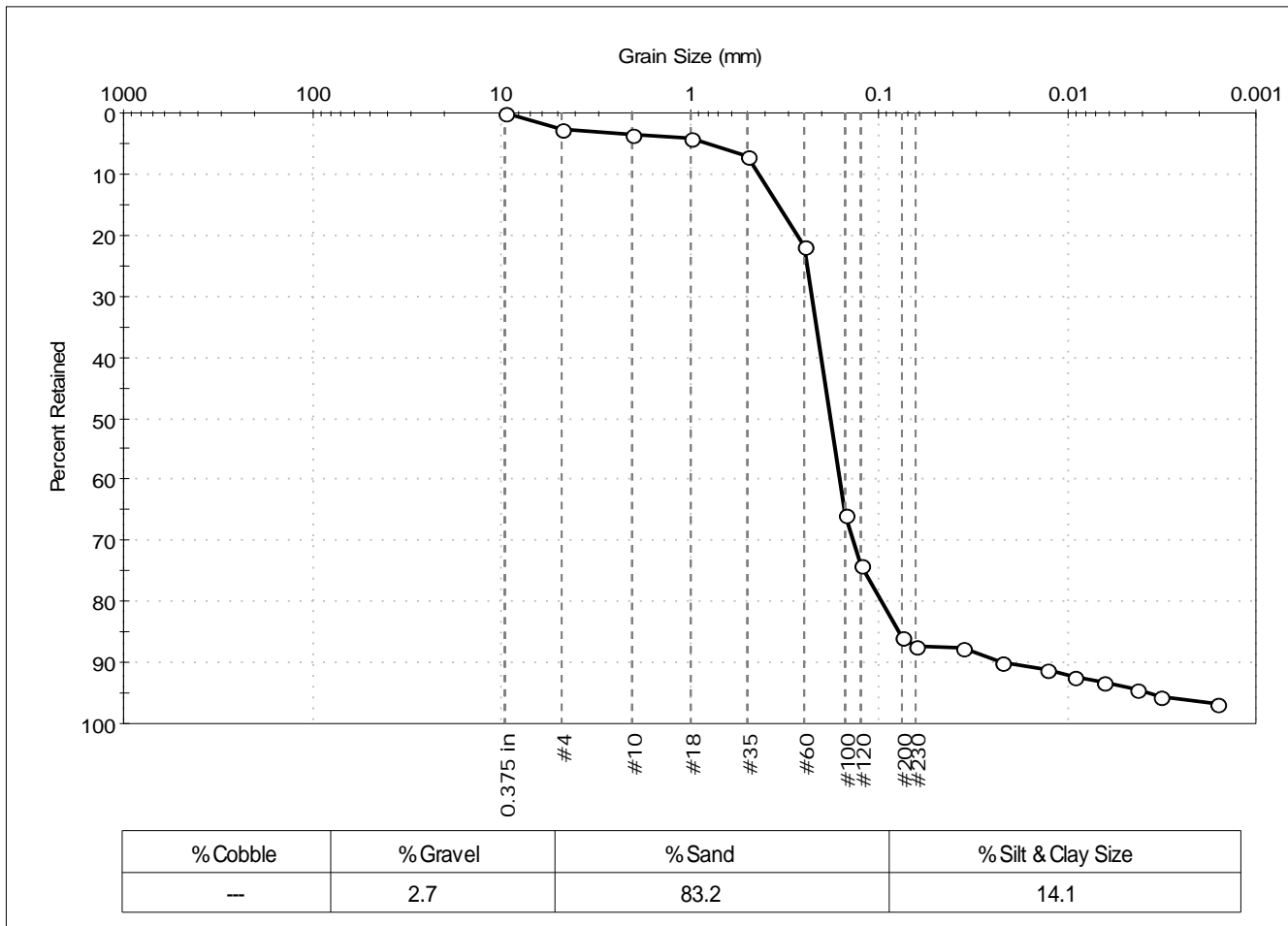
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	151-14LTM	Sample Type:	bag
Sample ID:	NBH14-0057	Test Date:	11/03/14
Depth:	---	Test Id:	310457
Test Comment:	---		
Sample Description:	Wet, dark olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	3		
#18	1.00	4		
#35	0.50	7		
#60	0.25	22		
#100	0.15	66		
#120	0.12	74		
#200	0.075	86		
#230	0.063	87		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0362	88		
---	0.0220	90		
---	0.0130	91		
---	0.0092	92		
---	0.0065	93		
---	0.0043	94		
---	0.0032	96		
---	0.0016	97		

<u>Coefficients</u>	
D ₈₅ = 0.3439 mm	D ₃₀ = 0.1369 mm
D ₆₀ = 0.2026 mm	D ₁₅ = 0.0781 mm
D ₅₀ = 0.1804 mm	D ₁₀ = 0.0216 mm
C _u = 9.380	C _c = 4.283

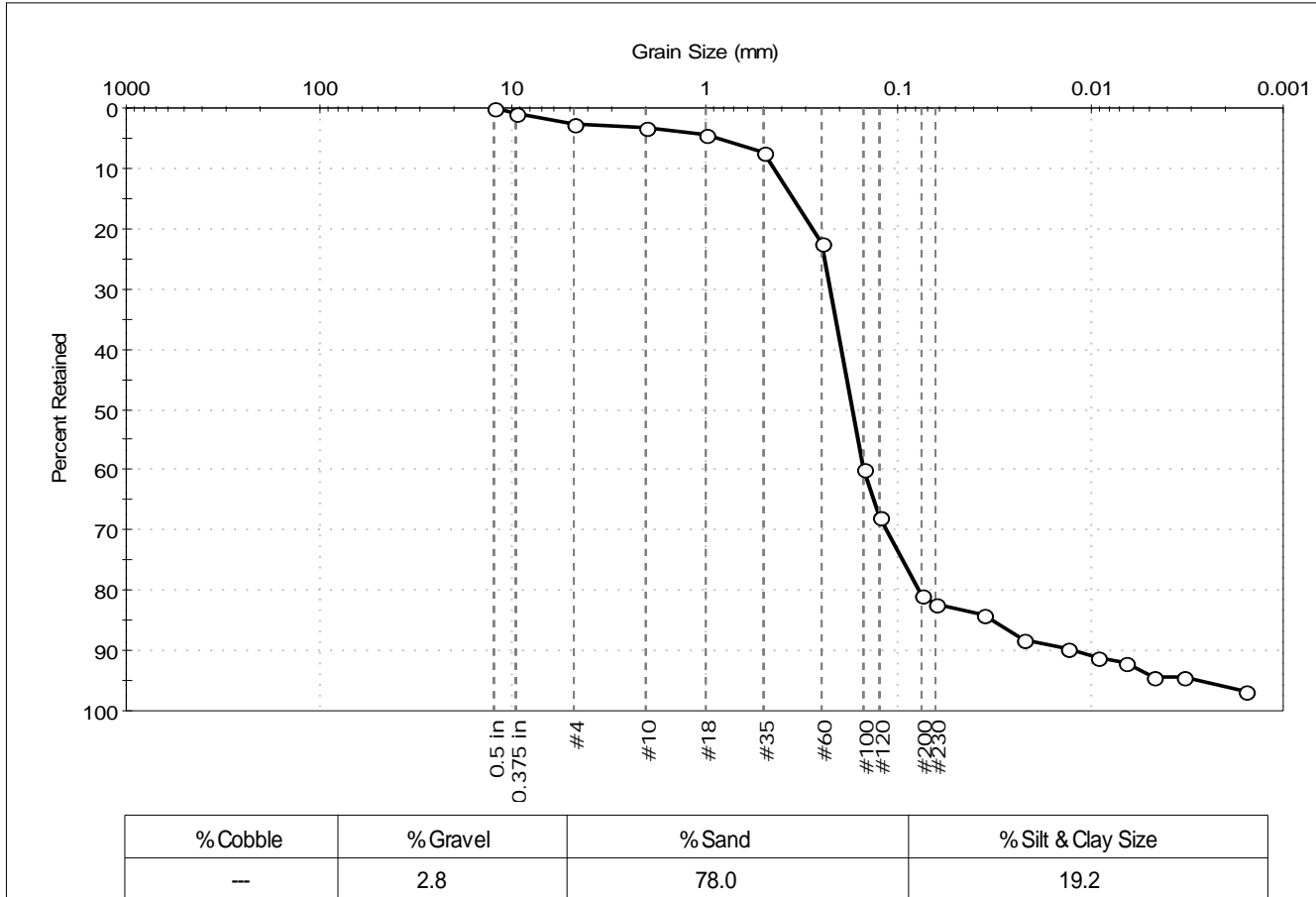
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 151-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0058	Test Date: 11/04/14	Test Id: 310451	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	3		
#10	2.00	3		
#18	1.00	4		
#35	0.50	7		
#60	0.25	22		
#100	0.15	60		
#120	0.12	68		
#200	0.075	81		
#230	0.063	82		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0360	84		
---	0.0222	88		
---	0.0130	90		
---	0.0092	91		
---	0.0065	92		
---	0.0047	94		
---	0.0033	94		
---	0.0016	97		

Coefficients

D ₈₅ = 0.3506 mm	D ₃₀ = 0.1150 mm
D ₆₀ = 0.1964 mm	D ₁₅ = 0.0325 mm
D ₅₀ = 0.1714 mm	D ₁₀ = 0.0122 mm
C _u = 16.098	C _c = 5.519

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

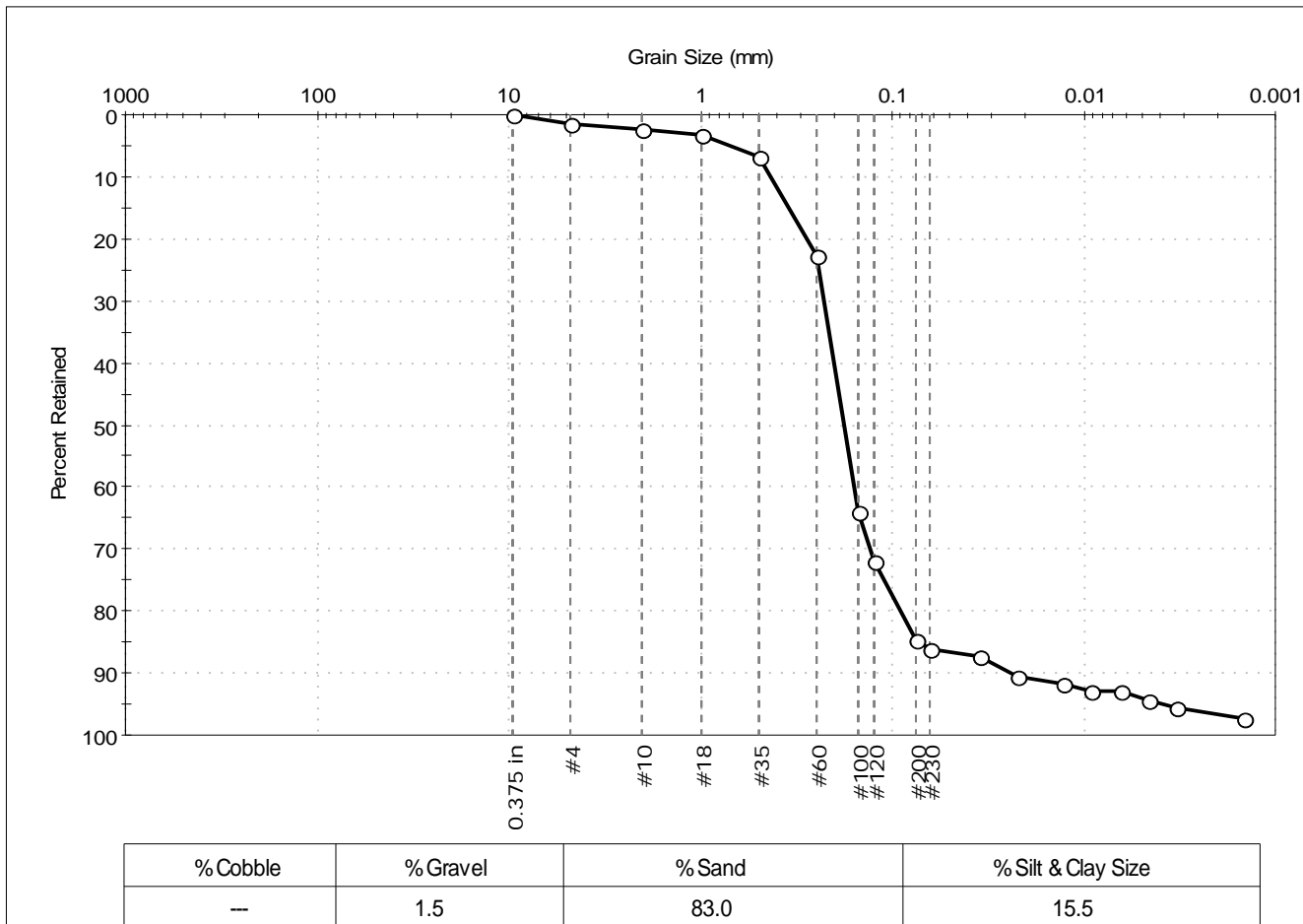
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 151-14LTM	Sample Type: bag
Sample ID: NBH14-0059	Test Date: 11/04/14
Depth: ---	Test Id: 310452
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark olive silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	2		
#18	1.00	3		
#35	0.50	7		
#60	0.25	23		
#100	0.15	64		
#120	0.12	72		
#200	0.075	85		
#230	0.063	86		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0348	87		
---	0.0223	91		
---	0.0130	92		
---	0.0092	93		
---	0.0065	93		
---	0.0046	94		
---	0.0033	96		
---	0.0015	97		

<u>Coefficients</u>	
D ₈₅ = 0.3494 mm	D ₃₀ = 0.1308 mm
D ₆₀ = 0.2017 mm	D ₁₅ = 0.0714 mm
D ₅₀ = 0.1782 mm	D ₁₀ = 0.0241 mm
C _u = 8.369	C _c = 3.520

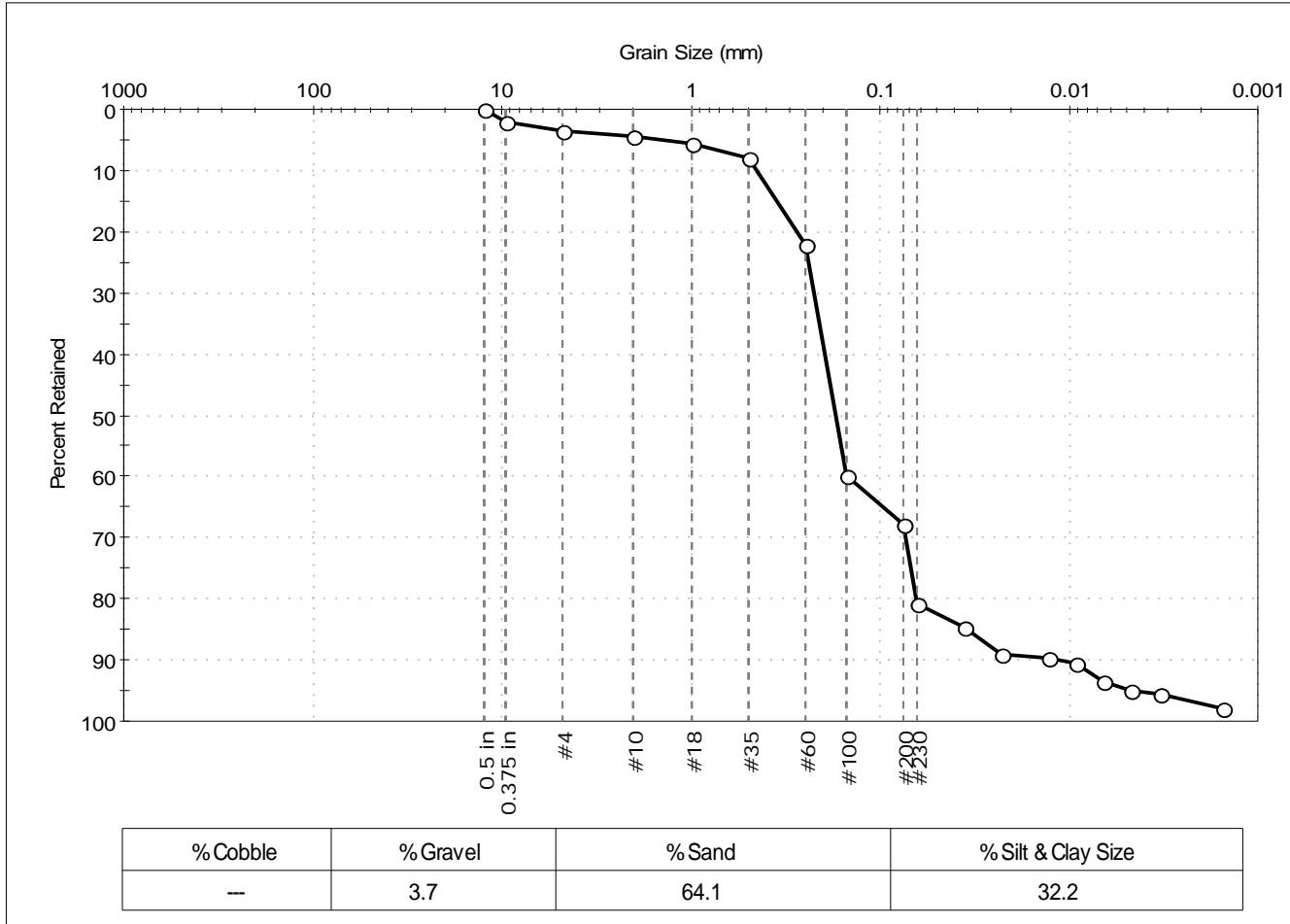
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	151-14LTM	Sample Type:	bag
Sample ID:	NBH14-0060	Test Date:	11/03/14
Depth:	---	Test Id:	310453
Test Comment:	---		
Sample Description:	Wet, dark olive silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	2		
#4	4.75	4		
#10	2.00	4		
#18	1.00	6		
#35	0.50	8		
#60	0.25	22		
#100	0.15	60		
#200	0.075	68		
#230	0.063	81		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0359	85		
---	0.0226	89		
---	0.0130	90		
---	0.0092	90		
---	0.0066	93		
---	0.0047	95		
---	0.0033	96		
---	0.0016	98		

<u>Coefficients</u>	
D ₈₅ = 0.3550 mm	D ₃₀ = 0.0729 mm
D ₆₀ = 0.1962 mm	D ₁₅ = 0.0345 mm
D ₅₀ = 0.1713 mm	D ₁₀ = 0.0115 mm
C _u = 17.061	C _c = 2.355

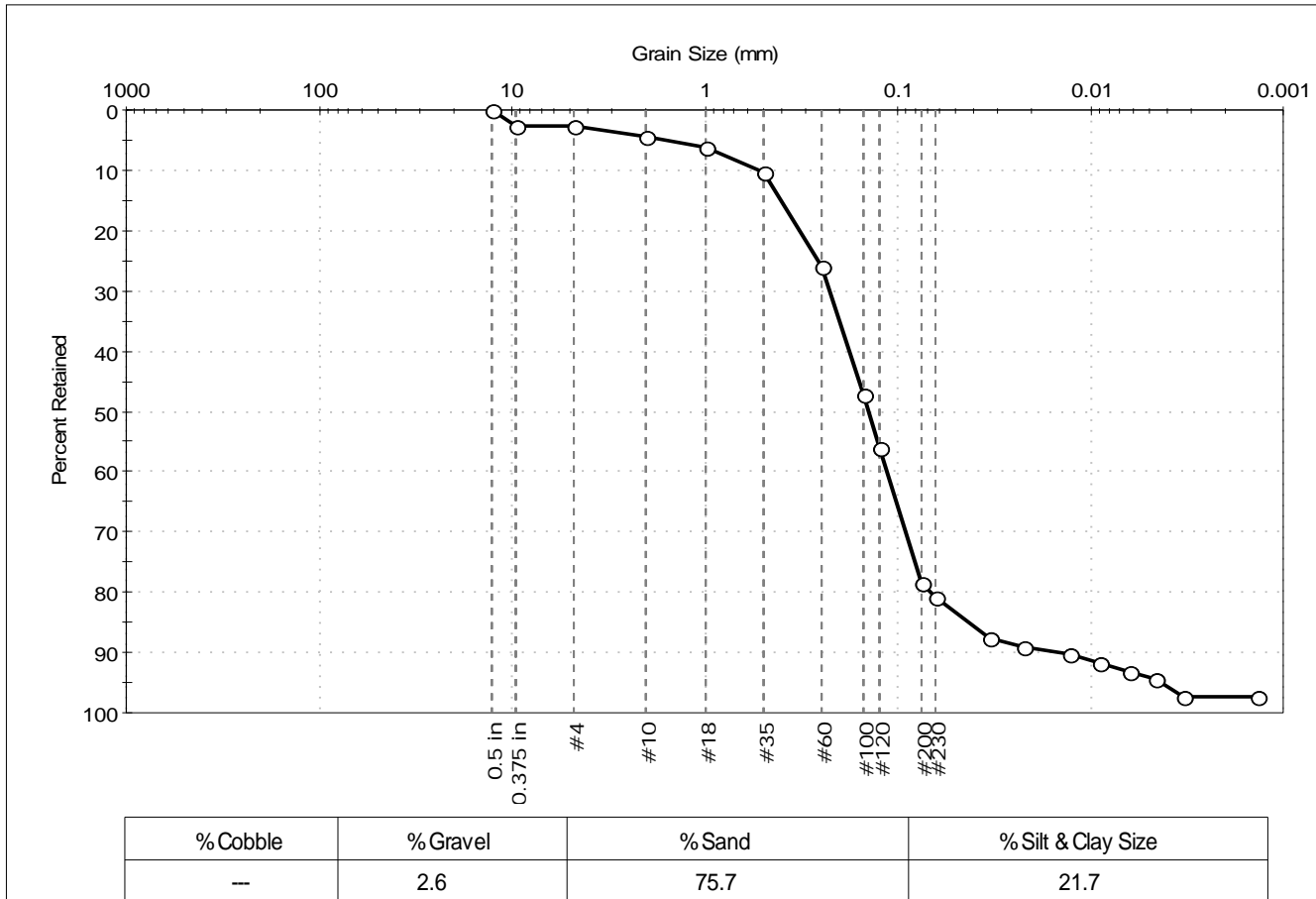
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Gravel and Sand (A-2-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 147-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0061
 Test Date: 10/20/14
 Checked By: jdt
 Depth: ---
 Test Id: 309535
 Test Comment: ---
 Sample Description: Moist, greenish gray silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	3		
#4	4.75	3		
#10	2.00	4		
#18	1.00	6		
#35	0.50	10		
#60	0.25	26		
#100	0.15	47		
#120	0.12	56		
#200	0.075	78		
#230	0.063	81		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0330	88		
---	0.0224	89		
---	0.0130	90		
---	0.0091	92		
---	0.0062	93		
---	0.0047	94		
---	0.0033	97		
---	0.0014	97		

Coefficients

D ₈₅ = 0.4066 mm	D ₃₀ = 0.0908 mm
D ₆₀ = 0.1786 mm	D ₁₅ = 0.0423 mm
D ₅₀ = 0.1417 mm	D ₁₀ = 0.0149 mm
C _u = 11.987	C _c = 3.098

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

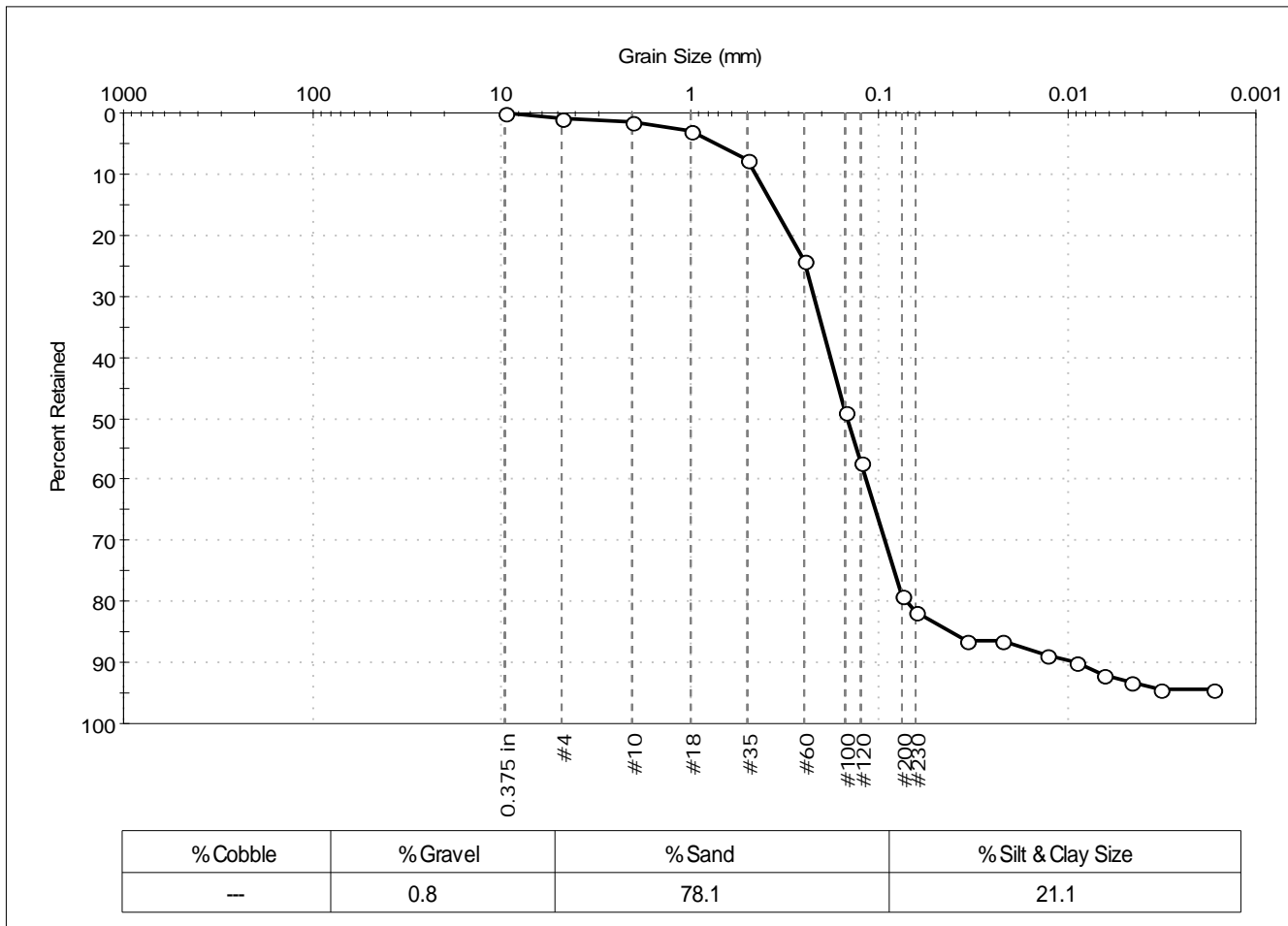
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 147-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0062
 Test Date: 10/08/14
 Checked By: jdt
 Depth: ---
 Test Id: 309536
 Test Comment: ---
 Sample Description: Wet, dark greenish gray silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	3		
#35	0.50	8		
#60	0.25	24		
#100	0.15	49		
#120	0.12	57		
#200	0.075	79		
#230	0.063	82		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	86		
---	0.0222	86		
---	0.0127	89		
---	0.0091	90		
---	0.0065	92		
---	0.0046	93		
---	0.0032	94		
---	0.0017	94		

Coefficients

D ₈₅ = 0.3674 mm	D ₃₀ = 0.0926 mm
D ₆₀ = 0.1806 mm	D ₁₅ = 0.0408 mm
D ₅₀ = 0.1468 mm	D ₁₀ = 0.0089 mm
C _u = 20.292	C _c = 5.335

Classification

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

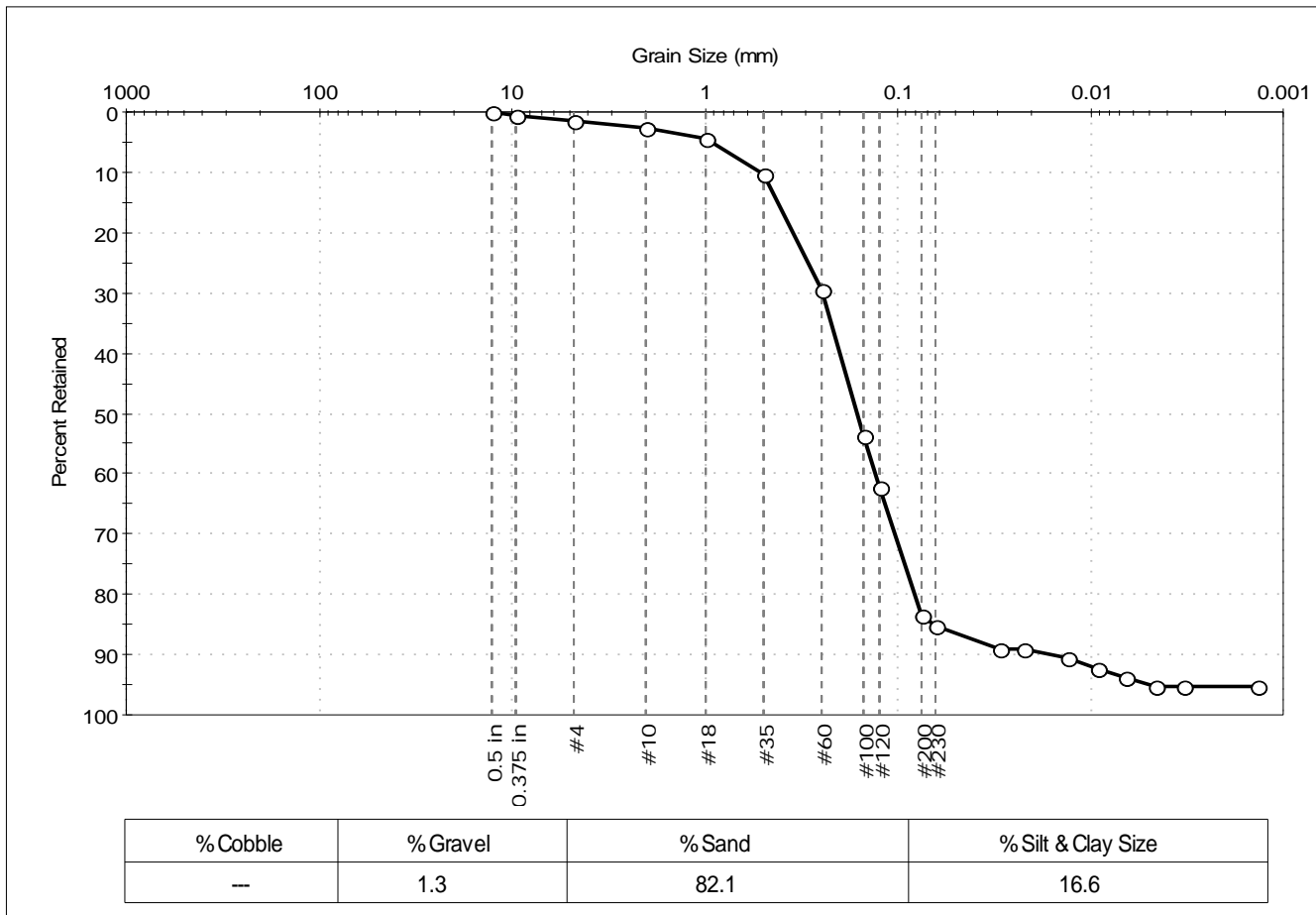
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 147-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0063	Test Date: 10/08/14	Test Id: 309537	
Depth: ---	Test Comment: ---	Sample Description: Moist, greenish gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	1		
#4	4.75	1		
#10	2.00	3		
#18	1.00	4		
#35	0.50	10		
#60	0.25	29		
#100	0.15	54		
#120	0.12	62		
#200	0.075	83		
#230	0.063	85		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0298	89		
---	0.0223	89		
---	0.0131	91		
---	0.0092	92		
---	0.0066	94		
---	0.0046	95		
---	0.0033	95		
---	0.0014	95		

Coefficients

D ₈₅ = 0.4213 mm	D ₃₀ = 0.1038 mm
D ₆₀ = 0.2002 mm	D ₁₅ = 0.0645 mm
D ₅₀ = 0.1624 mm	D ₁₀ = 0.0165 mm
C _u = 12.133	C _c = 3.262

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

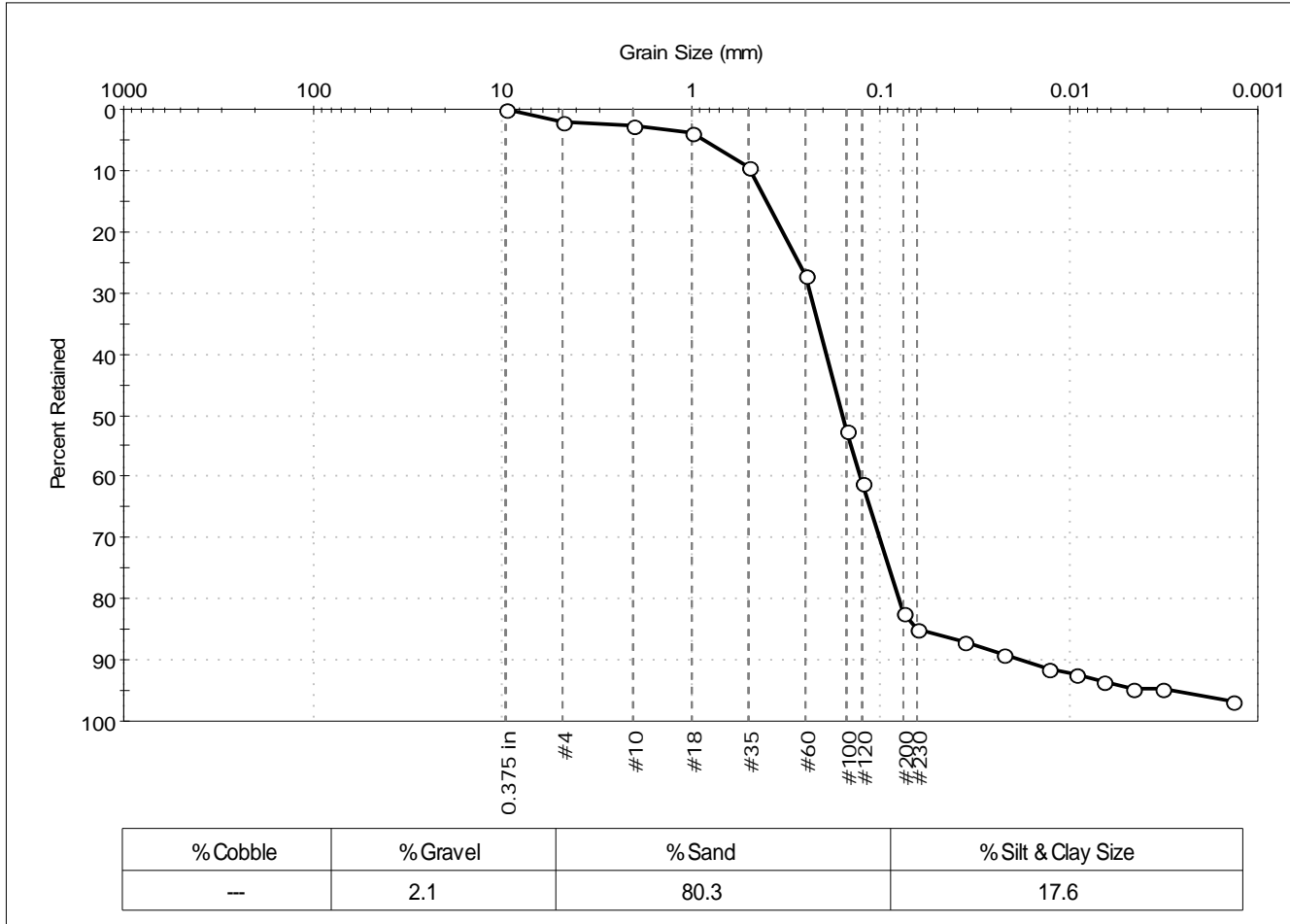
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	147-14LTM	Sample Type:	bag
Sample ID:	NBH14-0064	Test Date:	10/08/14
Depth:	---	Test Id:	309538
Test Comment:	---		
Sample Description:	Moist, greenish gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	3		
#18	1.00	4		
#35	0.50	9		
#60	0.25	27		
#100	0.15	53		
#120	0.12	61		
#200	0.075	82		
#230	0.063	85		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0356	87		
---	0.0221	89		
---	0.0128	91		
---	0.0091	92		
---	0.0065	93		
---	0.0046	95		
---	0.0032	95		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 0.4013 mm	D ₃₀ = 0.1008 mm
D ₆₀ = 0.1934 mm	D ₁₅ = 0.0617 mm
D ₅₀ = 0.1581 mm	D ₁₀ = 0.0178 mm
C _u = 10.865	C _c = 2.952

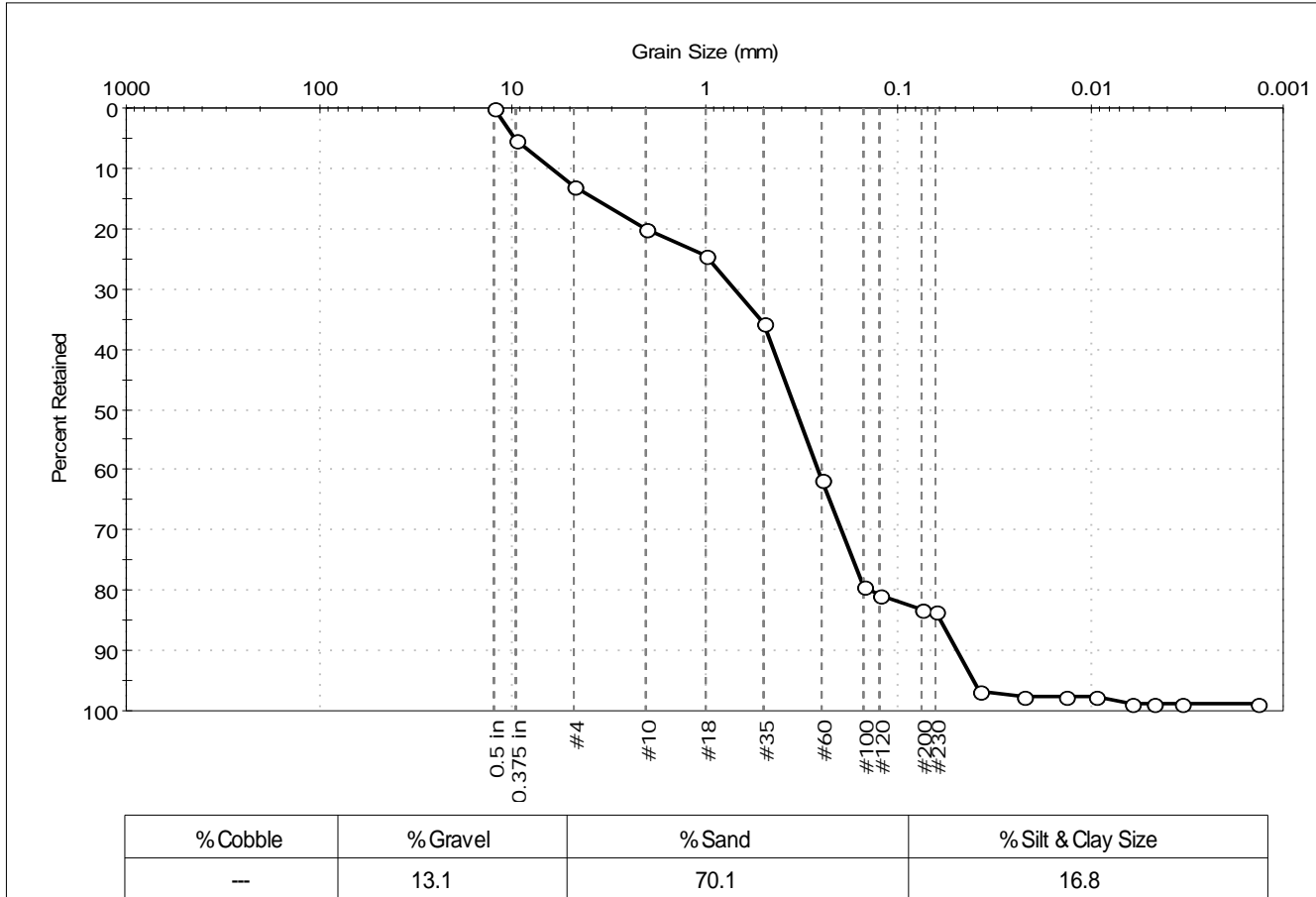
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	135-14LTM	Sample Type:	bag
Sample ID:	NBH14-0065	Test Date:	10/15/14
Depth:	---	Test Id:	309539
Test Comment:	---		
Sample Description:	Moist, olive silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	5		
#4	4.75	13		
#10	2.00	20		
#18	1.00	25		
#35	0.50	36		
#60	0.25	62		
#100	0.15	79		
#120	0.12	81		
#200	0.075	83		
#230	0.063	83		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0375	97		
---	0.0220	98		
---	0.0134	98		
---	0.0093	98		
---	0.0062	99		
---	0.0047	99		
---	0.0033	99		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 3.7381 mm	D ₃₀ = 0.1964 mm
D ₆₀ = 0.4467 mm	D ₁₅ = 0.0593 mm
D ₅₀ = 0.3416 mm	D ₁₀ = 0.0487 mm
C _u = 9.172	C _c = 1.773

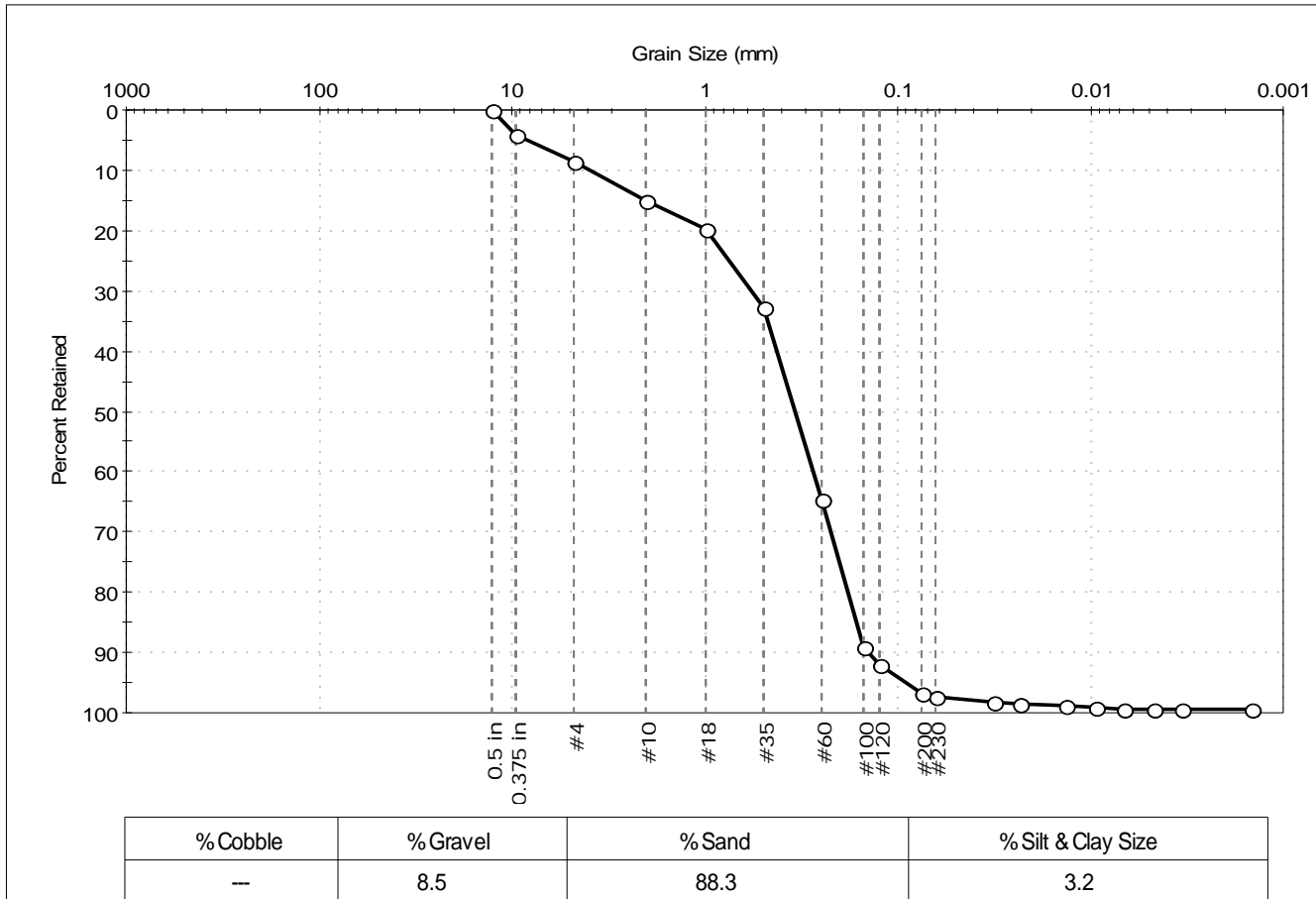
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 135-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0066	Test Date: 11/12/14	Test Id: 309540	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive gray sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	4		
#4	4.75	8		
#10	2.00	15		
#18	1.00	20		
#35	0.50	33		
#60	0.25	65		
#100	0.15	89		
#120	0.12	92		
#200	0.075	96.8		
#230	0.063	97		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0317	98		
---	0.0234	99		
---	0.0133	99		
---	0.0095	99		
---	0.0067	99		
---	0.0047	99		
---	0.0034	99		
---	0.0015	99		

Coefficients

D ₈₅ = 1.9839 mm	D ₃₀ = 0.2238 mm
D ₆₀ = 0.4278 mm	D ₁₅ = 0.1638 mm
D ₅₀ = 0.3441 mm	D ₁₀ = 0.1430 mm
C _u = 2.992	C _c = 0.819

Classification

ASTM	Poorly graded sand (SP)
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

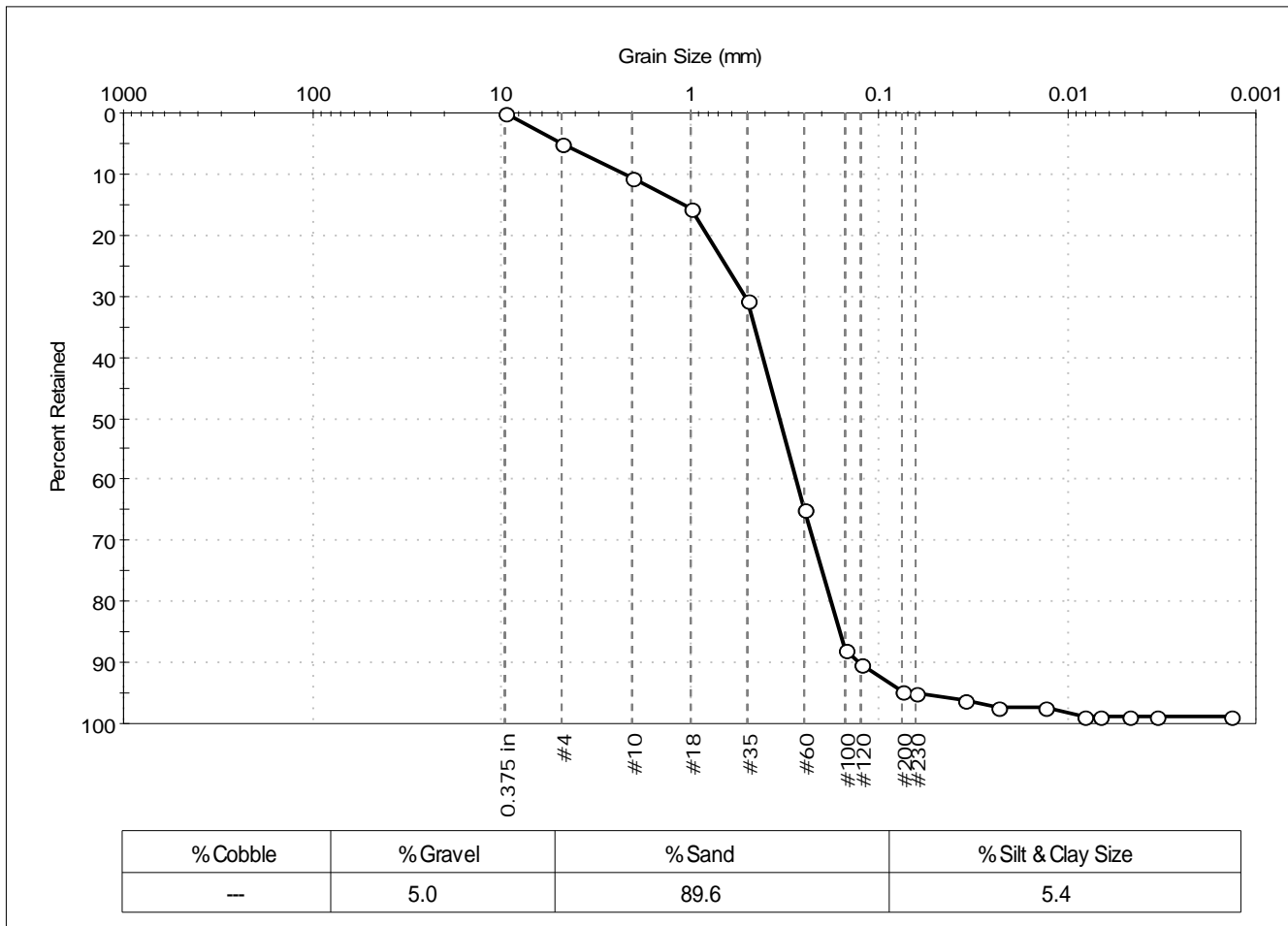
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 135-14LTM	Sample Type: bag
Sample ID: NBH14-0066DUP	Test Date: 10/02/14
Depth: ---	Test Id: 309541
Test Comment: ---	Tested By: jbr
Sample Description: Moist, olive gray sand with silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	5		
#10	2.00	11		
#18	1.00	16		
#35	0.50	31		
#60	0.25	65		
#100	0.15	88		
#120	0.12	90		
#200	0.075	94.6		
#230	0.063	95		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0349	96		
---	0.0231	97		
---	0.0131	97		
---	0.0082	99		
---	0.0067	99		
---	0.0047	99		
---	0.0033	99		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 1.1083 mm	D ₃₀ = 0.2234 mm
D ₆₀ = 0.4141 mm	D ₁₅ = 0.1596 mm
D ₅₀ = 0.3384 mm	D ₁₀ = 0.1268 mm
C _u = 3.266	C _c = 0.950

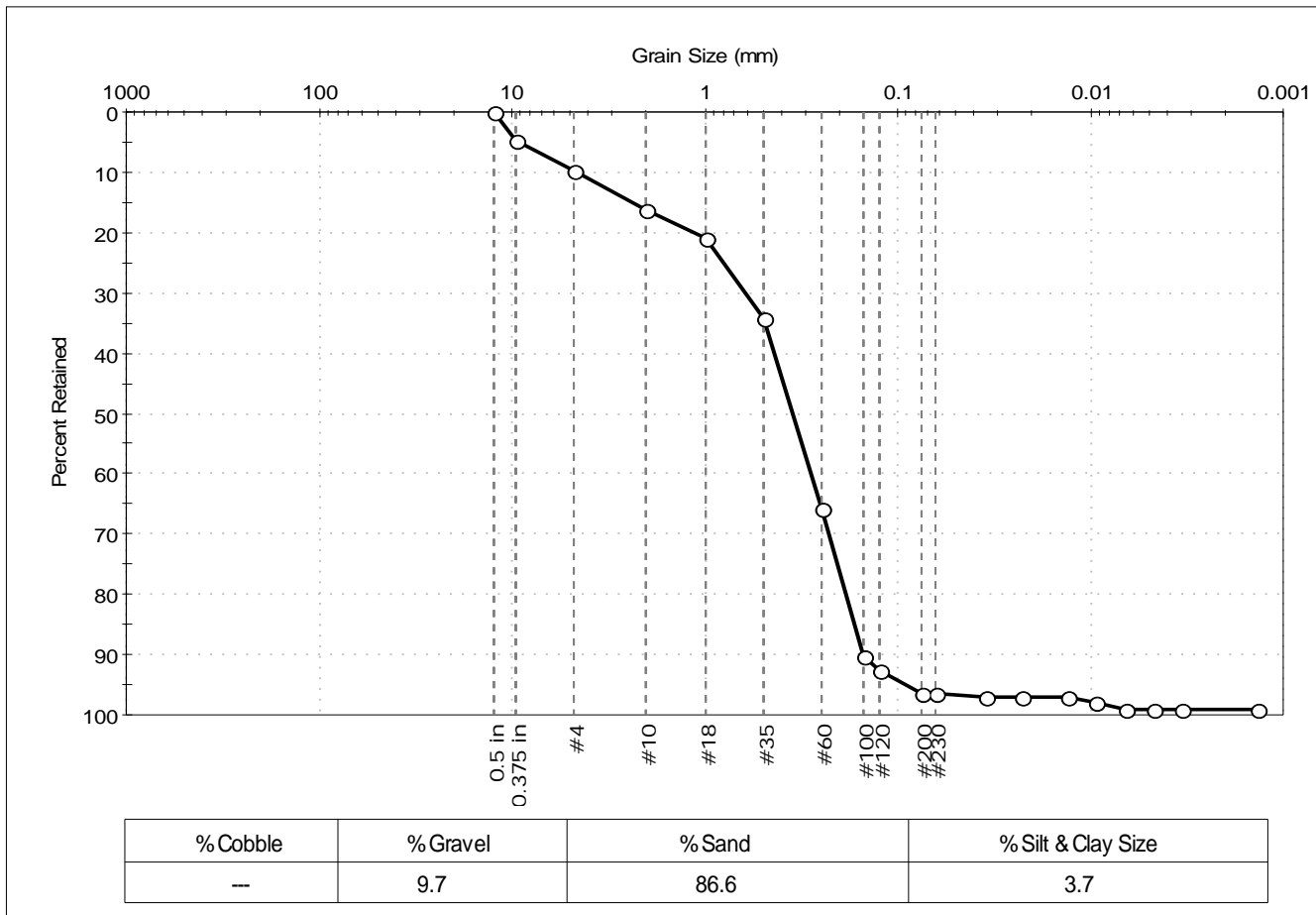
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 135-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0067	Test Date: 10/02/14	Test Id: 309542	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	5		
#4	4.75	10		
#10	2.00	16		
#18	1.00	21		
#35	0.50	34		
#60	0.25	66		
#100	0.15	90		
#120	0.12	93		
#200	0.075	96.3		
#230	0.063	97		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0349	97		
---	0.0230	97		
---	0.0132	97		
---	0.0094	98		
---	0.0065	99		
---	0.0047	99		
---	0.0033	99		
---	0.0014	99		

Coefficients

D ₈₅ = 2.3581 mm	D ₃₀ = 0.2289 mm
D ₆₀ = 0.4398 mm	D ₁₅ = 0.1676 mm
D ₅₀ = 0.3531 mm	D ₁₀ = 0.1511 mm
C _u = 2.911	C _c = 0.788

Classification

ASTM	Poorly graded sand (SP)
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

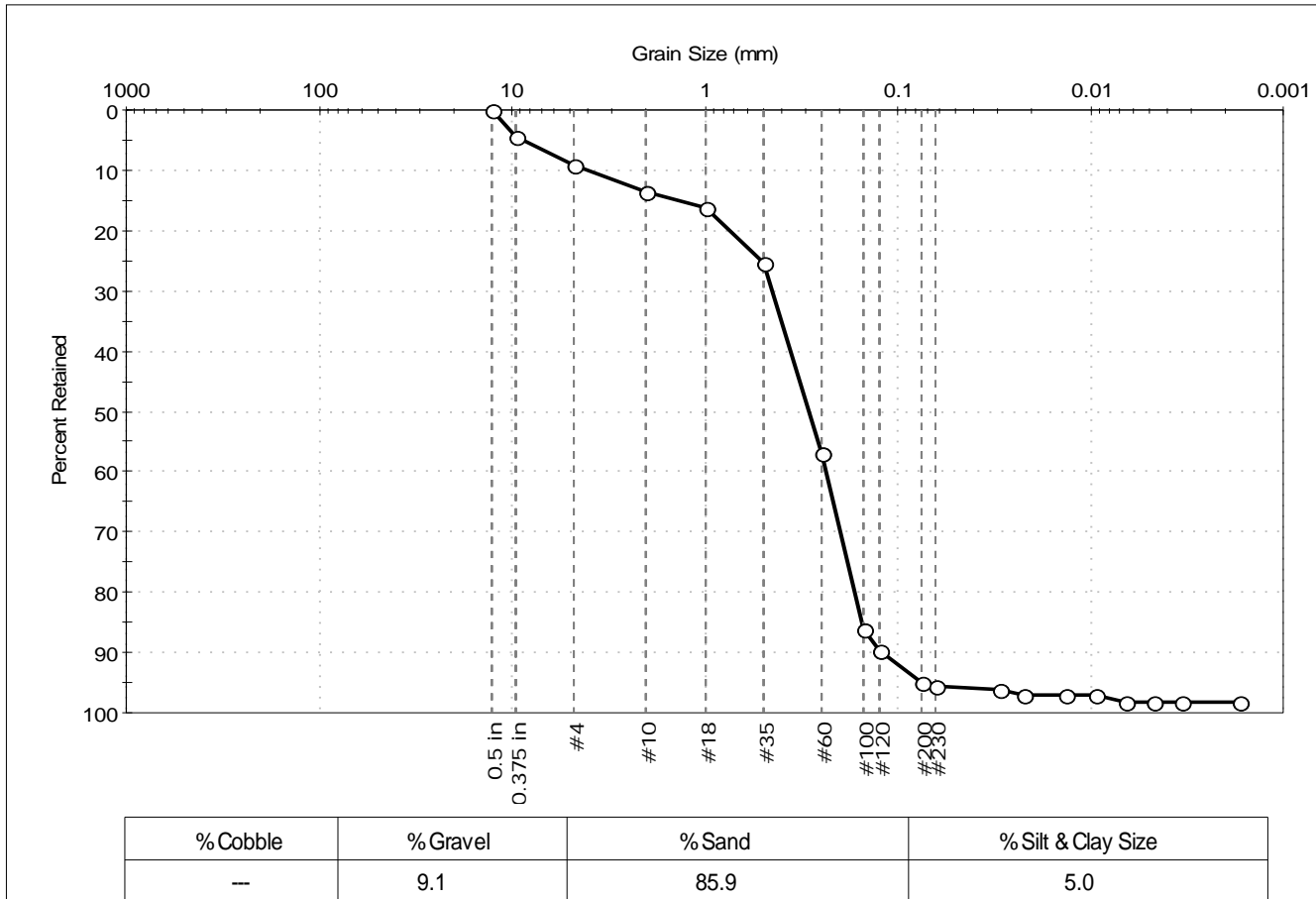
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 135-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0068
 Test Date: 10/08/14
 Checked By: jdt
 Depth: ---
 Test Id: 309543
 Test Comment: ---
 Sample Description: Wet, olive gray sand with silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	4		
#4	4.75	9		
#10	2.00	14		
#18	1.00	16		
#35	0.50	25		
#60	0.25	57		
#100	0.15	86		
#120	0.12	90		
#200	0.075	95.0		
#230	0.063	96		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0299	96		
---	0.0223	97		
---	0.0134	97		
---	0.0094	97		
---	0.0066	98		
---	0.0047	98		
---	0.0033	98		
---	0.0017	98		

Coefficients

D ₈₅ = 1.3655 mm	D ₃₀ = 0.1990 mm
D ₆₀ = 0.3619 mm	D ₁₅ = 0.1533 mm
D ₅₀ = 0.2908 mm	D ₁₀ = 0.1207 mm
C _u = 2.998	C _c = 0.907

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

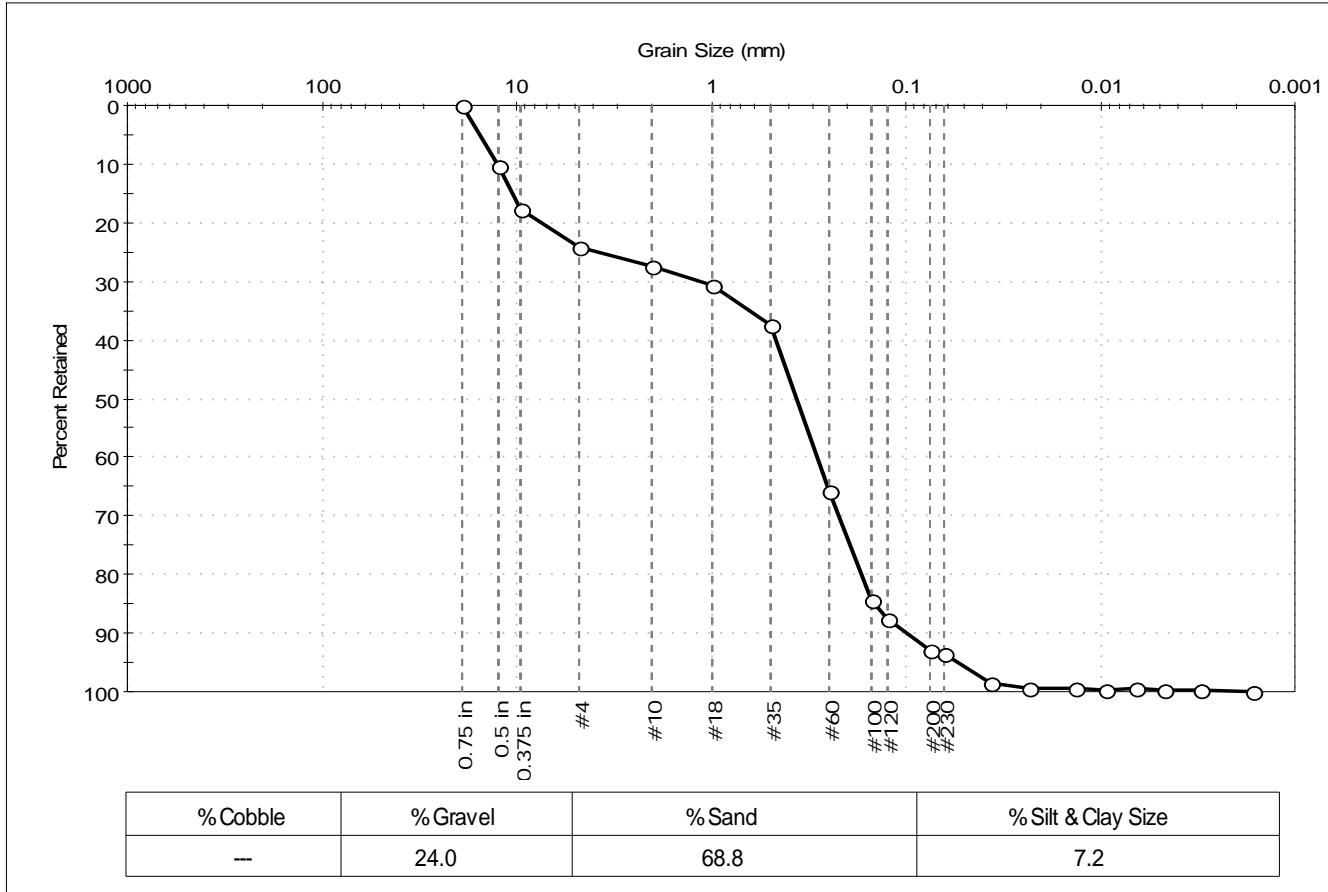
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 155-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0069	Test Date: 11/04/14	Checked By: jdt	
Depth: ---	Test Id: 310458		
Test Comment: ---			
Sample Description: Wet, dark olive gray sand with silt and gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	10		
0.375 in	9.50	18		
#4	4.75	24		
#10	2.00	27		
#18	1.00	31		
#35	0.50	37		
#60	0.25	66		
#100	0.15	84		
#120	0.12	88		
#200	0.075	92.8		
#230	0.063	94		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0368	98		
---	0.0234	99		
---	0.0134	99		
---	0.0094	100		
---	0.0066	99		
---	0.0047	100		
---	0.0031	100		
---	0.0016	100		

<u>Coefficients</u>	
D ₈₅ = 10.4759 mm	D ₃₀ = 0.2228 mm
D ₆₀ = 0.4698 mm	D ₁₅ = 0.1446 mm
D ₅₀ = 0.3680 mm	D ₁₀ = 0.0990 mm
C _u = 4.745	C _c = 1.067

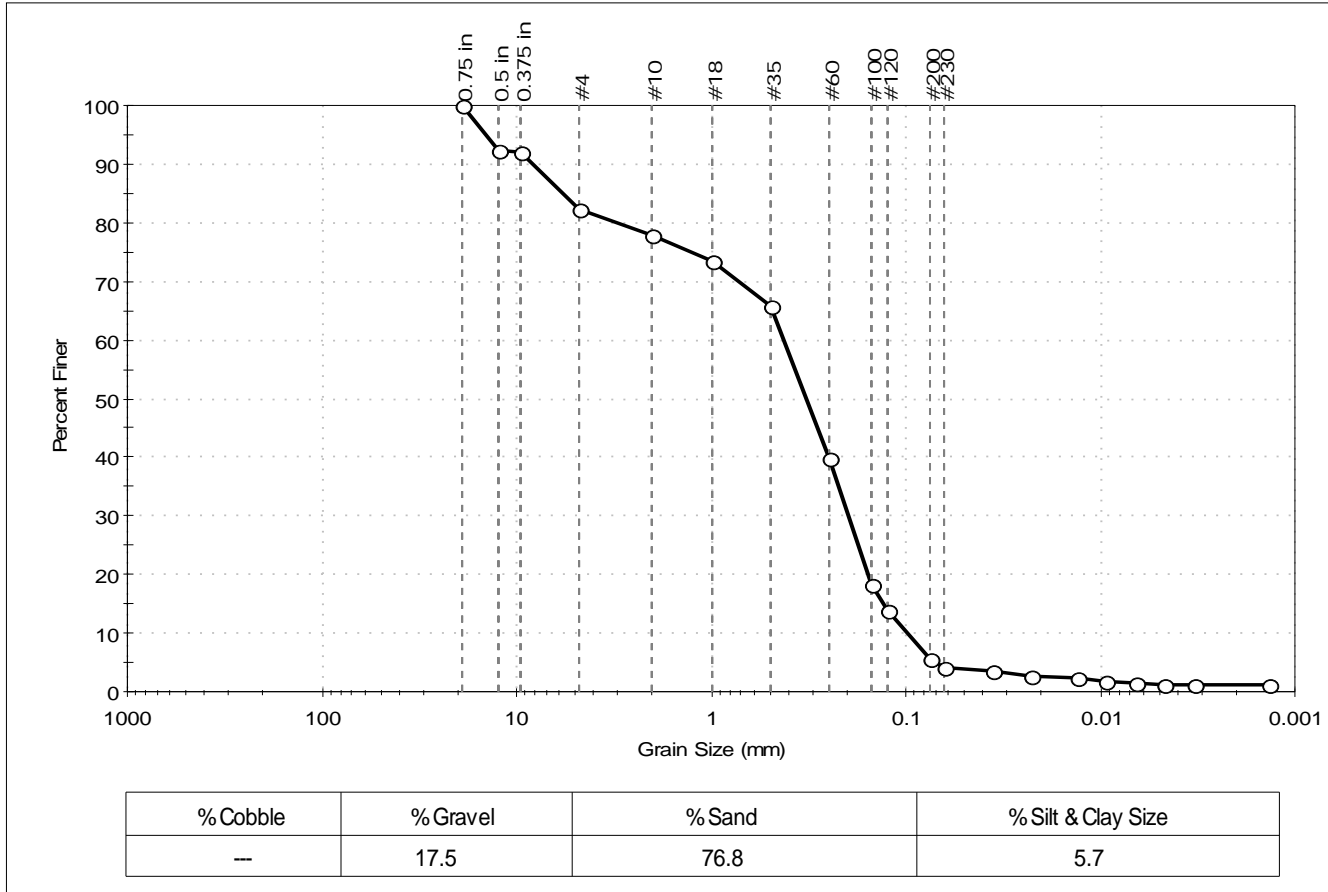
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 155-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0070	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310454		
Test Comment: ---			
Sample Description: Wet, dark olive gray sand with silt and gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	92		
0.375 in	9.50	92		
#4	4.75	82		
#10	2.00	78		
#18	1.00	74		
#35	0.50	66		
#60	0.25	40		
#100	0.15	18		
#120	0.12	14		
#200	0.075	5.7		
#230	0.063	4		
---	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0354	4		
---	0.0226	3		
---	0.0131	2		
---	0.0093	2		
---	0.0066	2		
---	0.0047	1		
---	0.0033	1		
---	0.0014	1		

<u>Coefficients</u>	
D ₈₅ = 5.7244 mm	D ₃₀ = 0.1982 mm
D ₆₀ = 0.4299 mm	D ₁₅ = 0.1305 mm
D ₅₀ = 0.3289 mm	D ₁₀ = 0.0979 mm
C _u = 4.391	C _c = 0.933

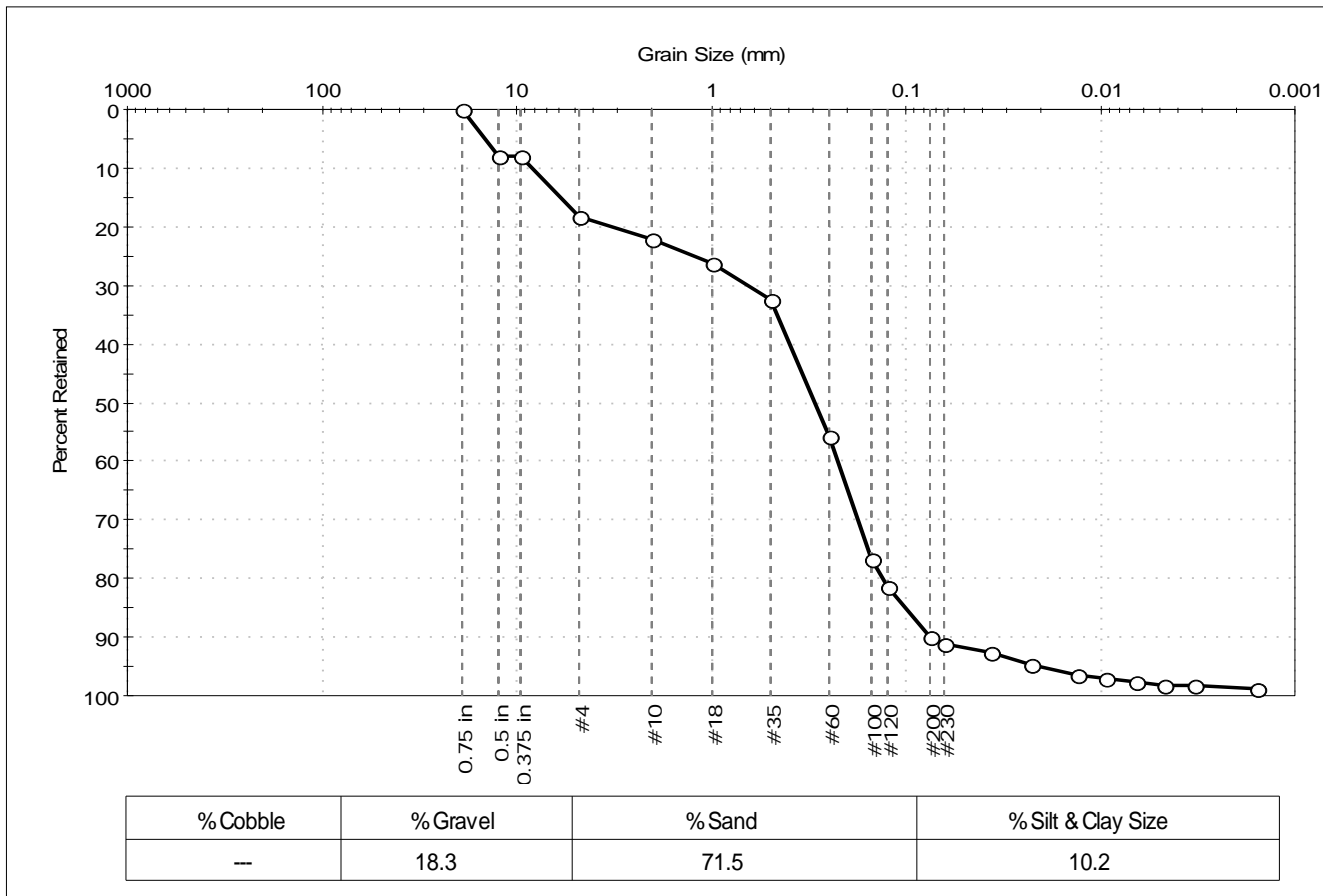
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 155-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0071	Test Date: 11/04/14	Test Id: 310455	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray sand with silt and gravel	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	8		
0.375 in	9.50	8		
#4	4.75	18		
#10	2.00	22		
#18	1.00	26		
#35	0.50	33		
#60	0.25	56		
#100	0.15	77		
#120	0.12	81		
#200	0.075	90		
#230	0.063	91		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0368	92		
---	0.0225	95		
---	0.0133	97		
---	0.0094	97		
---	0.0066	98		
---	0.0047	98		
---	0.0033	98		
---	0.0016	99		

<u>Coefficients</u>	
D ₈₅ = 5.9217 mm	D ₃₀ = 0.1768 mm
D ₆₀ = 0.4000 mm	D ₁₅ = 0.1002 mm
D ₅₀ = 0.2965 mm	D ₁₀ = 0.0735 mm
C _u = 5.442	C _c = 1.063

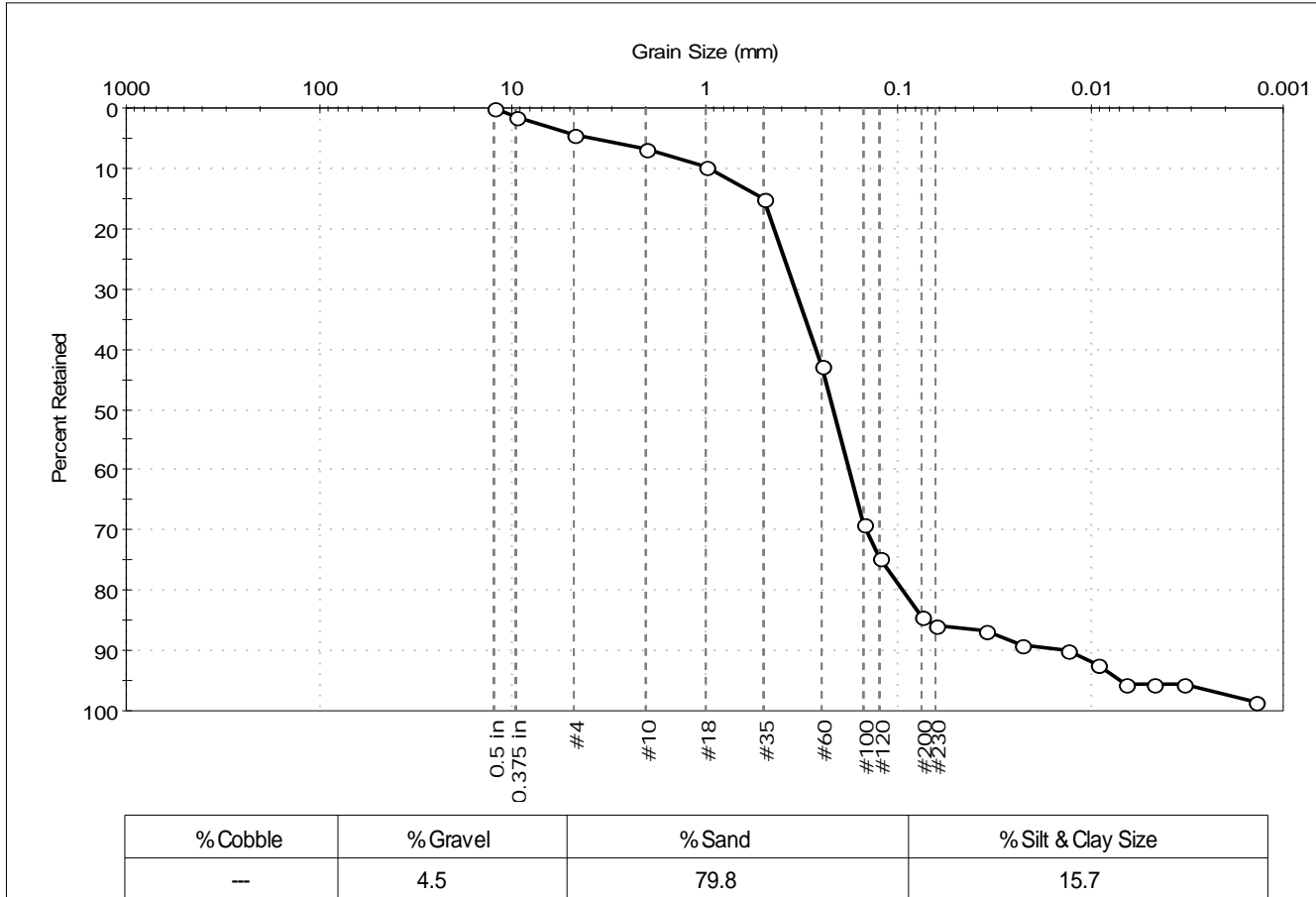
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 155-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0072	Test Date: 11/17/14	Checked By: jdt	
Depth: ---	Test Id: 310456		
Test Comment: ---			
Sample Description: Moist, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	4		
#10	2.00	7		
#18	1.00	10		
#35	0.50	15		
#60	0.25	43		
#100	0.15	69		
#120	0.12	75		
#200	0.075	84		
#230	0.063	86		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0352	87		
---	0.0225	89		
---	0.0130	90		
---	0.0093	92		
---	0.0066	96		
---	0.0047	96		
---	0.0033	96		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 0.5109 mm	D ₃₀ = 0.1459 mm
D ₆₀ = 0.2680 mm	D ₁₅ = 0.0691 mm
D ₅₀ = 0.2173 mm	D ₁₀ = 0.0137 mm
C _u = 19.562	C _c = 5.798

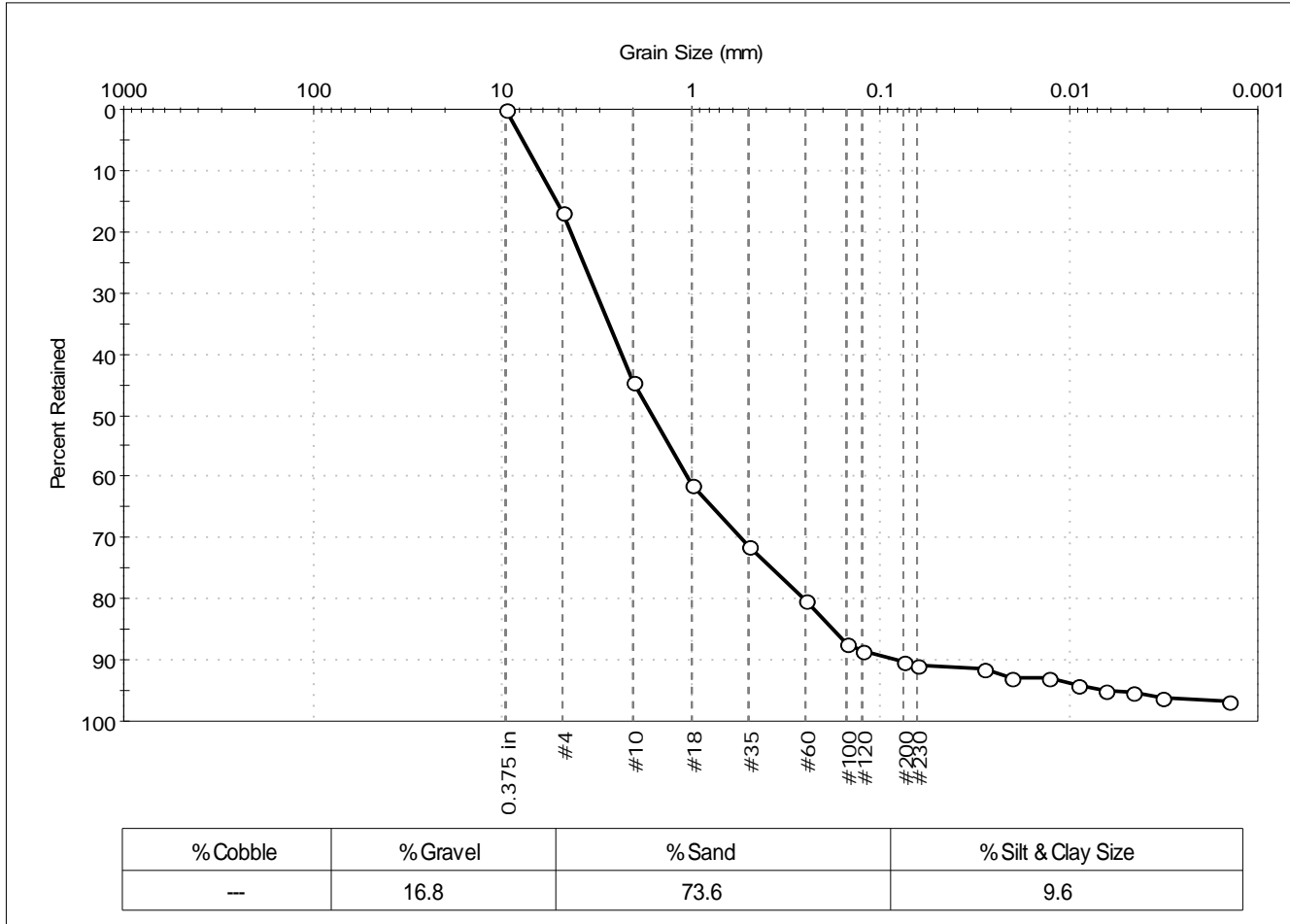
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 333-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0073	Test Date: 10/20/14	Test Id: 309506	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive sand with silt and gravel	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	17		
#10	2.00	44		
#18	1.00	61		
#35	0.50	72		
#60	0.25	80		
#100	0.15	87		
#120	0.12	89		
#200	0.075	90.4		
#230	0.063	91		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0283	92		
---	0.0203	93		
---	0.0127	93		
---	0.0089	94		
---	0.0065	95		
---	0.0046	95		
---	0.0032	96		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 5.1107 mm	D ₃₀ = 0.5537 mm
D ₆₀ = 2.2972 mm	D ₁₅ = 0.1759 mm
D ₅₀ = 1.5898 mm	D ₁₀ = 0.0841 mm
C _u = 27.315	C _c = 1.587

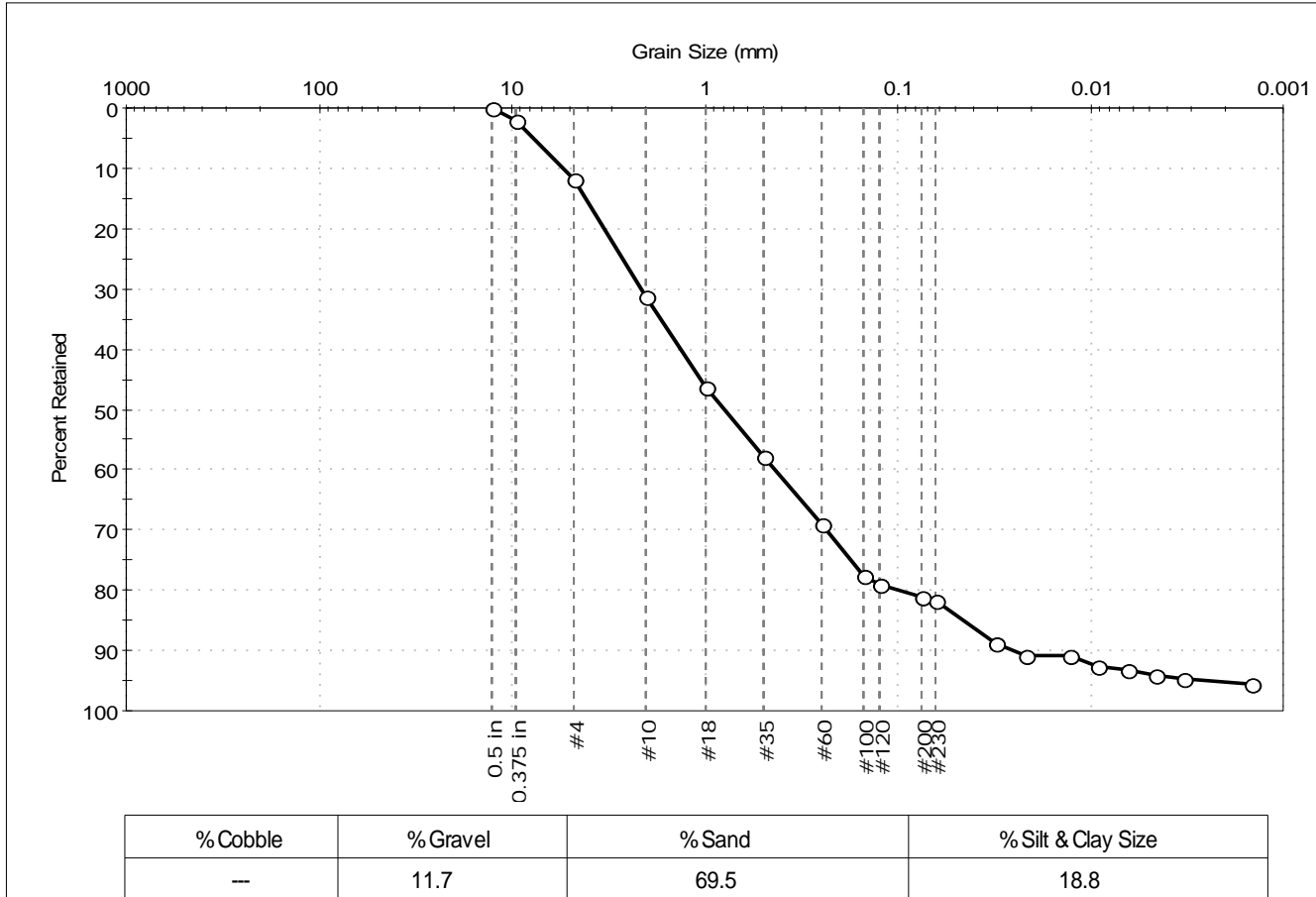
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	333-14LTM	Sample Type:	bag
Sample ID:	NBH14-0074	Test Date:	10/21/14
Depth:	---	Test Id:	309507
Test Comment:	---		
Sample Description:	Moist, dark greenish gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	2		
#4	4.75	12		
#10	2.00	31		
#18	1.00	46		
#35	0.50	58		
#60	0.25	69		
#100	0.15	78		
#120	0.12	79		
#200	0.075	81		
#230	0.063	82		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0312	89		
---	0.0216	91		
---	0.0129	91		
---	0.0092	92		
---	0.0065	93		
---	0.0046	94		
---	0.0033	95		
---	0.0015	95		

<u>Coefficients</u>	
D ₈₅ = 4.1123 mm	D ₃₀ = 0.2362 mm
D ₆₀ = 1.3341 mm	D ₁₅ = 0.0454 mm
D ₅₀ = 0.7982 mm	D ₁₀ = 0.0254 mm
C _u = 52.524	C _c = 1.646

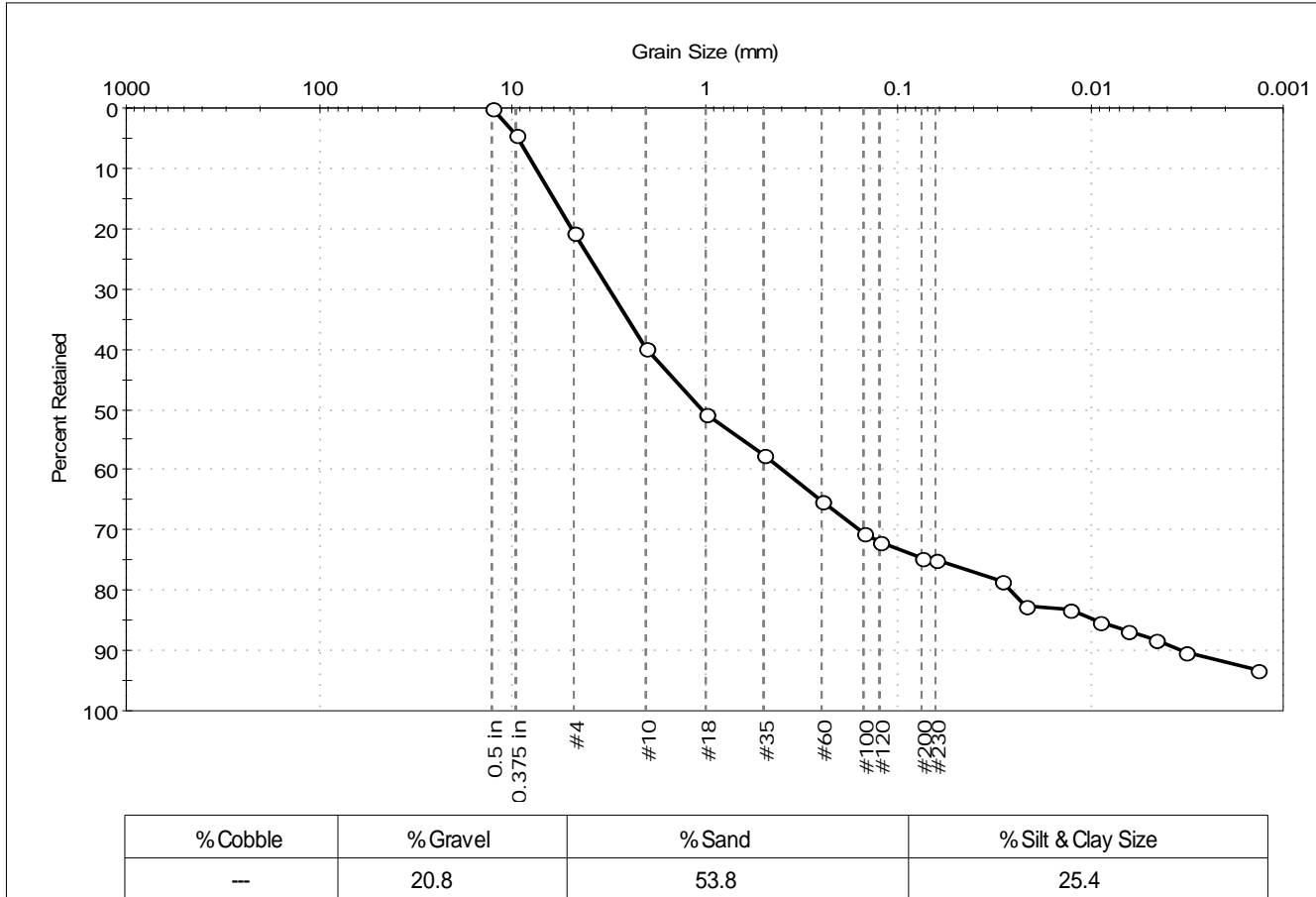
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 333-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0075	Test Date: 10/23/14	Depth: ---	Test Id: 309508
Test Comment: ---	Sample Description: Wet, olive green silty sand with gravel	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	5		
#4	4.75	21		
#10	2.00	40		
#18	1.00	51		
#35	0.50	58		
#60	0.25	65		
#100	0.15	71		
#120	0.12	72		
#200	0.075	75		
#230	0.063	75		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0290	78		
---	0.0218	83		
---	0.0127	83		
---	0.0091	85		
---	0.0064	87		
---	0.0046	88		
---	0.0033	90		
---	0.0014	93		

Coefficients

D ₈₅ = 6.0761 mm	D ₃₀ = 0.1583 mm
D ₆₀ = 1.9641 mm	D ₁₅ = 0.0096 mm
D ₅₀ = 1.0551 mm	D ₁₀ = 0.0035 mm
C _u = 561.171	C _c = 3.645

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

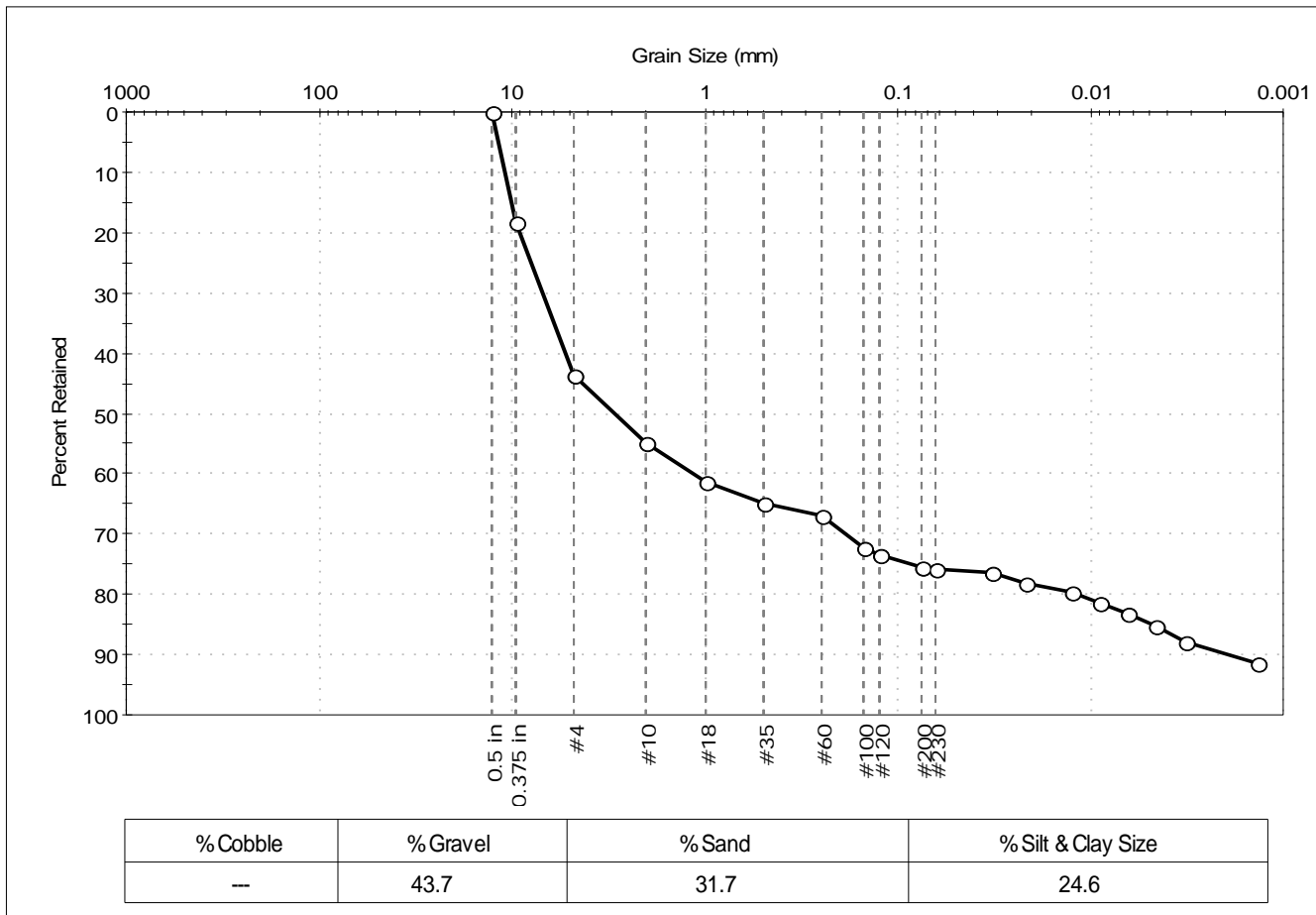
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	333-14LTM	Sample Type:	bag
Sample ID:	NBH14-0076	Test Date:	10/21/14
Depth:	---	Test Id:	309509
Test Comment:	---		
Sample Description:	Wet, greenish gray silty gravel with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	18		
#4	4.75	44		
#10	2.00	55		
#18	1.00	61		
#35	0.50	65		
#60	0.25	67		
#100	0.15	72		
#120	0.12	73		
#200	0.075	75		
#230	0.063	76		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	76		
---	0.0216	78		
---	0.0127	80		
---	0.0091	82		
---	0.0065	83		
---	0.0046	85		
---	0.0033	88		
---	0.0014	91		

Coefficients

D ₈₅ = 10.0240 mm	D ₃₀ = 0.1867 mm
D ₆₀ = 5.2612 mm	D ₁₅ = 0.0048 mm
D ₅₀ = 2.9343 mm	D ₁₀ = 0.0019 mm
C _u = 2769.053	C _c = 3.487

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

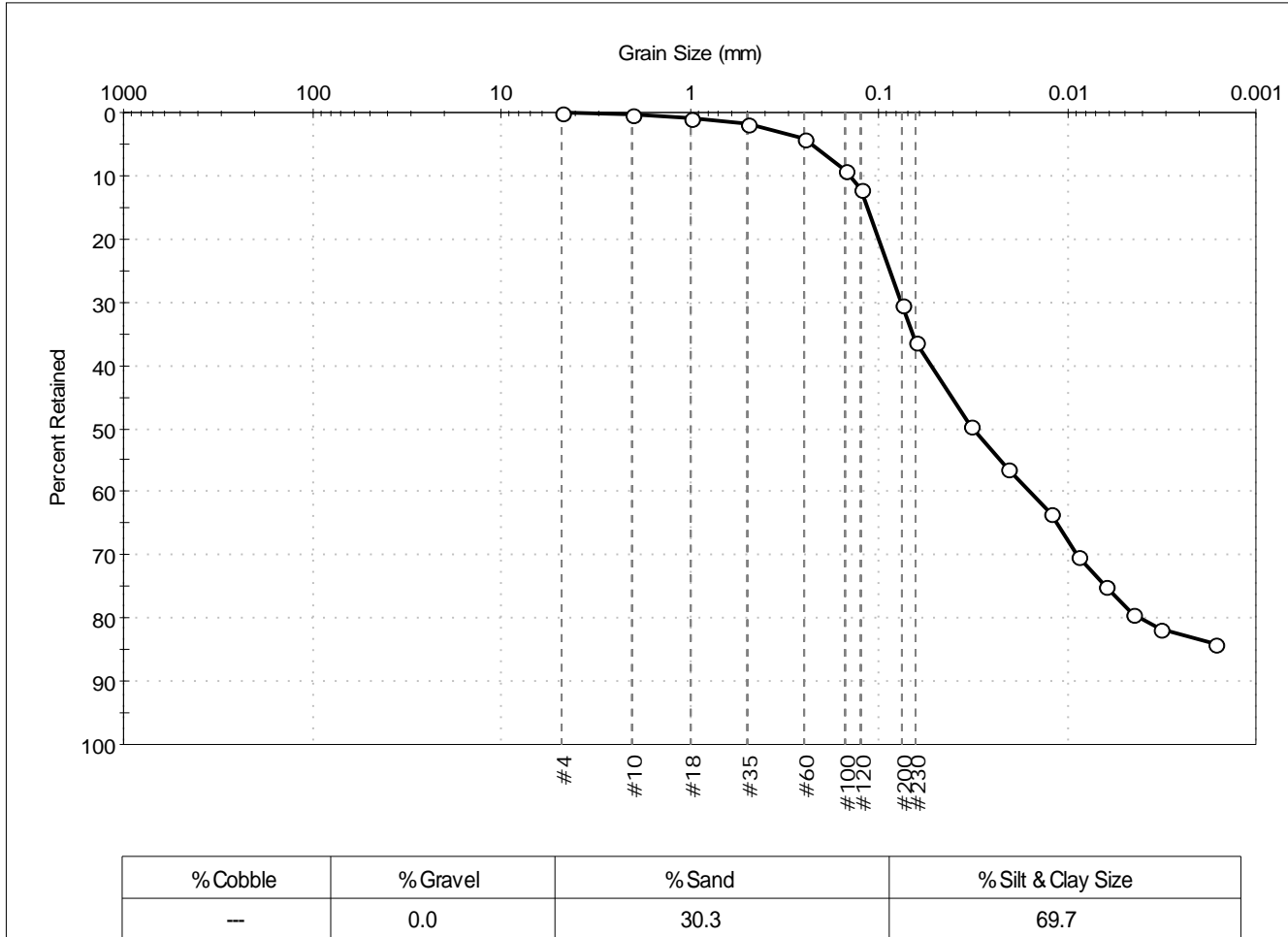
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 339-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0077	Test Date: 10/08/14	Checked By: jdt	
Depth: ---	Test Id: 309510		
Test Comment: ---			
Sample Description: Wet, greenish gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	4		
#100	0.15	9		
#120	0.12	12		
#200	0.075	30		
#230	0.063	36		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	50		
---	0.0208	56		
---	0.0124	63		
---	0.0088	70		
---	0.0063	75		
---	0.0045	79		
---	0.0032	82		
---	0.0016	84		

<u>Coefficients</u>	
D ₈₅ = 0.1149 mm	D ₃₀ = 0.0089 mm
D ₆₀ = 0.0521 mm	D ₁₅ = N/A
D ₅₀ = 0.0315 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

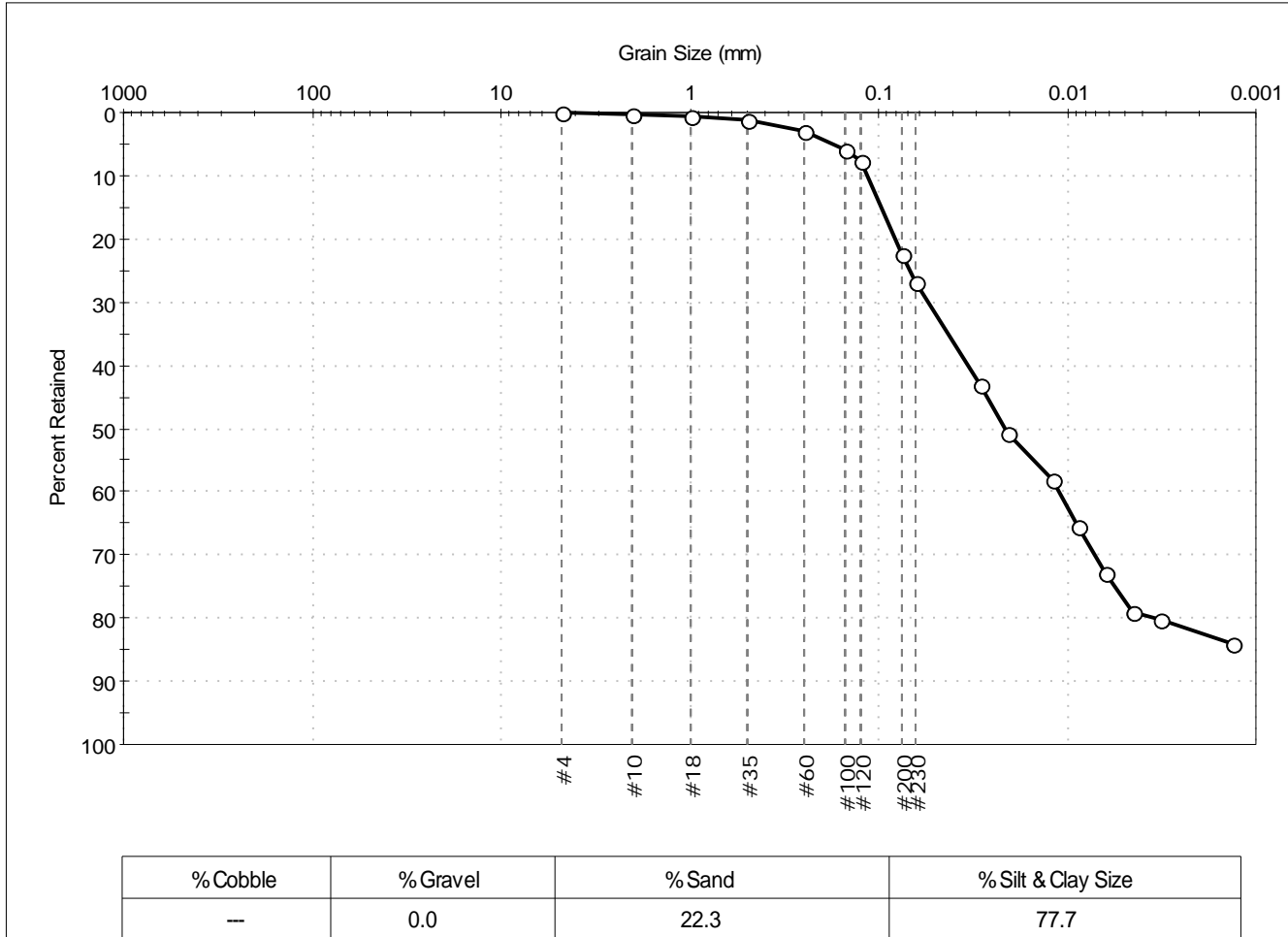
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 339-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0078	Test Date: 10/14/14	Checked By: jdt	
Depth: ---	Test Id: 309511		
Test Comment: ---			
Sample Description: Wet, greenish gray silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	3		
#100	0.15	6		
#120	0.12	8		
#200	0.075	22		
#230	0.063	27		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0291	43		
---	0.0207	51		
---	0.0121	58		
---	0.0087	65		
---	0.0063	73		
---	0.0045	79		
---	0.0032	80		
---	0.0013	84		

<u>Coefficients</u>	
D ₈₅ = 0.0970 mm	D ₃₀ = 0.0071 mm
D ₆₀ = 0.0338 mm	D ₁₅ = N/A
D ₅₀ = 0.0213 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

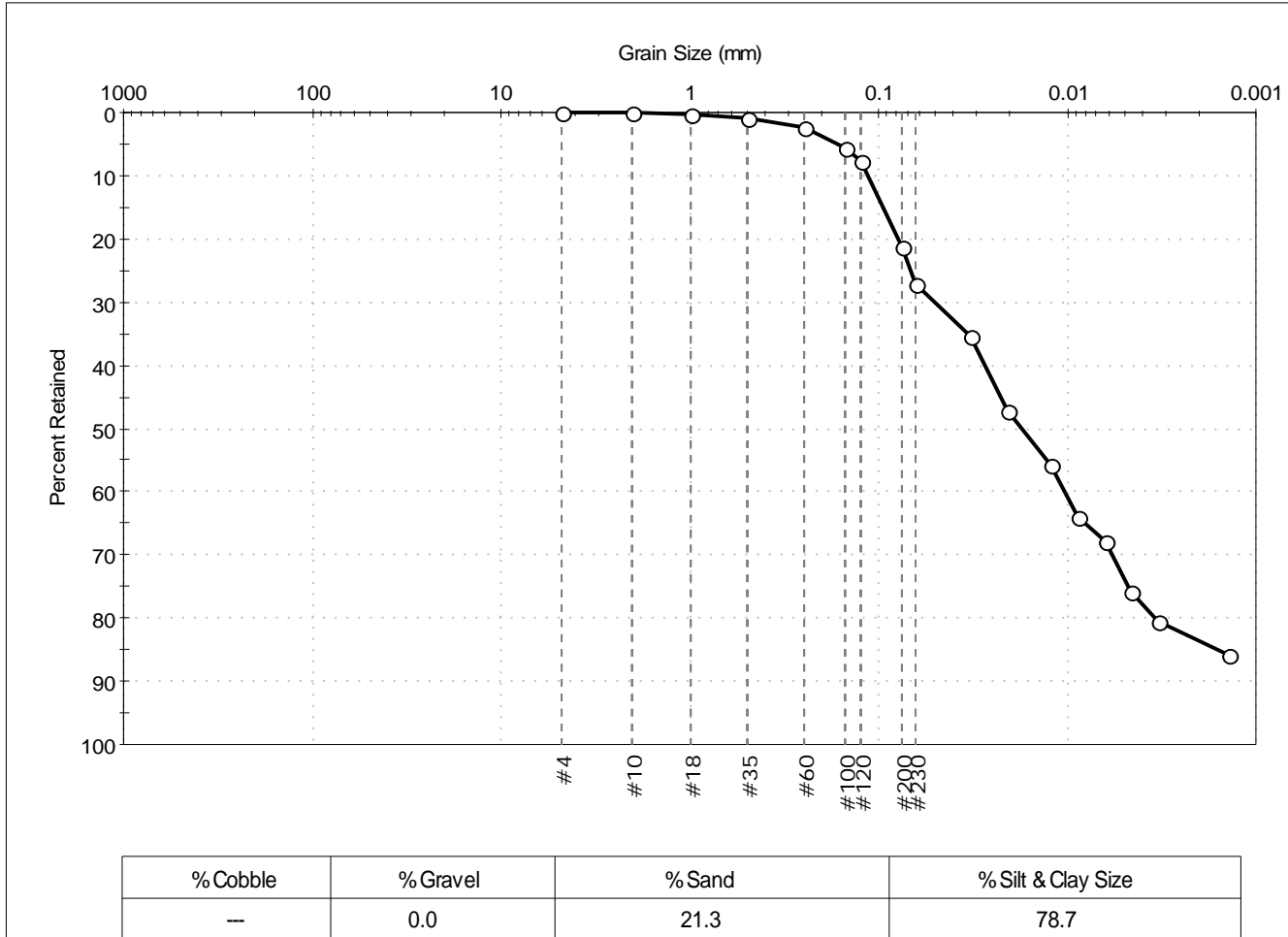
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 339-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0079	Test Date: 10/20/14	Depth: ---	Test Id: 309512
Test Comment: ---	Sample Description: Wet, greenish gray silt with sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	2		
#100	0.15	6		
#120	0.12	8		
#200	0.075	21		
#230	0.063	27		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0327	35		
---	0.0207	47		
---	0.0123	56		
---	0.0089	64		
---	0.0063	68		
---	0.0046	76		
---	0.0033	81		
---	0.0014	86		

Coefficients	
D ₈₅ = 0.0947 mm	D ₃₀ = 0.0058 mm
D ₆₀ = 0.0274 mm	D ₁₅ = 0.0016 mm
D ₅₀ = 0.0175 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

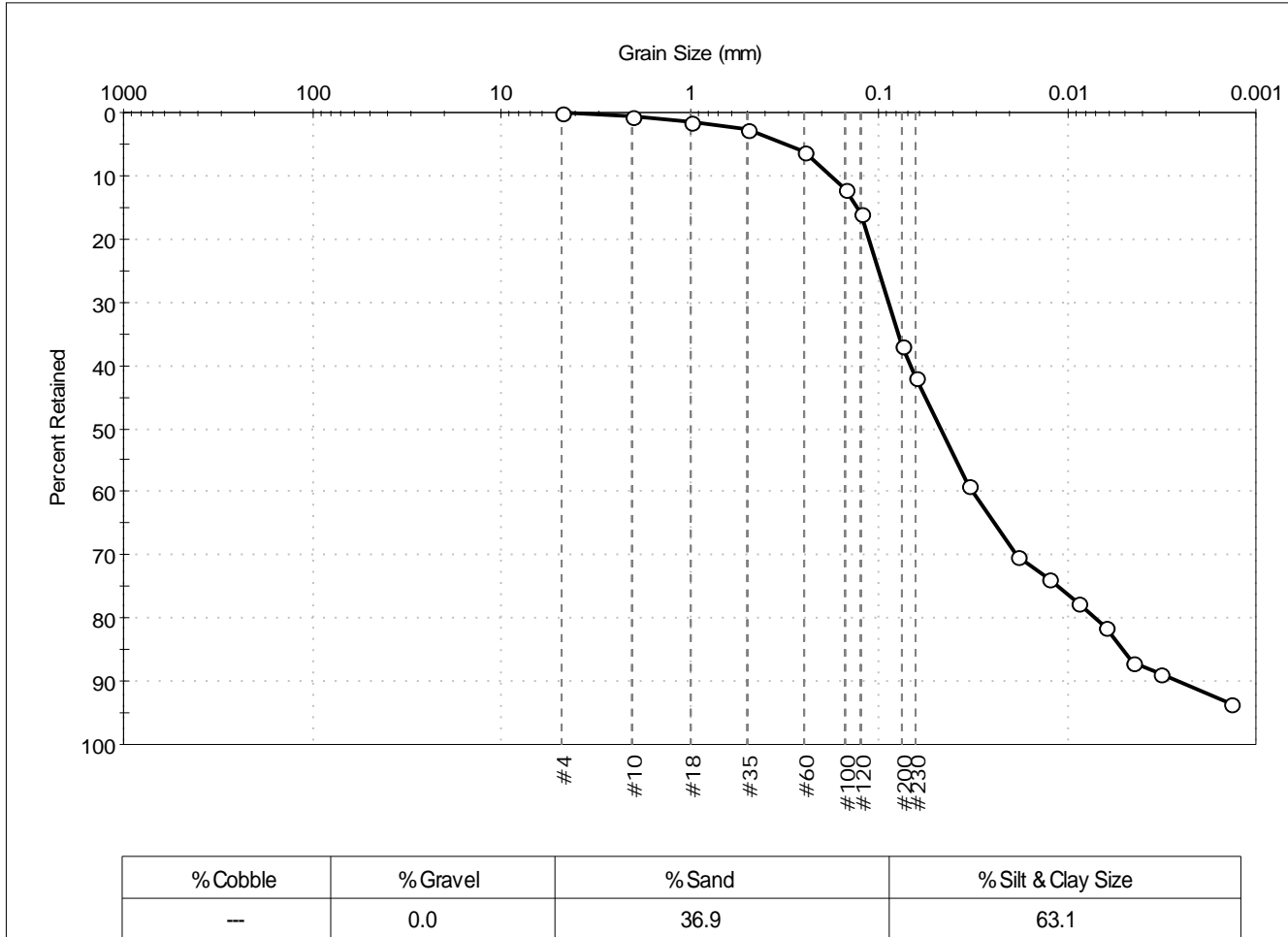
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 339-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0080	Test Date: 10/21/14	Test Id: 309513	
Depth: ---	Test Comment: ---		
Sample Description: Wet, greenish gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	1		
#35	0.50	3		
#60	0.25	6		
#100	0.15	12		
#120	0.12	16		
#200	0.075	37		
#230	0.063	42		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0334	59		
---	0.0184	70		
---	0.0124	74		
---	0.0089	78		
---	0.0063	81		
---	0.0045	87		
---	0.0033	89		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.1303 mm	D ₃₀ = 0.0185 mm
D ₆₀ = 0.0675 mm	D ₁₅ = 0.0051 mm
D ₅₀ = 0.0466 mm	D ₁₀ = 0.0026 mm
C _u = 25.962	C _c = 1.950

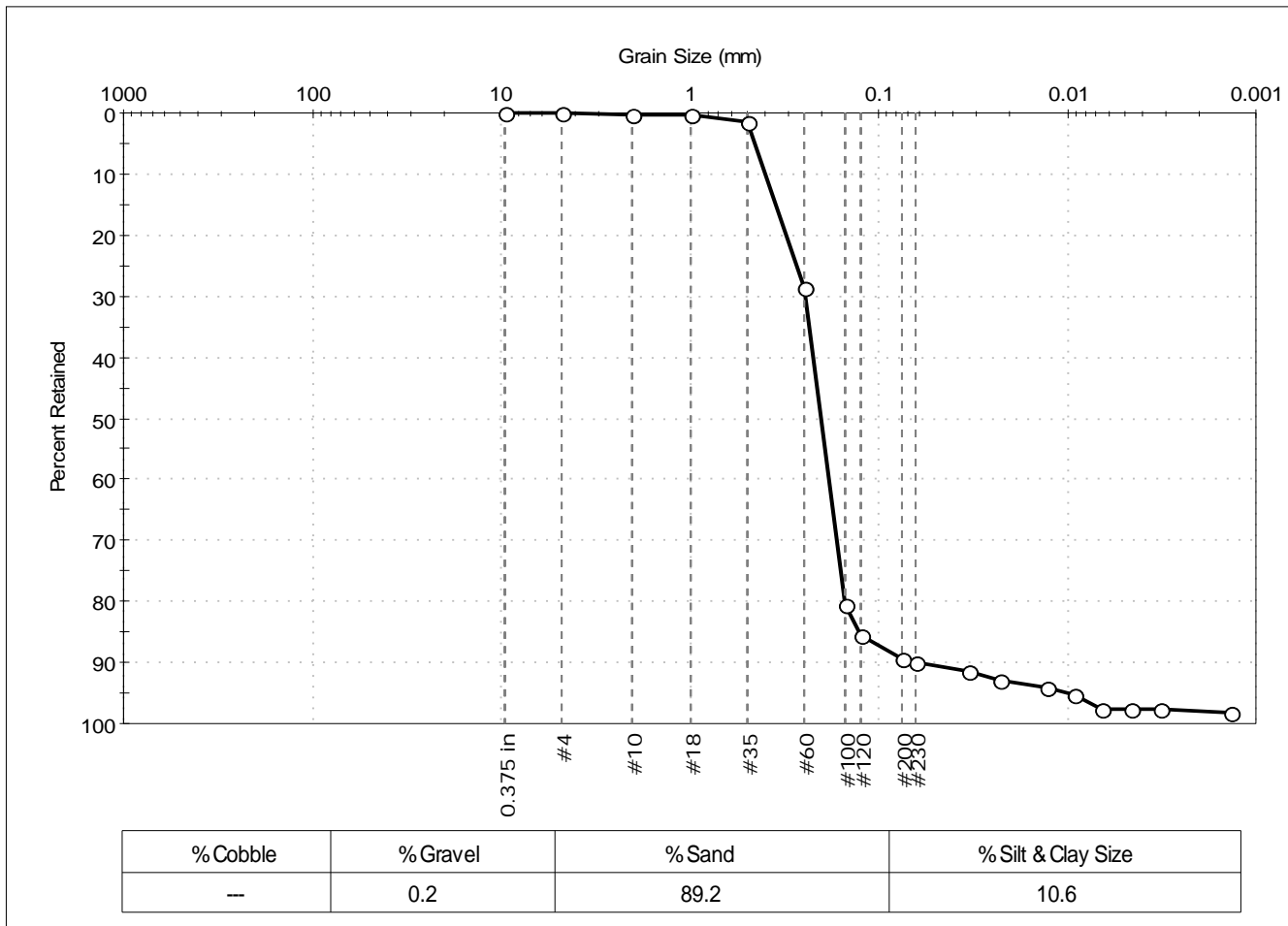
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 346-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0081
 Test Date: 10/21/14
 Checked By: jdt
 Depth: ---
 Test Id: 309514
 Test Comment: ---
 Sample Description: Wet, greenish gray sand with silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	29		
#100	0.15	81		
#120	0.12	85		
#200	0.075	89		
#230	0.063	90		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	92		
---	0.0228	93		
---	0.0130	94		
---	0.0093	95		
---	0.0066	98		
---	0.0047	98		
---	0.0032	98		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 0.3532 mm	D ₃₀ = 0.1665 mm
D ₆₀ = 0.2235 mm	D ₁₅ = 0.1273 mm
D ₅₀ = 0.2026 mm	D ₁₀ = 0.0639 mm
C _u = 3.498	C _c = 1.941

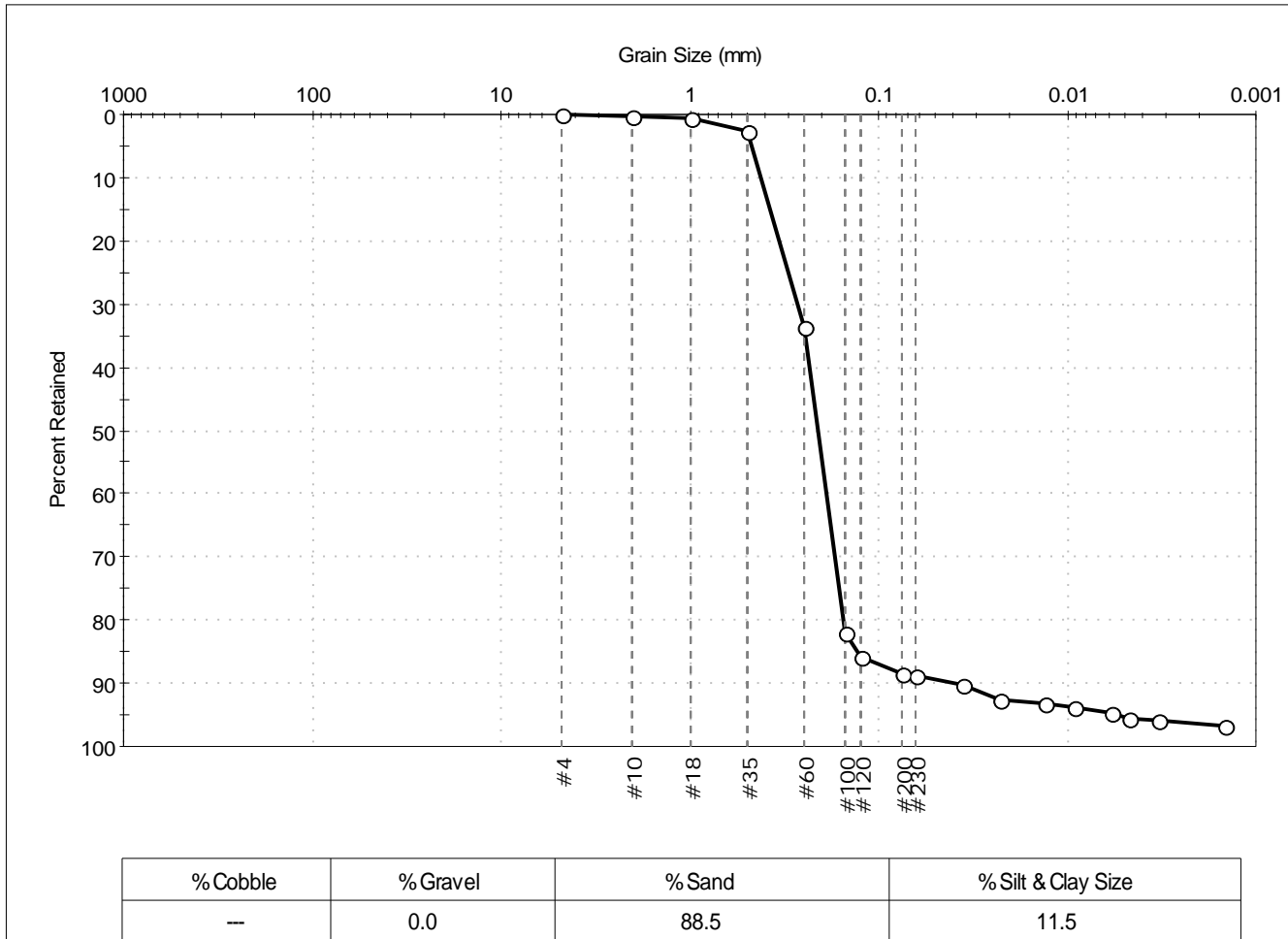
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 346-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0082	Test Date: 10/15/14	Test Id: 309515	
Depth: ---	Test Comment: ---	Sample Description: Moist, greenish gray sand with silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	34		
#100	0.15	82		
#120	0.12	86		
#200	0.075	89		
#230	0.063	89		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0359	90		
---	0.0231	93		
---	0.0132	93		
---	0.0092	94		
---	0.0059	95		
---	0.0047	95		
---	0.0033	96		
---	0.0015	97		

<u>Coefficients</u>	
D ₈₅ = 0.3793 mm	D ₃₀ = 0.1703 mm
D ₆₀ = 0.2340 mm	D ₁₅ = 0.1301 mm
D ₅₀ = 0.2105 mm	D ₁₀ = 0.0394 mm
C _u = 5.939	C _c = 3.146

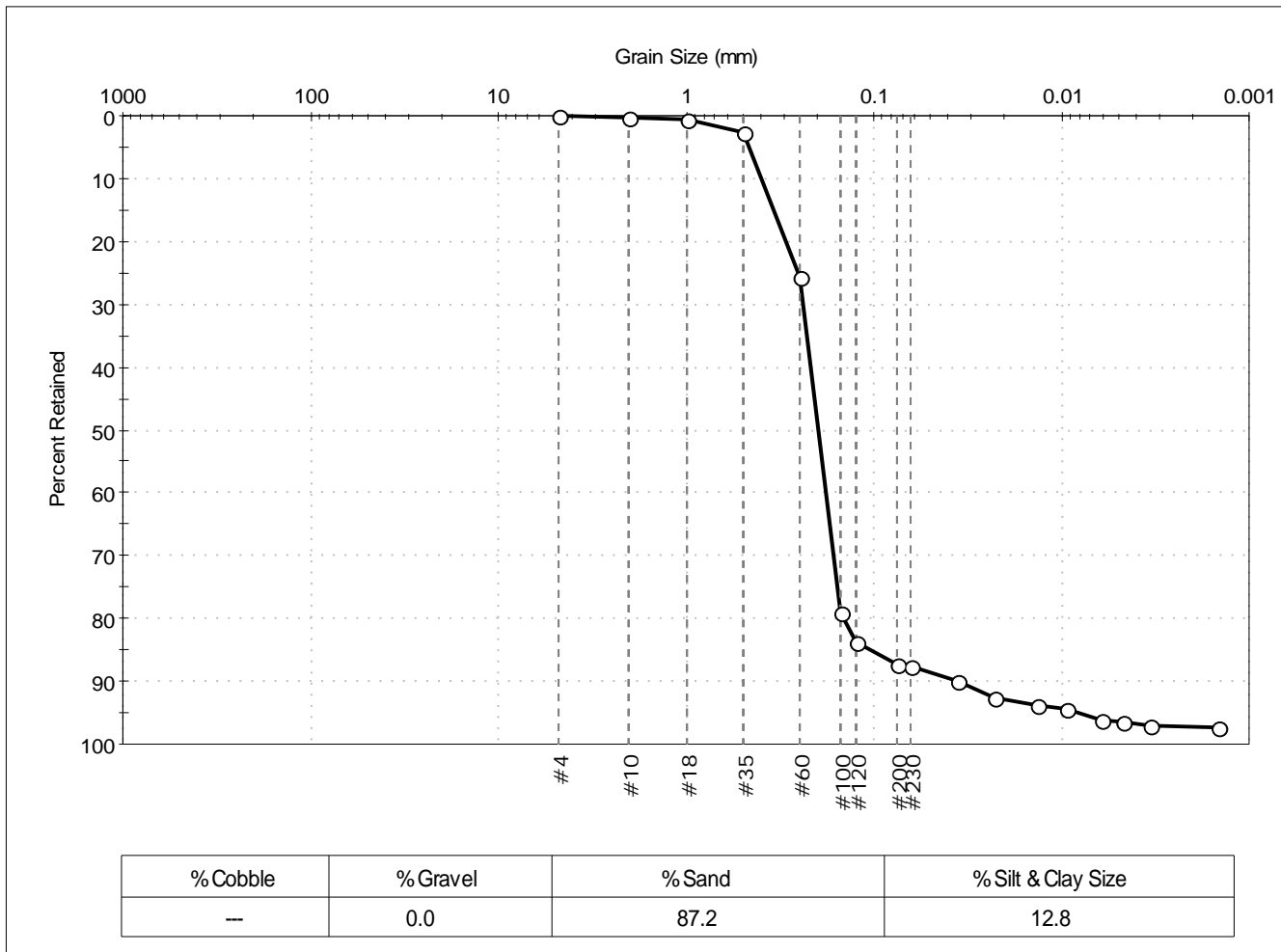
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	346-14LTM	Sample Type:	bag
Sample ID:	NBH14-0083	Test Date:	10/15/14
Depth:	---	Test Id:	309516
Test Comment:	---		
Sample Description:	Moist, greenish gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	26		
#100	0.15	79		
#120	0.12	84		
#200	0.075	87		
#230	0.063	88		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0360	90		
---	0.0229	93		
---	0.0134	94		
---	0.0094	94		
---	0.0061	96		
---	0.0047	96		
---	0.0034	97		
---	0.0015	97		

<u>Coefficients</u>	
D ₈₅ = 0.3446 mm	D ₃₀ = 0.1637 mm
D ₆₀ = 0.2178 mm	D ₁₅ = 0.1048 mm
D ₅₀ = 0.1980 mm	D ₁₀ = 0.0368 mm
C _u = 5.918	C _c = 3.343

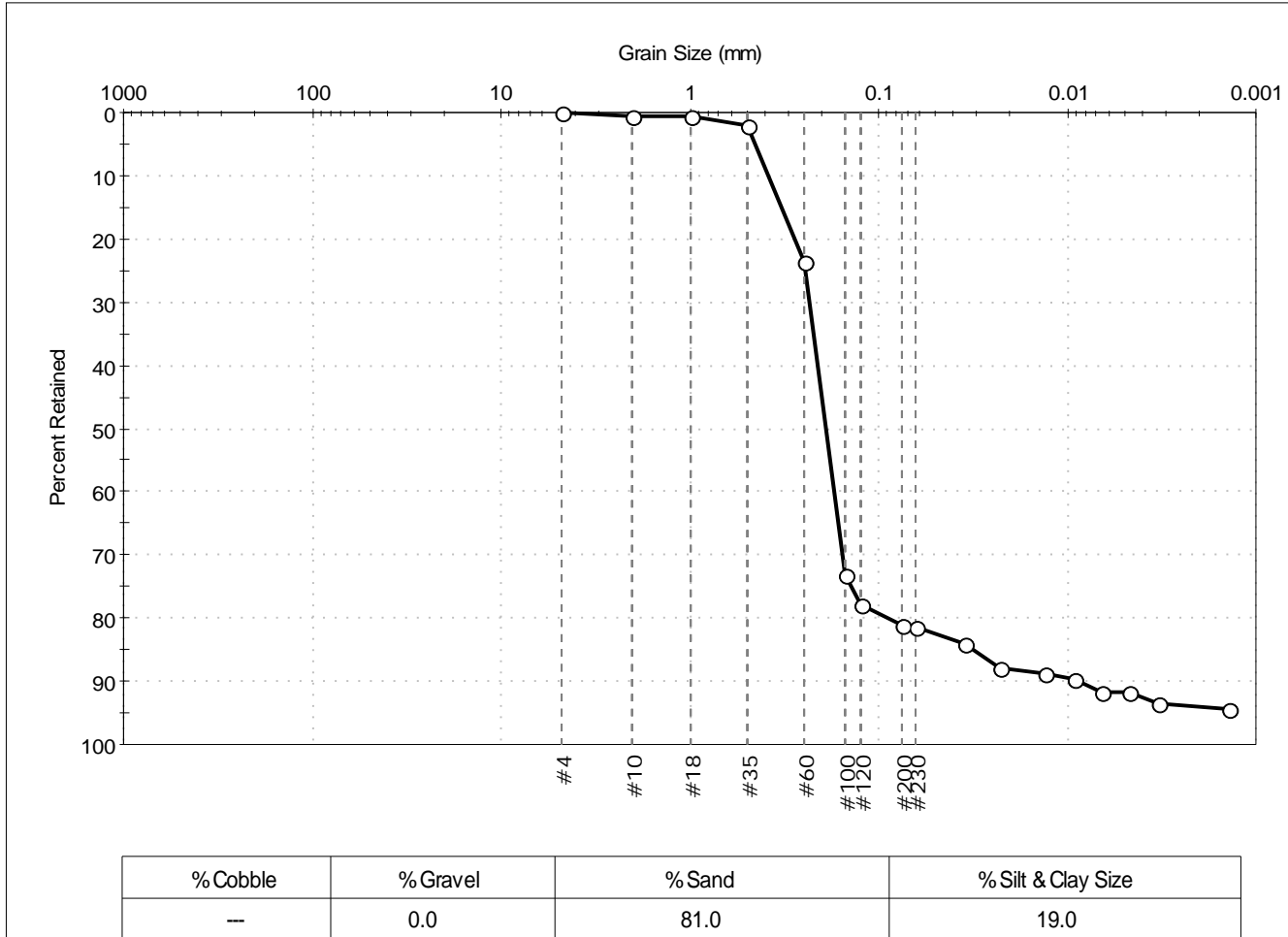
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 346-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0084	Test Date: 10/21/14	Test Id: 309517	
Depth: ---	Test Comment: ---		
Sample Description: Wet, greenish gray silty sand	Sample Comment: ----		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	24		
#100	0.15	73		
#120	0.12	78		
#200	0.075	81		
#230	0.063	81		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0353	84		
---	0.0229	88		
---	0.0132	89		
---	0.0093	90		
---	0.0066	92		
---	0.0047	92		
---	0.0033	93		
---	0.0014	94		

<u>Coefficients</u>	
D ₈₅ = 0.3297 mm	D ₃₀ = 0.1548 mm
D ₆₀ = 0.2110 mm	D ₁₅ = 0.0322 mm
D ₅₀ = 0.1903 mm	D ₁₀ = 0.0089 mm
C _u = 23.708	C _c = 12.761

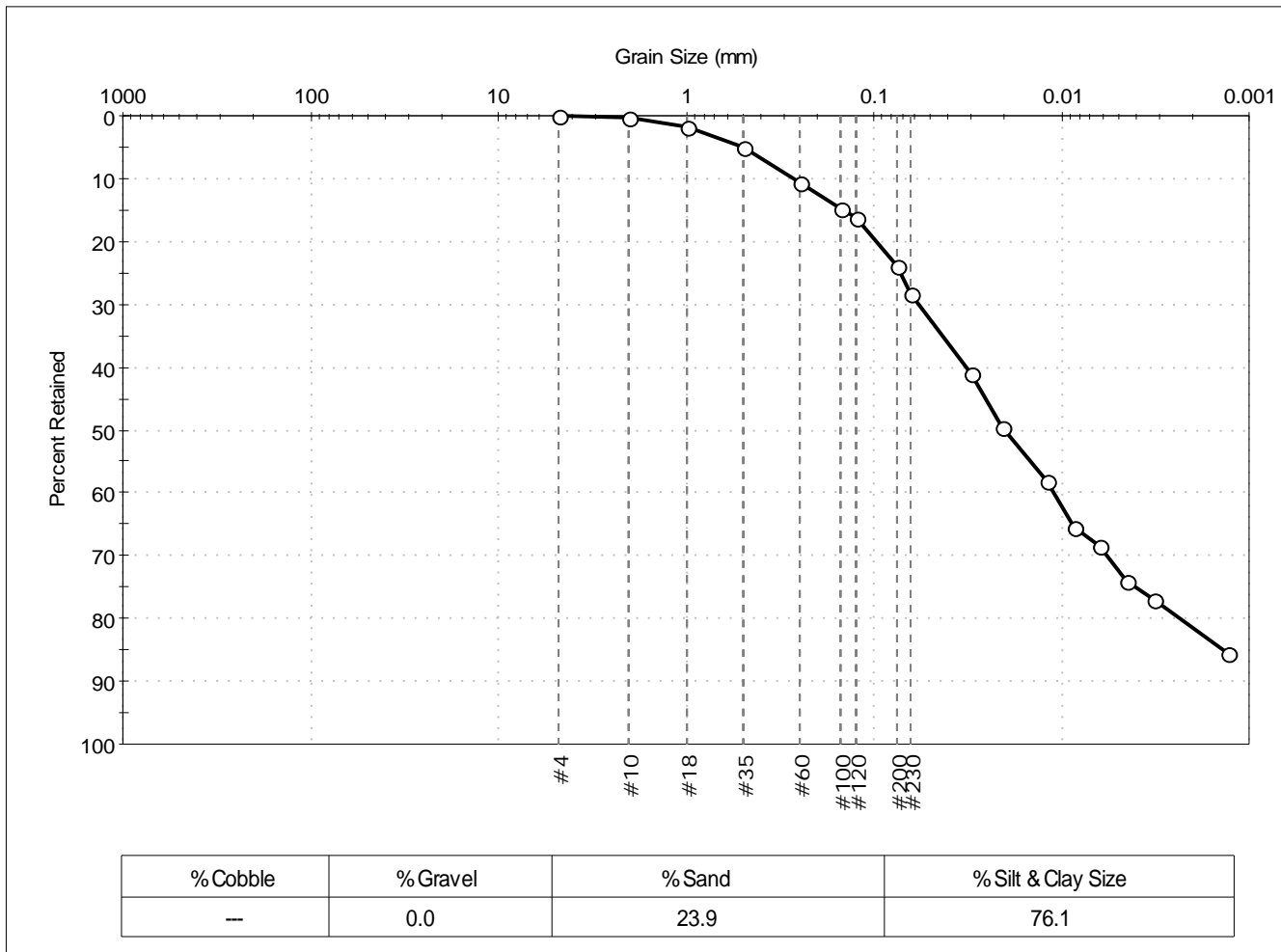
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 340-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0085	Test Date: 10/08/14	Test Id: 309518	
Depth: ---	Test Comment: ---	Sample Description: Wet, greenish gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	5		
#60	0.25	11		
#100	0.15	15		
#120	0.12	16		
#200	0.075	24		
#230	0.063	28		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0303	41		
---	0.0209	50		
---	0.0120	58		
---	0.0087	65		
---	0.0063	68		
---	0.0045	74		
---	0.0032	77		
---	0.0013	86		

<u>Coefficients</u>	
D ₈₅ = 0.1438 mm	D ₃₀ = 0.0057 mm
D ₆₀ = 0.0319 mm	D ₁₅ = 0.0014 mm
D ₅₀ = 0.0203 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

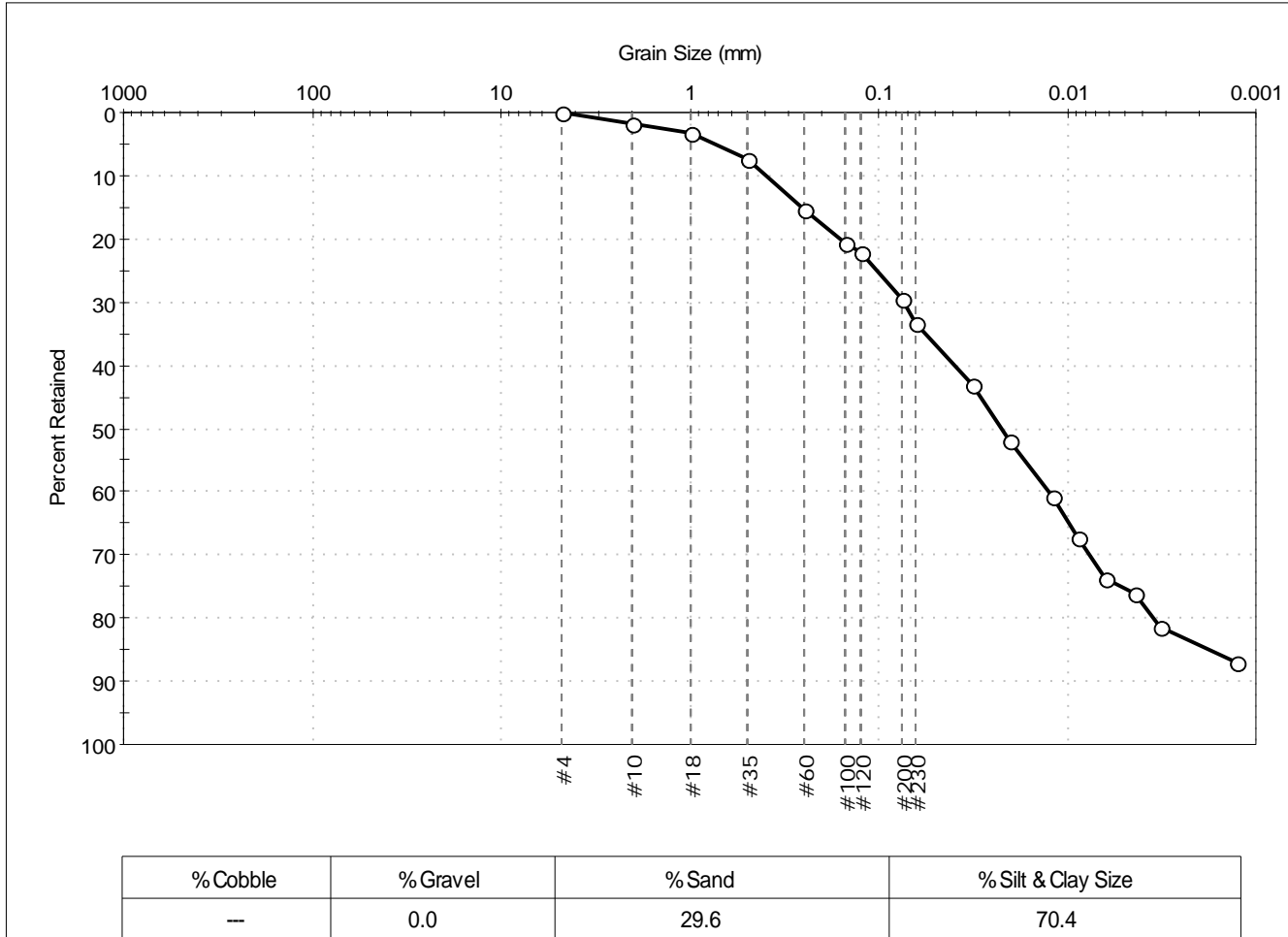
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 340-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0086	Test Date: 10/08/14	Checked By: jdt	
Depth: ---	Test Id: 309519		
Test Comment: ---			
Sample Description: Moist, greenish gray silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	3		
#35	0.50	7		
#60	0.25	15		
#100	0.15	21		
#120	0.12	22		
#200	0.075	30		
#230	0.063	33		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0322	43		
---	0.0201	52		
---	0.0121	61		
---	0.0087	67		
---	0.0063	74		
---	0.0044	76		
---	0.0032	81		
---	0.0013	87		

<u>Coefficients</u>	
D ₈₅ = 0.2543 mm	D ₃₀ = 0.0076 mm
D ₆₀ = 0.0400 mm	D ₁₅ = 0.0018 mm
D ₅₀ = 0.0223 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

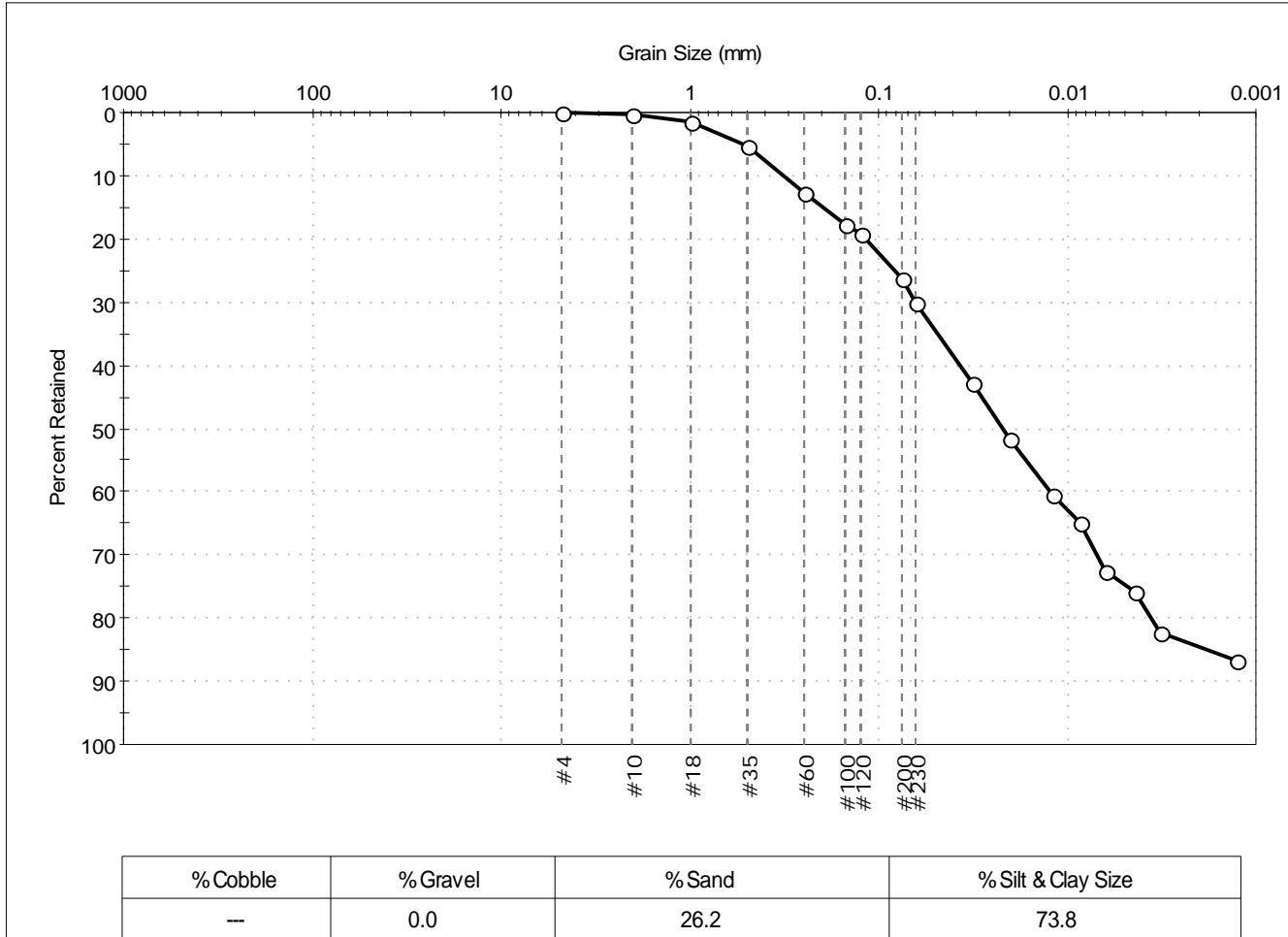
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 340-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0086DUP	Test Date: 10/08/14	Checked By: jdt	
Depth: ---	Test Id: 309520		
Test Comment: ---			
Sample Description: Moist, greenish gray silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	5		
#60	0.25	13		
#100	0.15	18		
#120	0.12	19		
#200	0.075	26		
#230	0.063	30		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0319	43		
---	0.0203	52		
---	0.0120	60		
---	0.0087	65		
---	0.0062	73		
---	0.0043	76		
---	0.0032	82		
---	0.0013	87		

<u>Coefficients</u>	
D ₈₅ = 0.1976 mm	D ₃₀ = 0.0070 mm
D ₆₀ = 0.0371 mm	D ₁₅ = 0.0019 mm
D ₅₀ = 0.0222 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

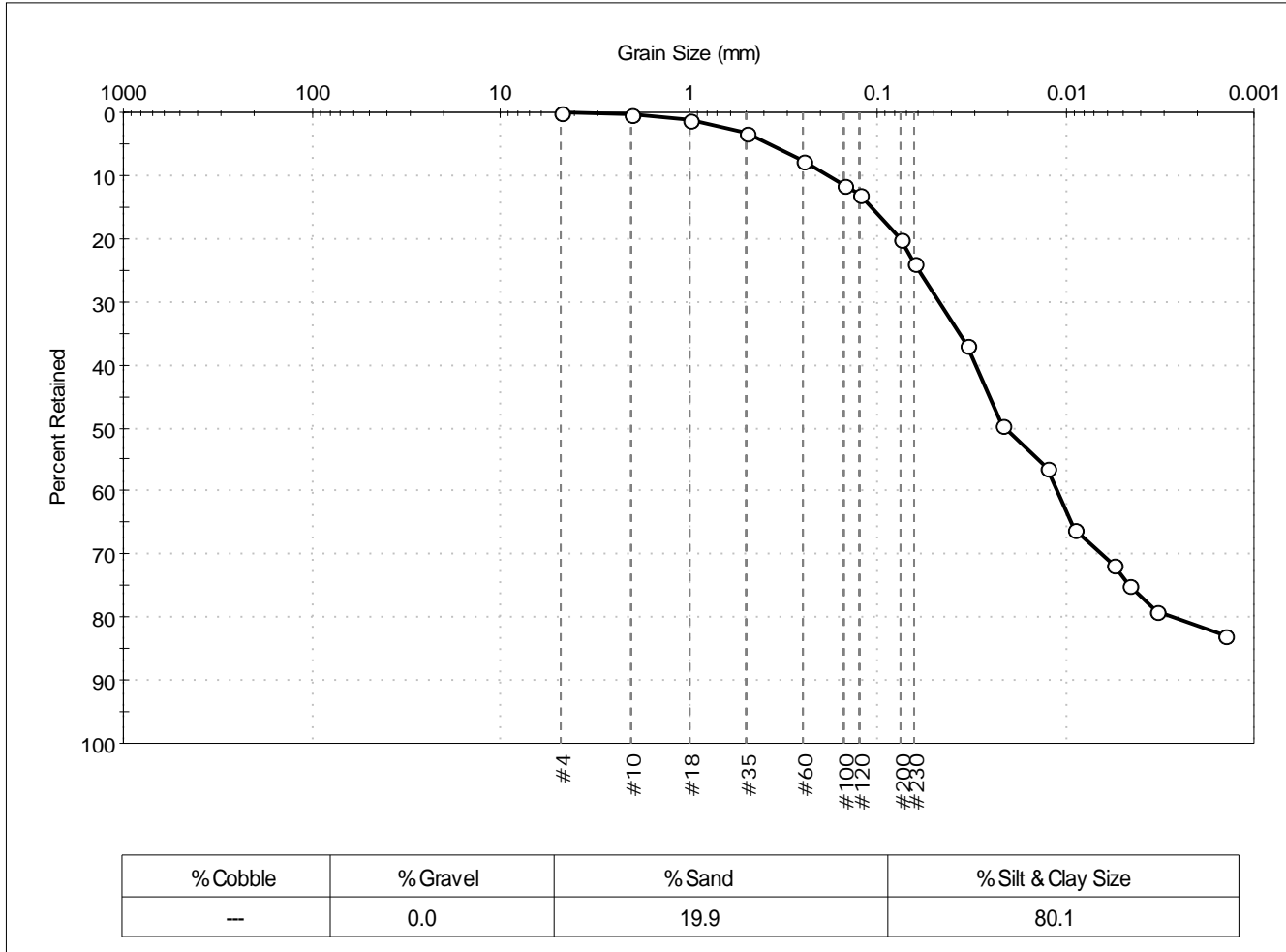
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	340-14LTM	Sample Type:	bag
Sample ID:	NBH14-0087	Test Date:	10/08/14
Depth:	---	Test Id:	309521
Test Comment:	---		
Sample Description:	Moist, greenish gray silt wih sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	8		
#100	0.15	12		
#120	0.12	13		
#200	0.075	20		
#230	0.063	24		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0335	37		
---	0.0216	49		
---	0.0125	56		
---	0.0090	66		
---	0.0056	72		
---	0.0046	75		
---	0.0033	79		
---	0.0014	83		

<u>Coefficients</u>	
D ₈₅ = 0.1075 mm	D ₃₀ = 0.0065 mm
D ₆₀ = 0.0300 mm	D ₁₅ = N/A
D ₅₀ = 0.0206 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

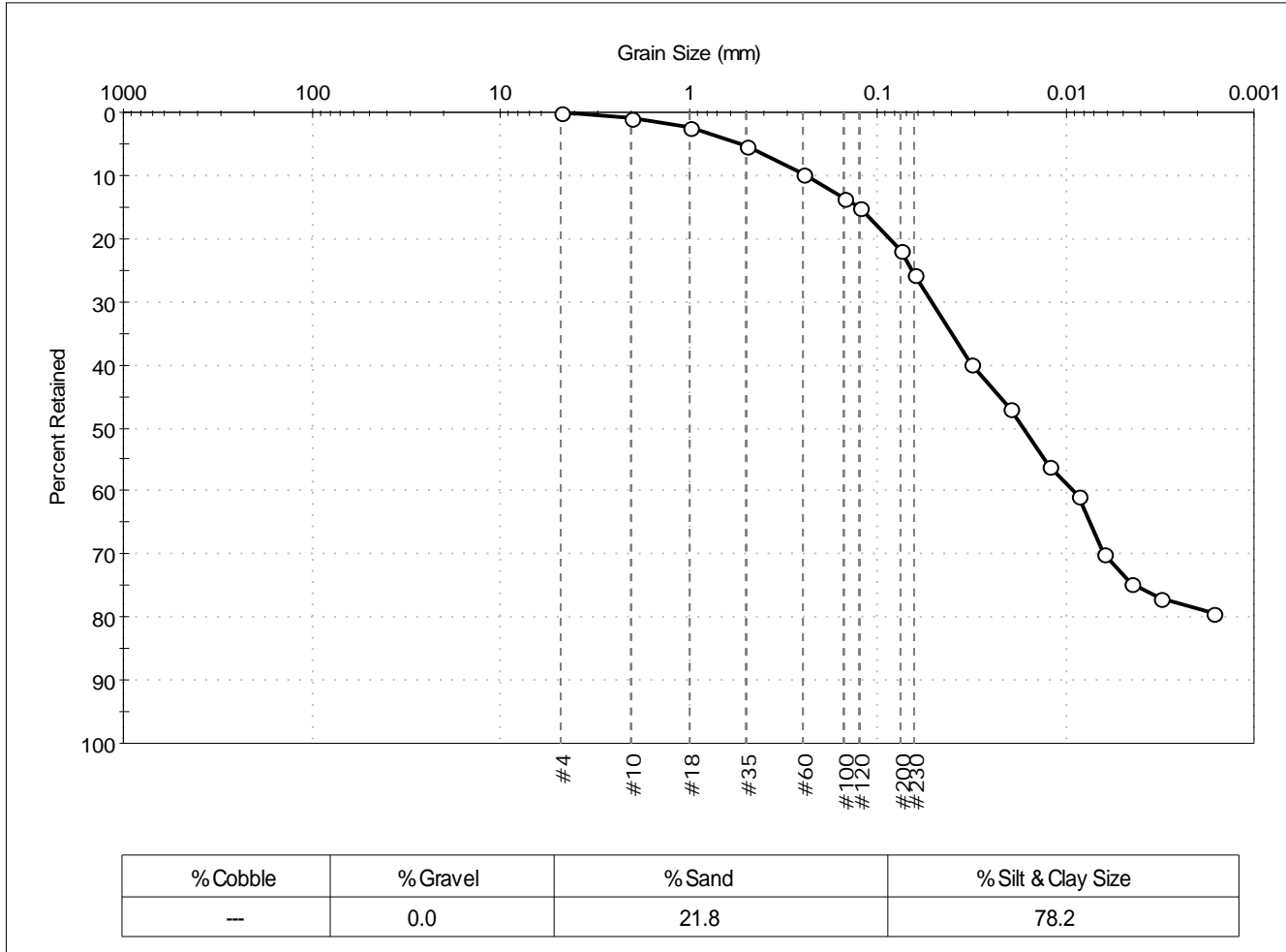
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	340-14LTM	Sample Type:	bag
Sample ID:	NBH14-0088	Test Date:	10/08/14
Depth:	---	Test Id:	309522
Test Comment:	---		
Sample Description:	Moist, greenish gray silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	5		
#60	0.25	10		
#100	0.15	14		
#120	0.12	15		
#200	0.075	22		
#230	0.063	26		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	40		
---	0.0199	47		
---	0.0121	56		
---	0.0086	61		
---	0.0062	70		
---	0.0045	75		
---	0.0032	77		
---	0.0016	79		

<u>Coefficients</u>	
D ₈₅ = 0.1244 mm	D ₃₀ = 0.0062 mm
D ₆₀ = 0.0318 mm	D ₁₅ = N/A
D ₅₀ = 0.0168 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

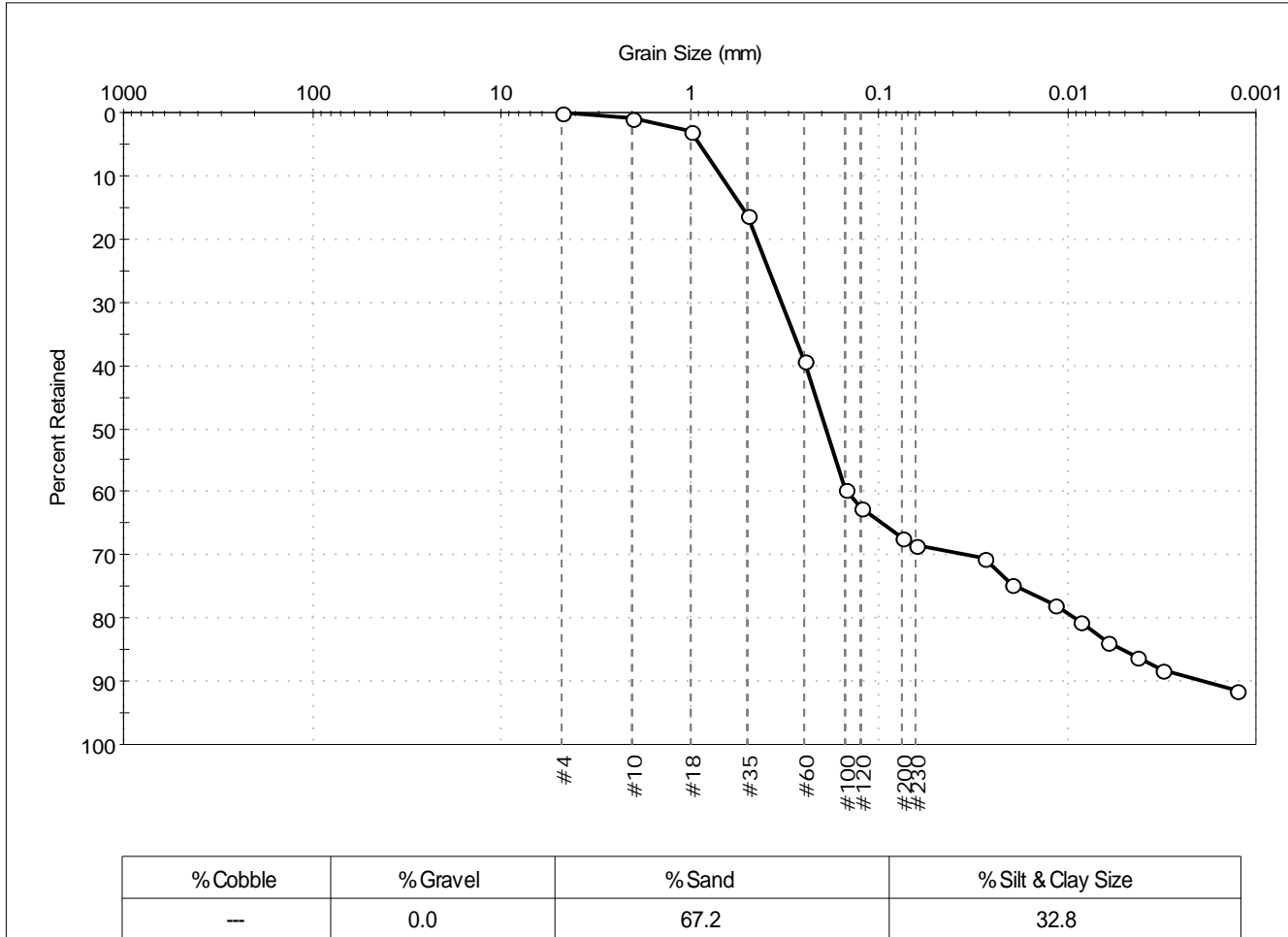
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 341-14LTM	Sample Type: bag
Sample ID: NBH14-0089	Test Date: 10/08/14
Depth: ---	Test Id: 309523
Test Comment: ---	Tested By: jbr
Sample Description: Wet, greenish gray silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	16		
#60	0.25	39		
#100	0.15	60		
#120	0.12	63		
#200	0.075	67		
#230	0.063	69		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0278	70		
---	0.0199	75		
---	0.0117	78		
---	0.0085	81		
---	0.0061	84		
---	0.0043	86		
---	0.0031	88		
---	0.0013	91		

<u>Coefficients</u>	
D ₈₅ = 0.5319 mm	D ₃₀ = 0.0327 mm
D ₆₀ = 0.2452 mm	D ₁₅ = 0.0051 mm
D ₅₀ = 0.1907 mm	D ₁₀ = 0.0019 mm
C _u = 129.053	C _c = 2.295

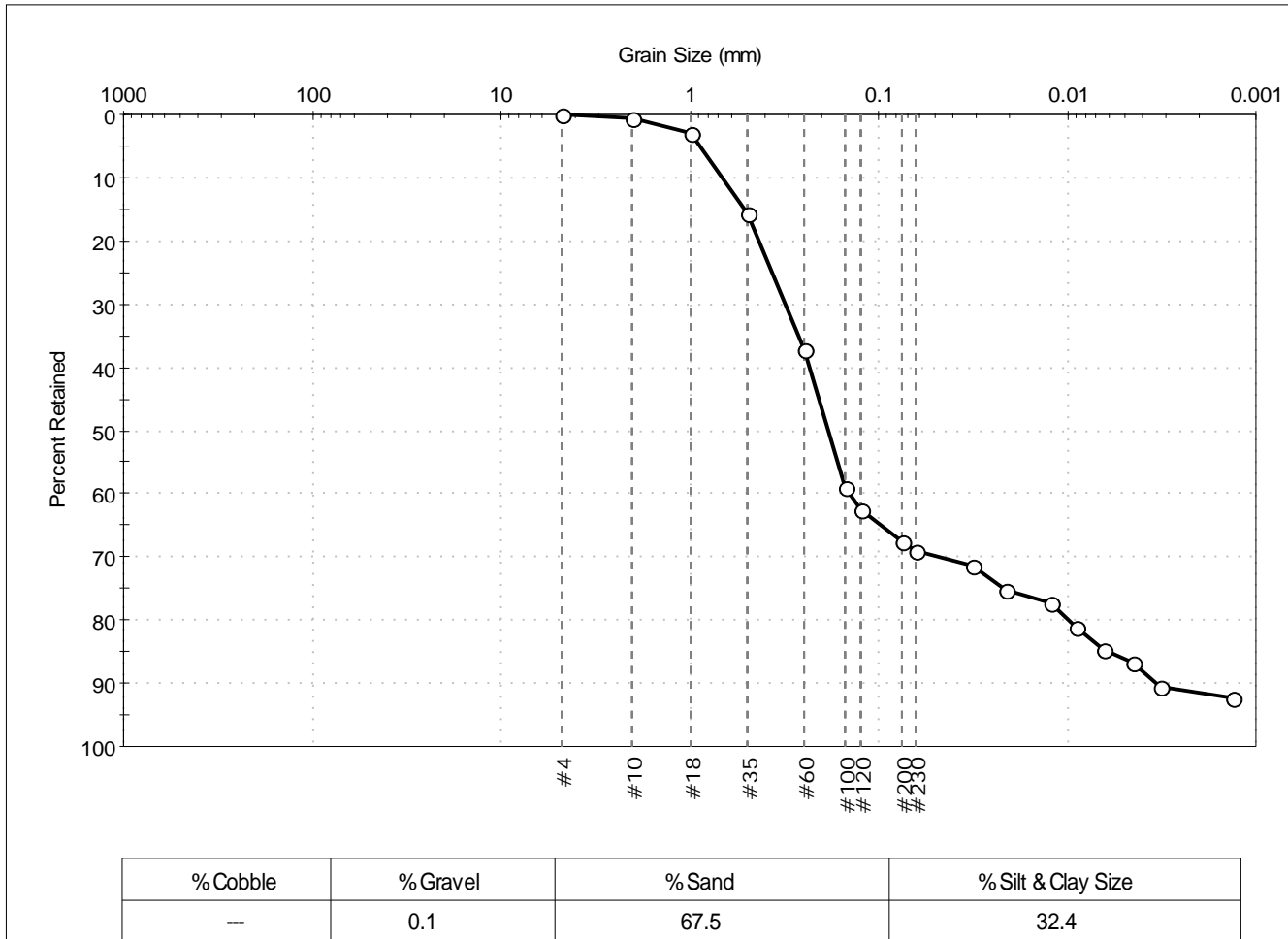
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	341-14LTM	Sample Type:	bag
Sample ID:	NBH14-0090	Test Date:	10/23/14
Depth:	---	Test Id:	309524
Test Comment:	---		
Sample Description:	Moist, greenish gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	15		
#60	0.25	37		
#100	0.15	59		
#120	0.12	63		
#200	0.075	68		
#230	0.063	69		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0318	71		
---	0.0210	75		
---	0.0122	77		
---	0.0089	81		
---	0.0064	85		
---	0.0045	87		
---	0.0032	90		
---	0.0013	92		

<u>Coefficients</u>	
D ₈₅ = 0.5140 mm	D ₃₀ = 0.0470 mm
D ₆₀ = 0.2343 mm	D ₁₅ = 0.0061 mm
D ₅₀ = 0.1852 mm	D ₁₀ = 0.0034 mm
C _u = 68.912	C _c = 2.773

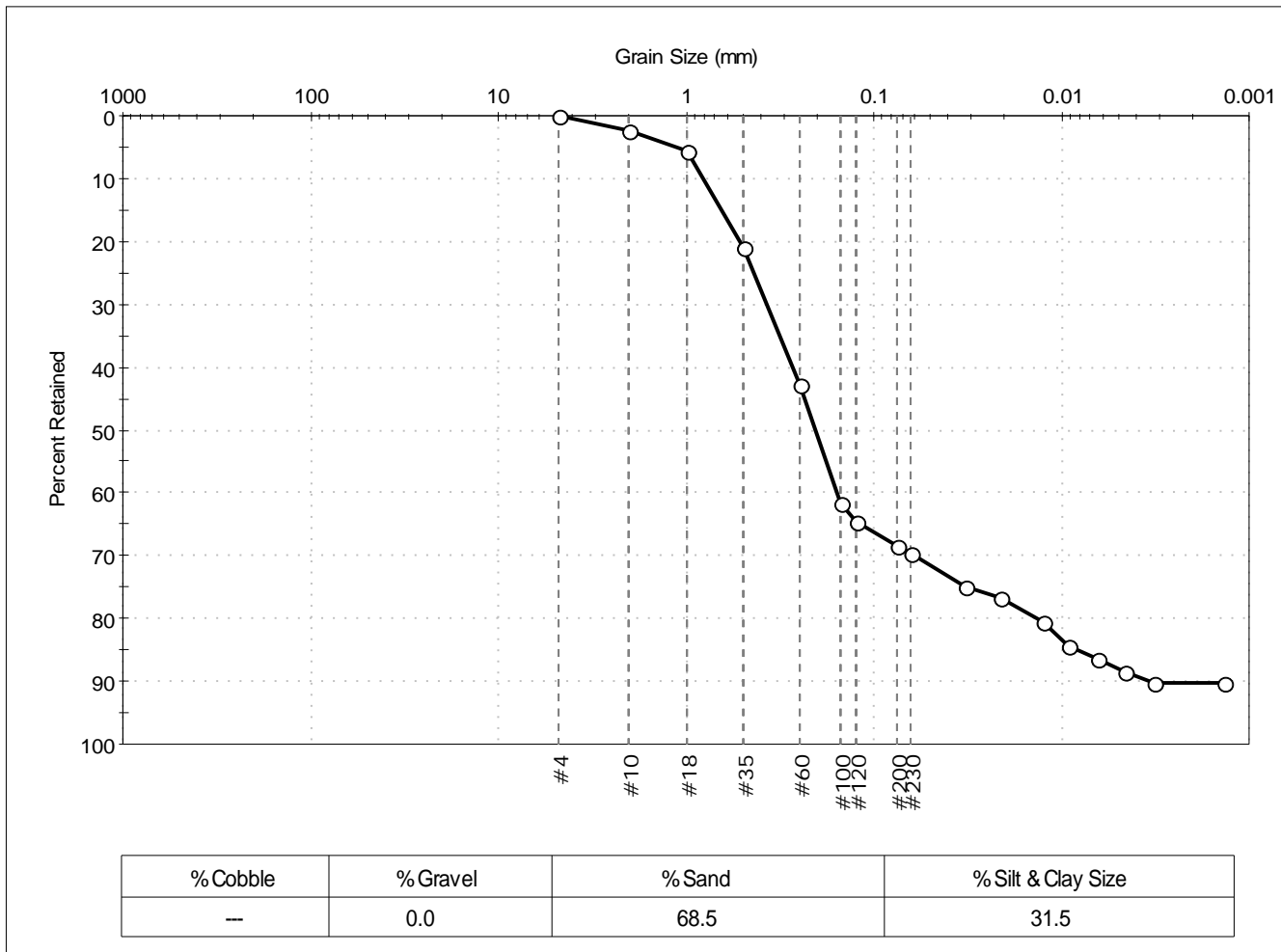
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	341-14LTM	Sample Type:	bag
Sample ID:	NBH14-0091	Test Date:	10/08/14
Depth:	---	Test Id:	309525
Test Comment:	---		
Sample Description:	Moist, dark gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	6		
#35	0.50	21		
#60	0.25	43		
#100	0.15	62		
#120	0.12	64		
#200	0.075	69		
#230	0.063	70		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	75		
---	0.0210	77		
---	0.0127	81		
---	0.0091	85		
---	0.0064	86		
---	0.0046	88		
---	0.0033	90		
---	0.0014	90		

<u>Coefficients</u>	
D ₈₅ = 0.6547 mm	D ₃₀ = 0.0598 mm
D ₆₀ = 0.2739 mm	D ₁₅ = 0.0084 mm
D ₅₀ = 0.2059 mm	D ₁₀ = 0.0034 mm
C _u = 80.559	C _c = 3.840

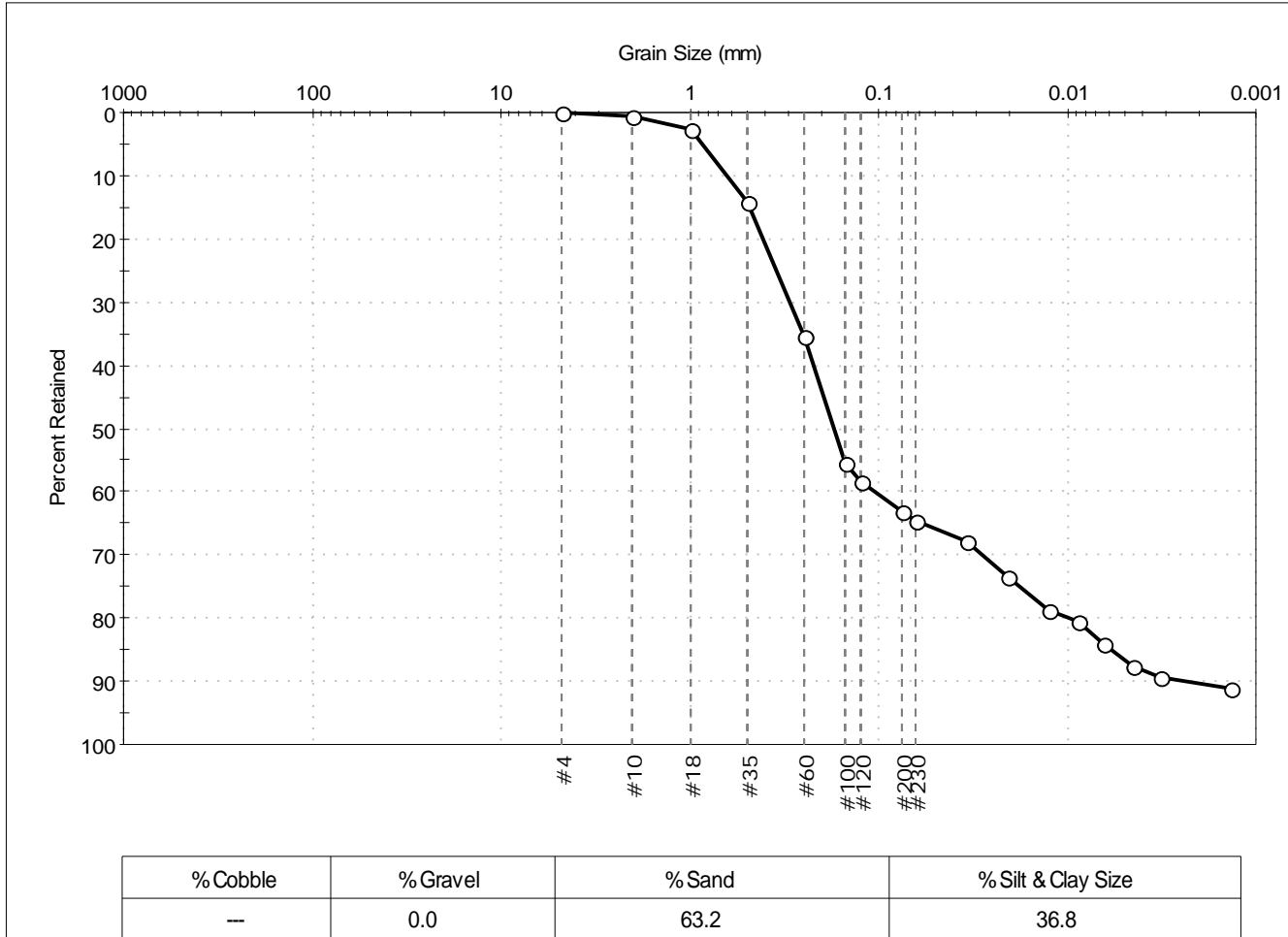
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 341-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0092	Test Date: 10/08/14	Test Id: 309526	
Depth: ---			
Test Comment: ---			
Sample Description: Moist, dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	14		
#60	0.25	35		
#100	0.15	55		
#120	0.12	58		
#200	0.075	63		
#230	0.063	65		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0343	68		
---	0.0208	73		
---	0.0125	79		
---	0.0088	80		
---	0.0064	84		
---	0.0045	88		
---	0.0032	89		
---	0.0014	91		

Coefficients	
D ₈₅ = 0.4882 mm	D ₃₀ = 0.0283 mm
D ₆₀ = 0.2220 mm	D ₁₅ = 0.0058 mm
D ₅₀ = 0.1724 mm	D ₁₀ = 0.0023 mm
C _u = 96.522	C _c = 1.569

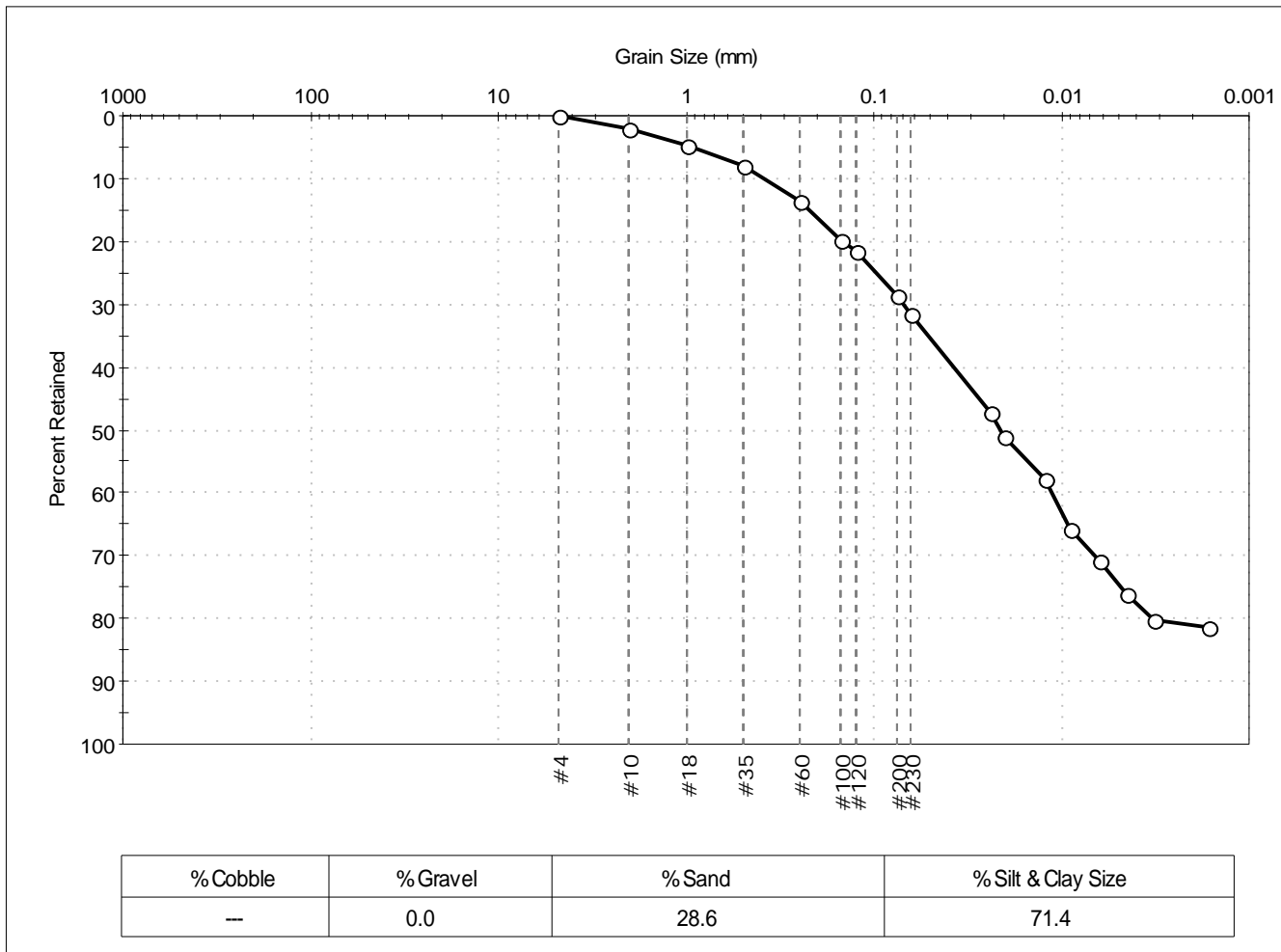
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	334-14LTM	Sample Type:	bag
Sample ID:	NBH14-0093	Test Date:	10/08/14
Depth:	---	Test Id:	309527
Test Comment:	---		
Sample Description:	Moist, dark gray silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	5		
#35	0.50	8		
#60	0.25	13		
#100	0.15	20		
#120	0.12	21		
#200	0.075	29		
#230	0.063	32		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0241	47		
---	0.0204	51		
---	0.0123	58		
---	0.0089	66		
---	0.0063	71		
---	0.0045	76		
---	0.0032	80		
---	0.0016	82		

<u>Coefficients</u>	
D ₈₅ = 0.2211 mm	D ₃₀ = 0.0067 mm
D ₆₀ = 0.0376 mm	D ₁₅ = N/A
D ₅₀ = 0.0214 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

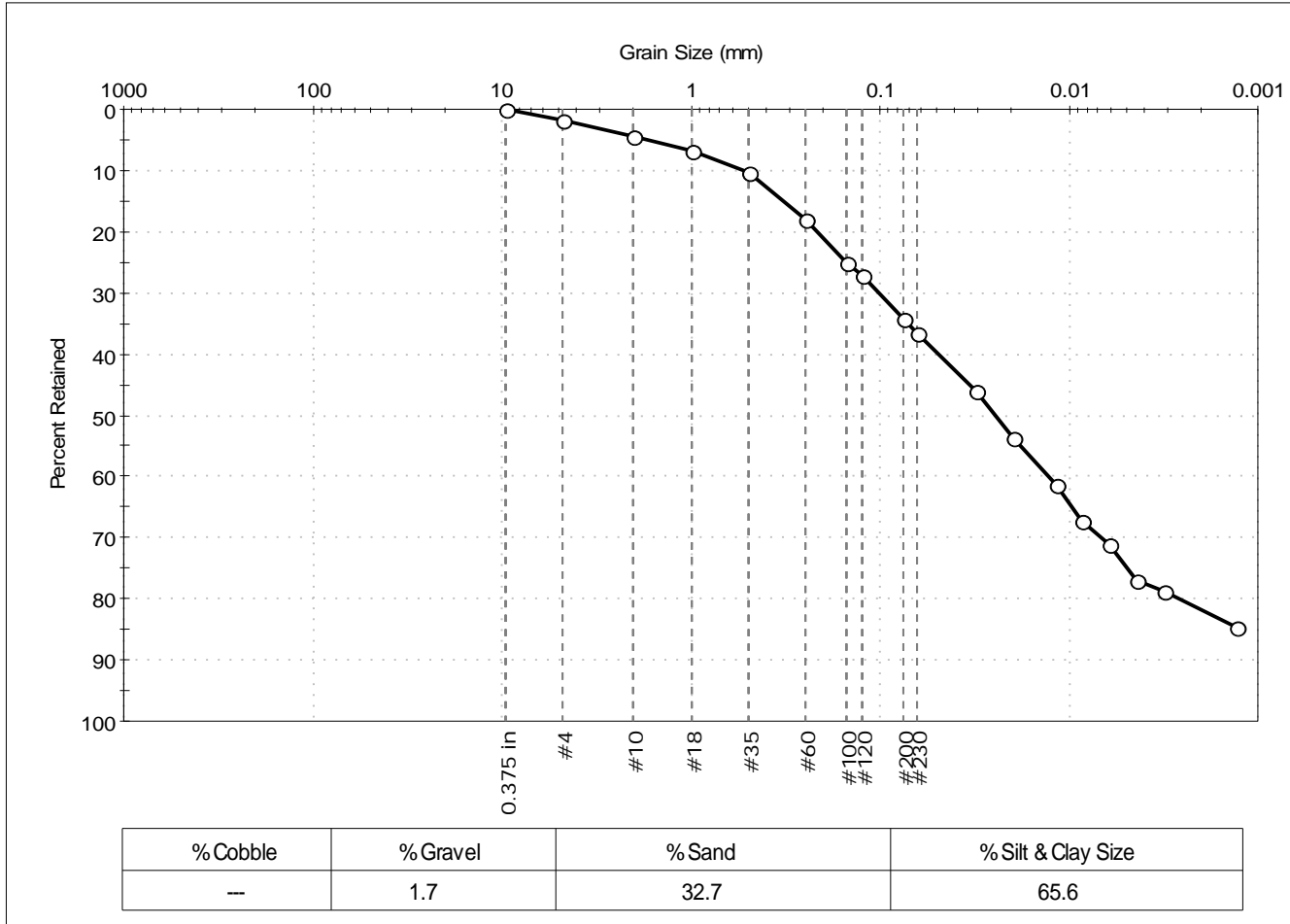
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 334-14LTM	Sample Type: bag
Sample ID: NBH14-0094	Test Date: 10/20/14
Depth: ---	Test Id: 309528
Test Comment: ---	Tested By: jbr
Sample Description: Moist, dark gray sandy silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	4		
#18	1.00	7		
#35	0.50	10		
#60	0.25	18		
#100	0.15	25		
#120	0.12	27		
#200	0.075	34		
#230	0.063	37		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0311	46		
---	0.0197	54		
---	0.0116	61		
---	0.0085	67		
---	0.0061	71		
---	0.0044	77		
---	0.0031	79		
---	0.0013	85		

<u>Coefficients</u>	
D ₈₅ = 0.3247 mm	D ₃₀ = 0.0067 mm
D ₆₀ = 0.0489 mm	D ₁₅ = N/A
D ₅₀ = 0.0245 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

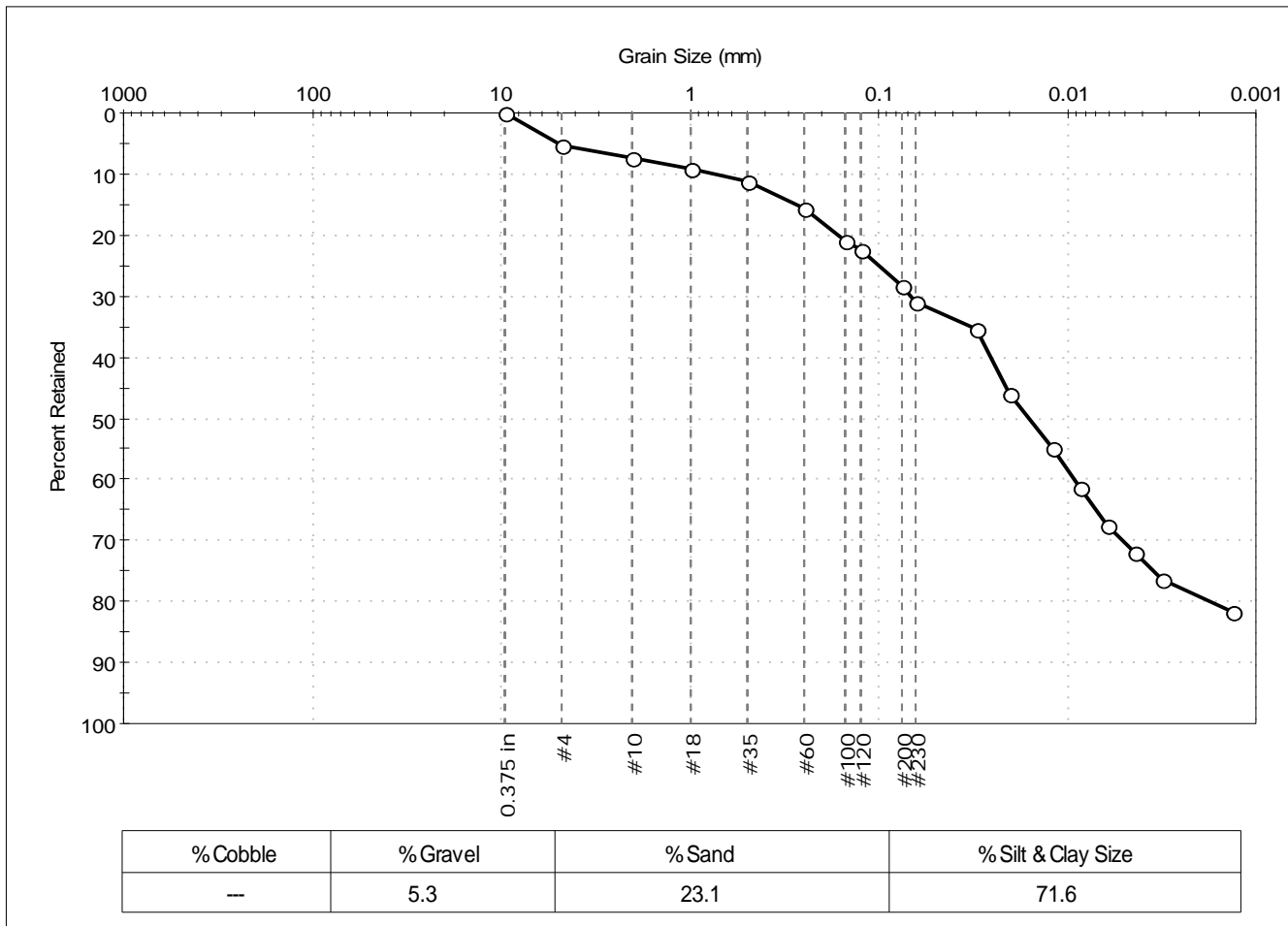
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 334-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0095	Test Date: 10/08/14	Checked By: jdt	
Depth: ---	Test Id: 309529		
Test Comment: ---			
Sample Description: Moist, dark gray silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	5		
#10	2.00	7		
#18	1.00	9		
#35	0.50	11		
#60	0.25	16		
#100	0.15	21		
#120	0.12	22		
#200	0.075	28		
#230	0.063	31		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0304	35		
---	0.0200	46		
---	0.0119	55		
---	0.0086	61		
---	0.0062	68		
---	0.0044	72		
---	0.0031	76		
---	0.0013	82		

<u>Coefficients</u>	
D ₈₅ = 0.2795 mm	D ₃₀ = 0.0051 mm
D ₆₀ = 0.0254 mm	D ₁₅ = N/A
D ₅₀ = 0.0158 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

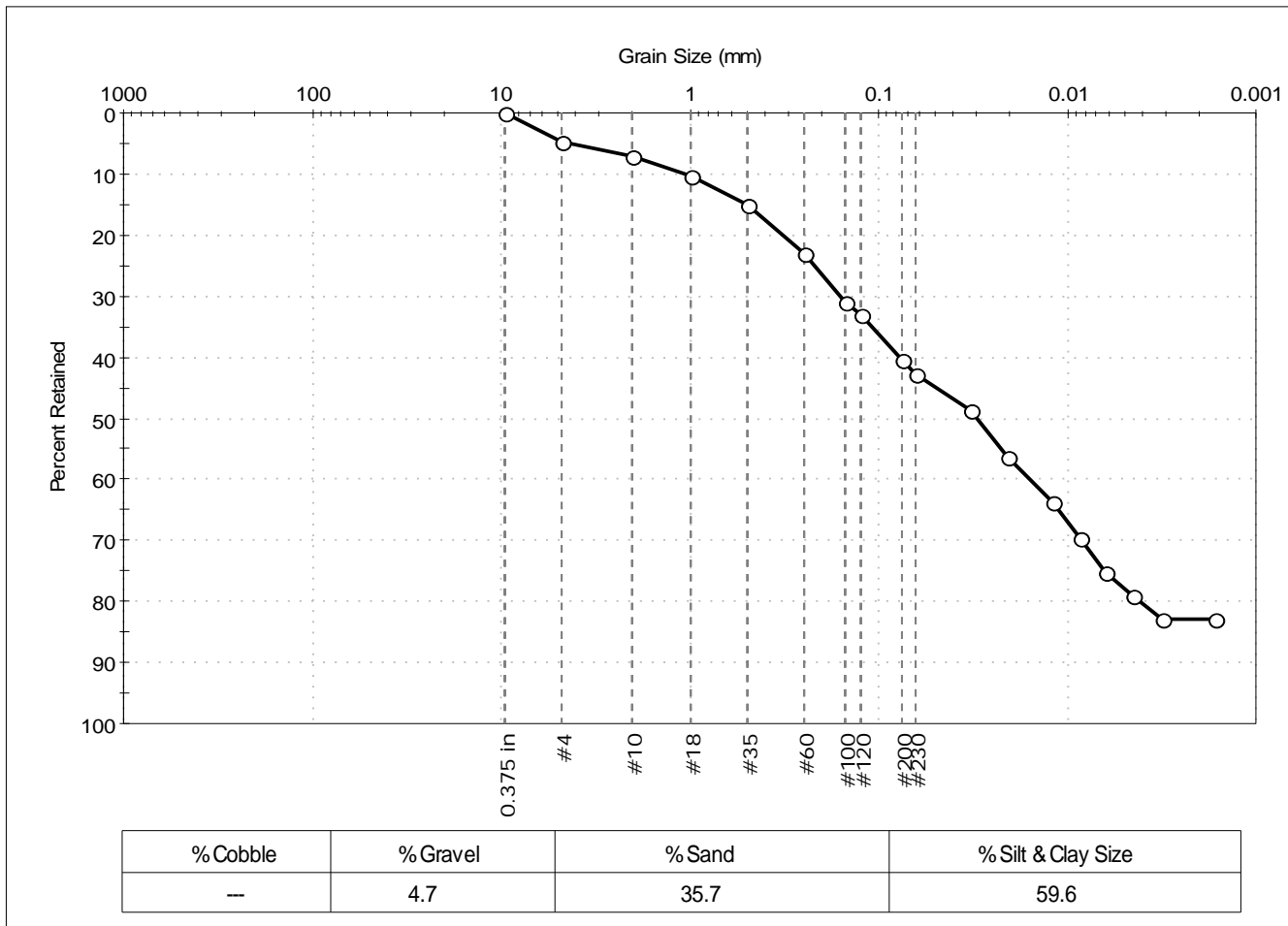
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 334-14LTM	Sample Type: bag
Sample ID: NBH14-0096	Test Date: 10/08/14
Depth: ---	Test Id: 309530
Test Comment: ---	Tested By: jbr
Sample Description: Moist, greenish gray sandy silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	5		
#10	2.00	7		
#18	1.00	10		
#35	0.50	15		
#60	0.25	23		
#100	0.15	31		
#120	0.12	33		
#200	0.075	40		
#230	0.063	43		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	49		
---	0.0205	56		
---	0.0121	64		
---	0.0086	70		
---	0.0063	75		
---	0.0045	79		
---	0.0032	83		
---	0.0016	83		

<u>Coefficients</u>	
D ₈₅ = 0.4995 mm	D ₃₀ = 0.0084 mm
D ₆₀ = 0.0770 mm	D ₁₅ = N/A
D ₅₀ = 0.0298 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

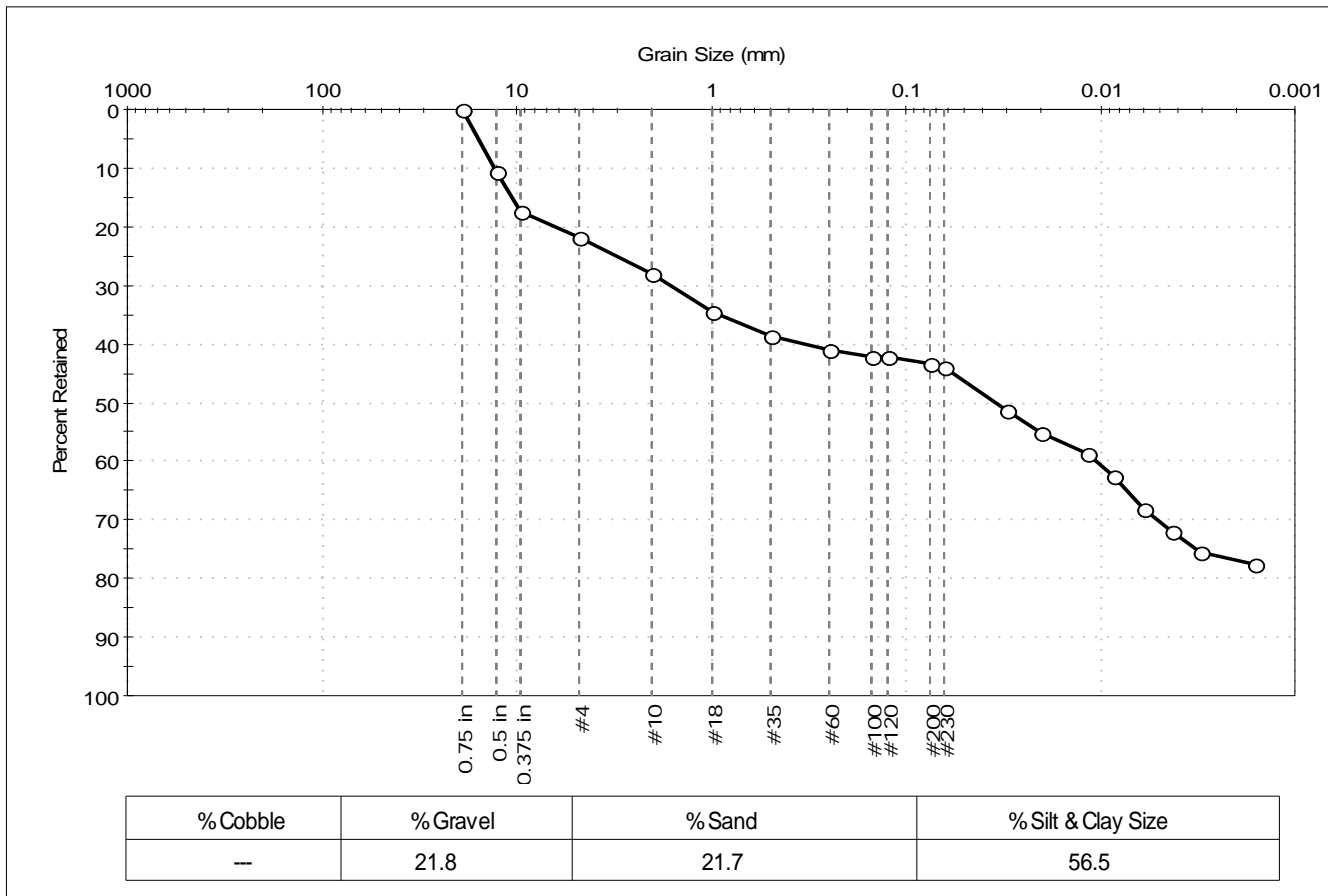
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 335-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0097	Test Date: 10/15/14	Test Id: 309531	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray gravelly silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.70	11		
0.375 in	9.50	17		
#4	4.75	22		
#10	2.00	28		
#18	1.00	35		
#35	0.50	39		
#60	0.25	41		
#100	0.15	42		
#120	0.12	42		
#200	0.075	43		
#230	0.063	44		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0304	51		
---	0.0204	55		
---	0.0117	59		
---	0.0085	63		
---	0.0060	68		
---	0.0043	72		
---	0.0031	76		
---	0.0016	78		

Coefficients

D ₈₅ = 10.5255 mm	D ₃₀ = 0.0051 mm
D ₆₀ = 0.3268 mm	D ₁₅ = N/A
D ₅₀ = 0.0345 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

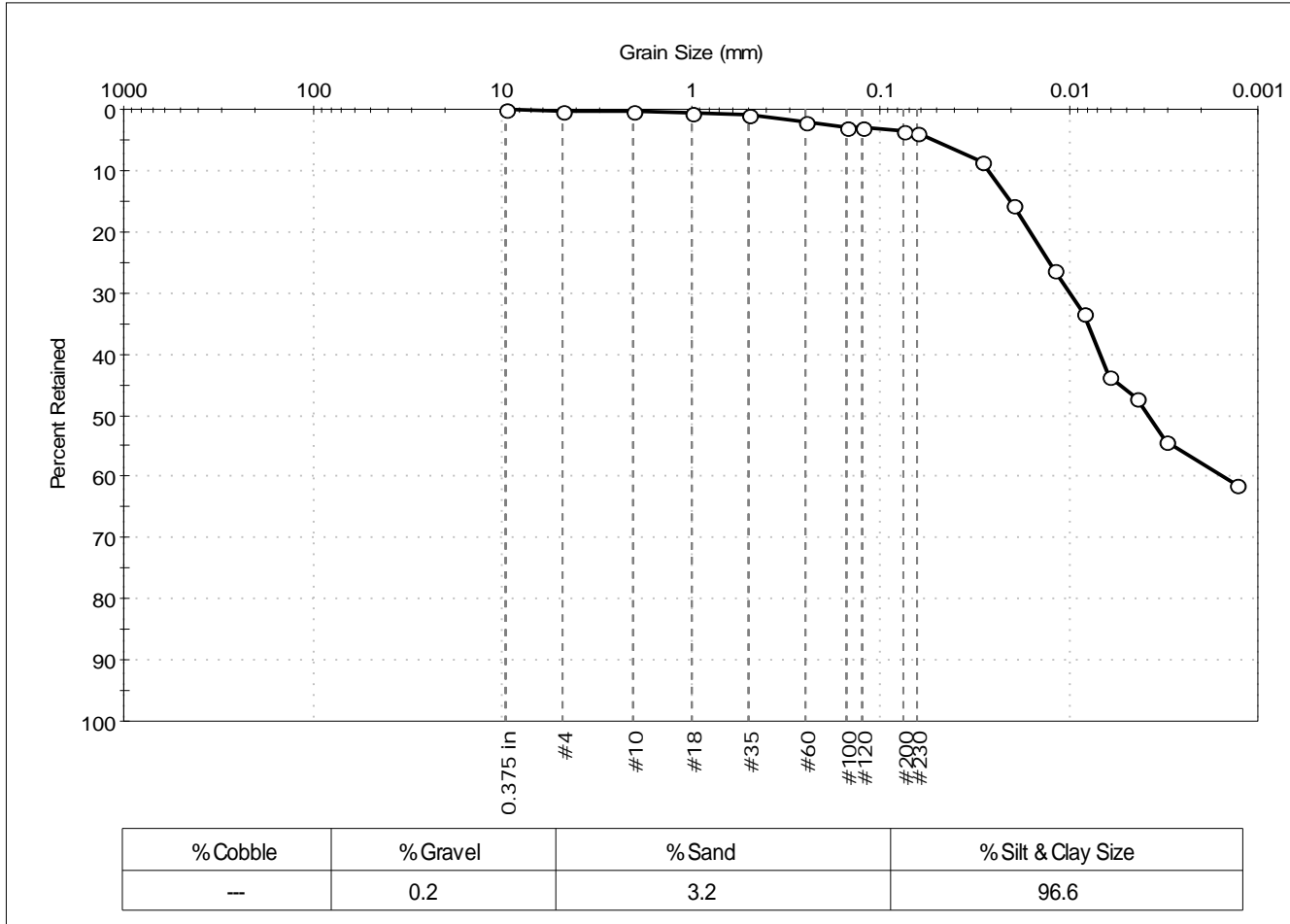
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 335-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0098	Test Date: 10/08/14	Test Id: 309532	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	2		
#100	0.15	3		
#120	0.12	3		
#200	0.075	3		
#230	0.063	4		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0288	9		
---	0.0199	16		
---	0.0119	26		
---	0.0083	33		
---	0.0061	44		
---	0.0044	47		
---	0.0031	54		
---	0.0013	61		

<u>Coefficients</u>	
D ₈₅ = 0.0206 mm	D ₃₀ = N/A
D ₆₀ = 0.0068 mm	D ₁₅ = N/A
D ₅₀ = 0.0038 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

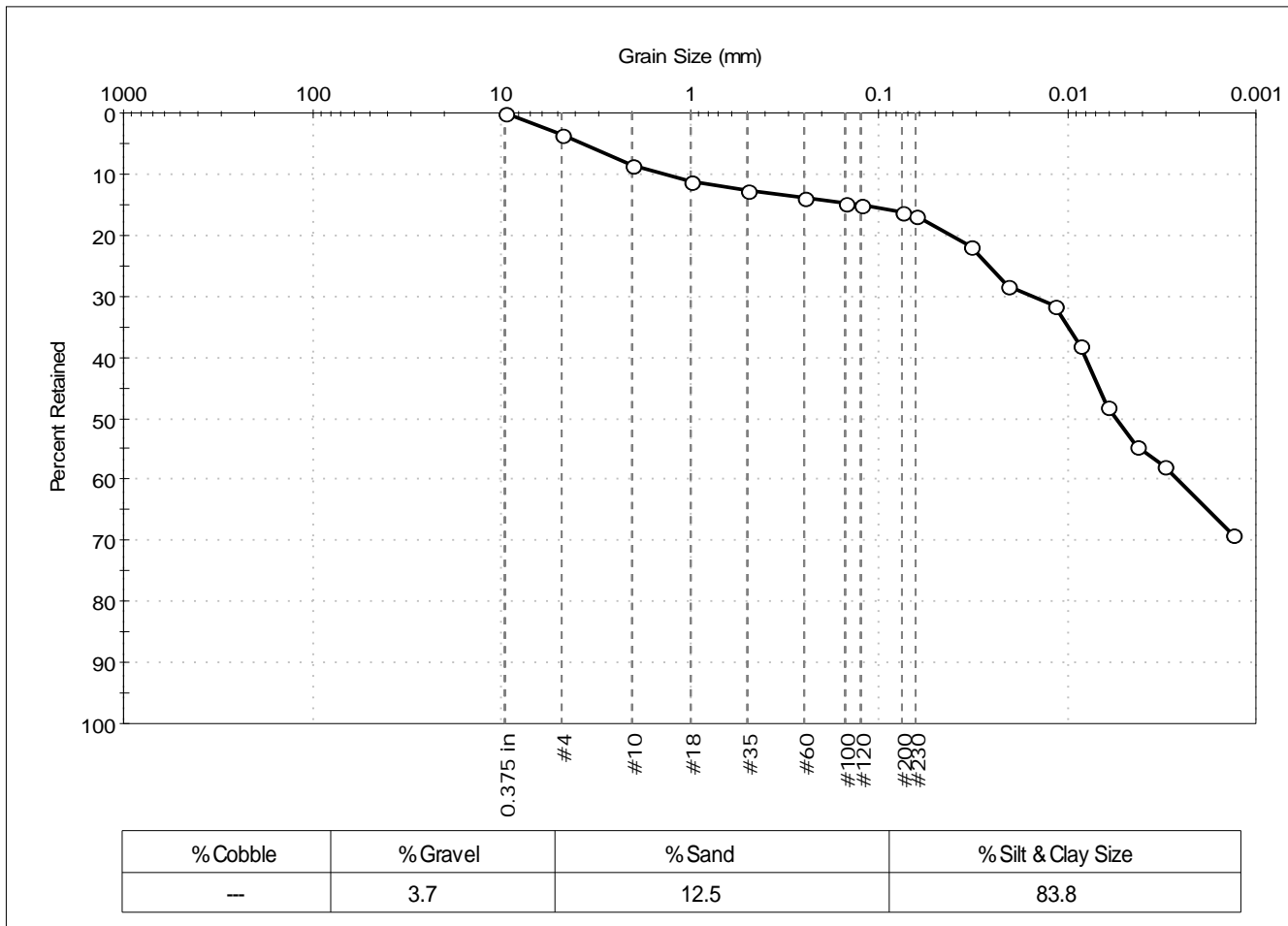
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	335-14LTM	Sample Type:	bag
Sample ID:	NBH14-0099	Test Date:	10/08/14
Depth:	---	Test Id:	309533
Test Comment:	---		
Sample Description:	Wet, dark gray silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	4		
#10	2.00	8		
#18	1.00	11		
#35	0.50	13		
#60	0.25	14		
#100	0.15	15		
#120	0.12	15		
#200	0.075	16		
#230	0.063	17		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	22		
---	0.0206	28		
---	0.0118	32		
---	0.0085	38		
---	0.0061	48		
---	0.0043	54		
---	0.0031	58		
---	0.0013	69		

<u>Coefficients</u>	
D ₈₅ = 0.1203 mm	D ₃₀ = N/A
D ₆₀ = 0.0080 mm	D ₁₅ = N/A
D ₅₀ = 0.0055 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

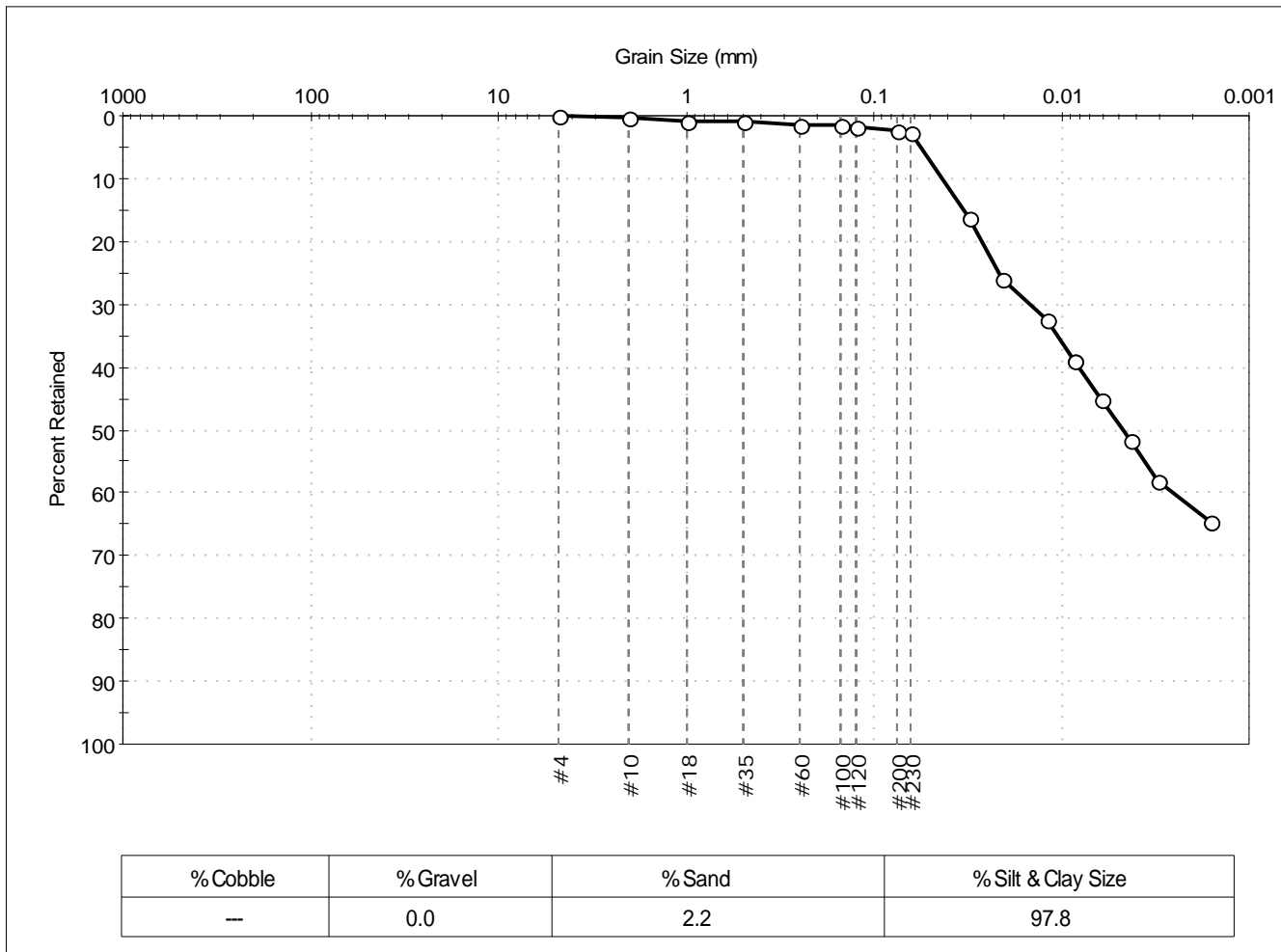
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 335-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0100	Test Date: 10/08/14	Test Id: 309534	
Depth: ---	Test Comment: ---	Sample Description: Moist, greenish gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	2		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0314	16		
---	0.0206	26		
---	0.0120	32		
---	0.0085	39		
---	0.0061	45		
---	0.0043	52		
---	0.0031	58		
---	0.0016	65		

<u>Coefficients</u>	
D ₈₅ = 0.0335 mm	D ₃₀ = N/A
D ₆₀ = 0.0080 mm	D ₁₅ = N/A
D ₅₀ = 0.0047 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

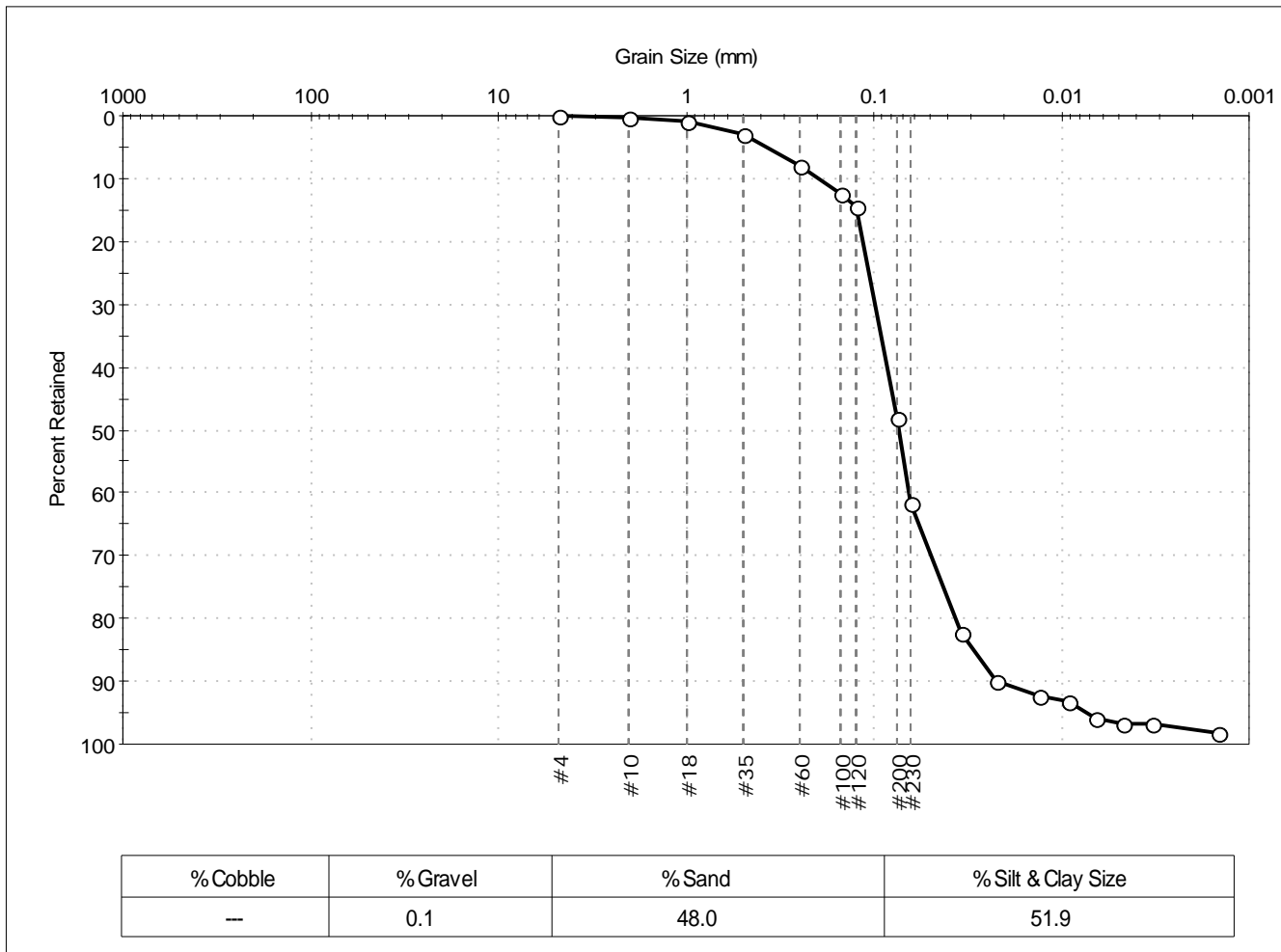
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 349-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0101	Test Date: 11/06/14	Test Id: 310090	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive gray sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	8		
#100	0.15	12		
#120	0.12	15		
#200	0.075	48		
#230	0.063	62		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	82		
---	0.0224	90		
---	0.0131	92		
---	0.0093	93		
---	0.0066	96		
---	0.0047	97		
---	0.0033	97		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 0.1241 mm	D ₃₀ = 0.0493 mm
D ₆₀ = 0.0848 mm	D ₁₅ = 0.0297 mm
D ₅₀ = 0.0731 mm	D ₁₀ = 0.0222 mm
C _u = 3.820	C _c = 1.291

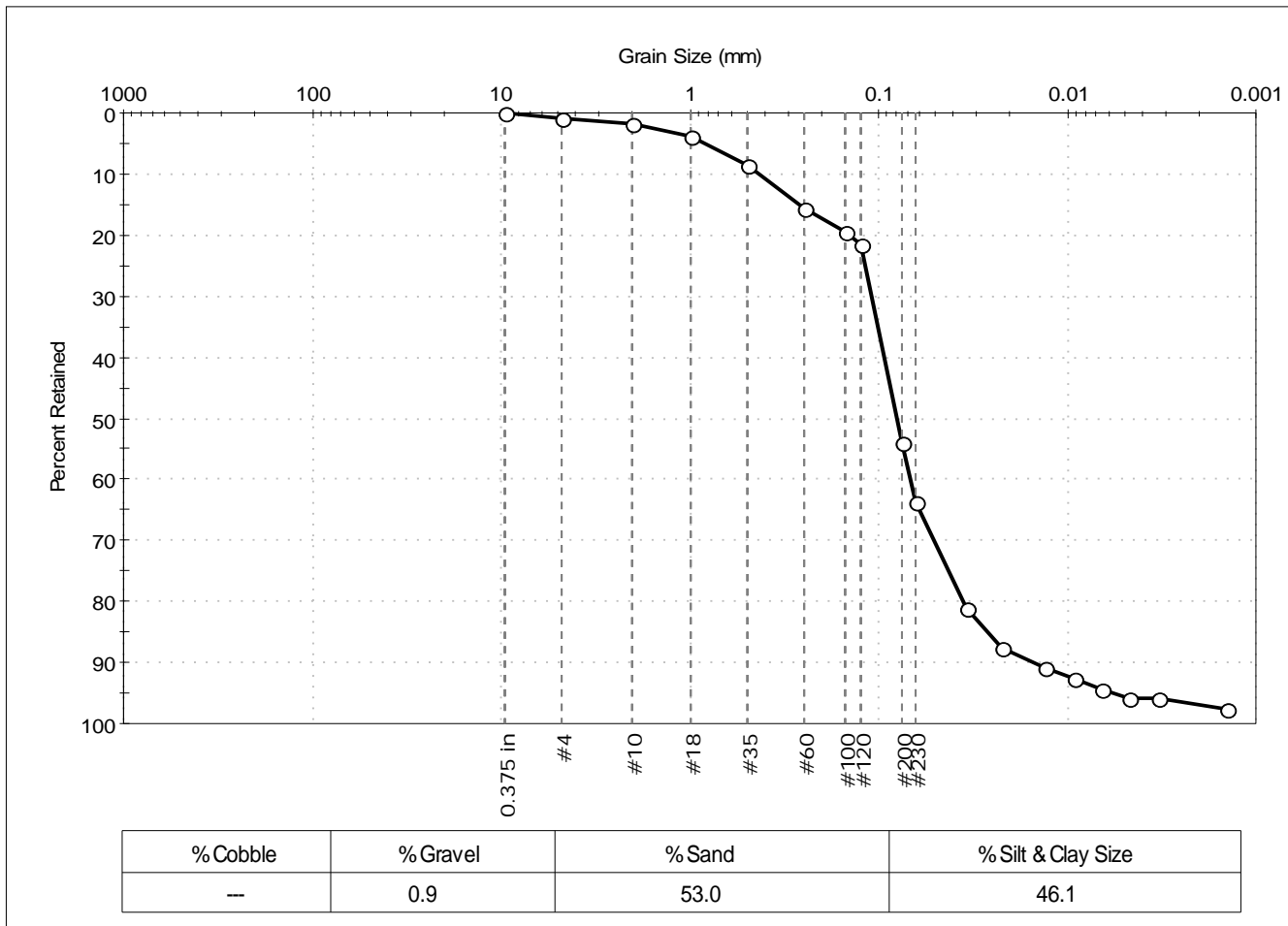
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 349-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0102	Test Date: 11/06/14	Test Id: 310091	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	4		
#35	0.50	9		
#60	0.25	16		
#100	0.15	19		
#120	0.12	21		
#200	0.075	54		
#230	0.063	64		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	81		
---	0.0222	88		
---	0.0130	91		
---	0.0093	93		
---	0.0066	94		
---	0.0047	96		
---	0.0033	96		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 0.2643 mm	D ₃₀ = 0.0505 mm
D ₆₀ = 0.0934 mm	D ₁₅ = 0.0267 mm
D ₅₀ = 0.0797 mm	D ₁₀ = 0.0153 mm
C _u = 6.105	C _c = 1.785

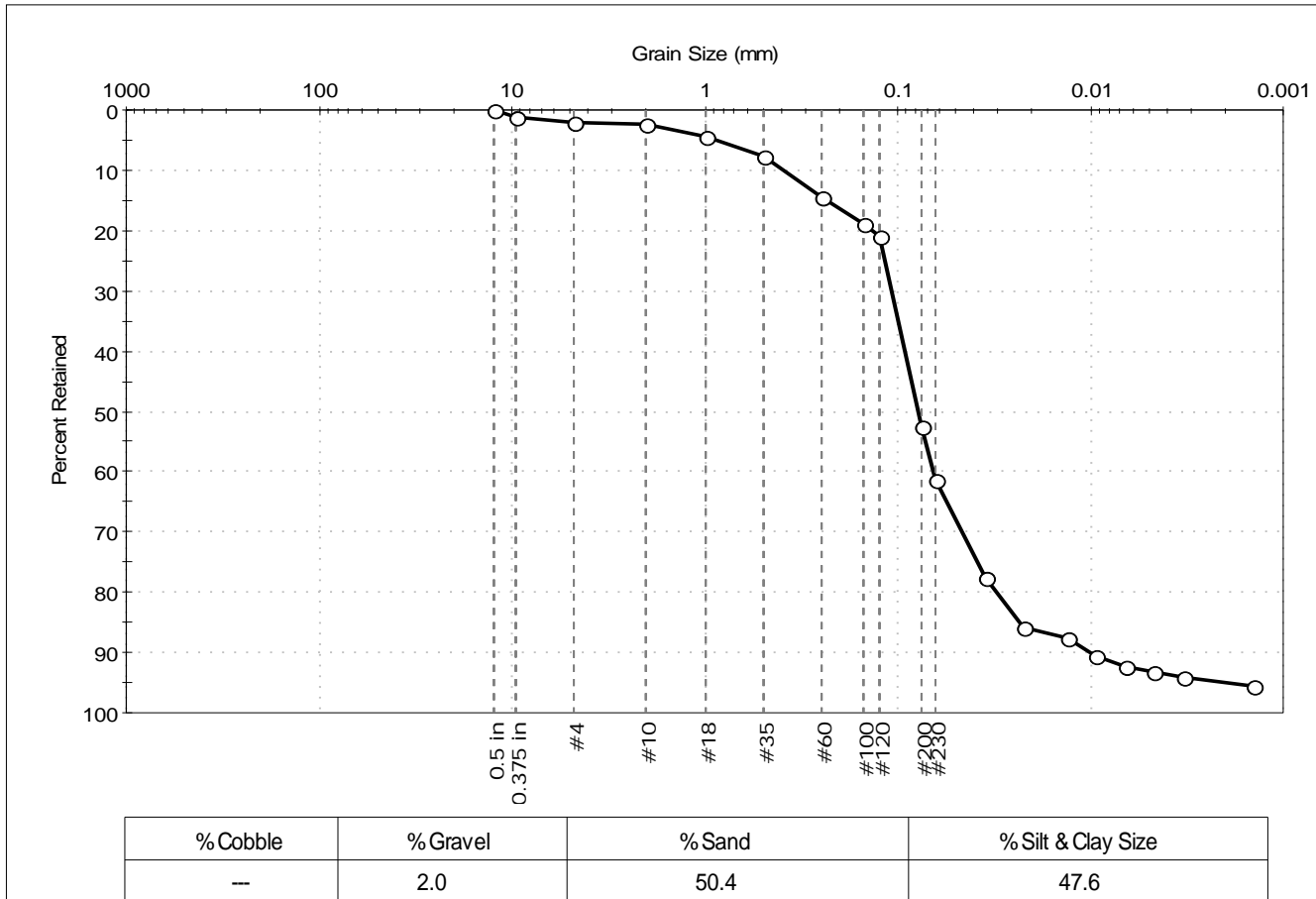
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 349-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0103	Test Date: 11/18/14	Test Id: 310092	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	2		
#10	2.00	2		
#18	1.00	4		
#35	0.50	8		
#60	0.25	14		
#100	0.15	19		
#120	0.12	21		
#200	0.075	52		
#230	0.063	61		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0347	78		
---	0.0225	86		
---	0.0131	88		
---	0.0093	90		
---	0.0066	92		
---	0.0047	93		
---	0.0033	94		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.2349 mm	D ₃₀ = 0.0458 mm
D ₆₀ = 0.0917 mm	D ₁₅ = 0.0235 mm
D ₅₀ = 0.0780 mm	D ₁₀ = 0.0099 mm
C _u = 9.263	C _c = 2.311

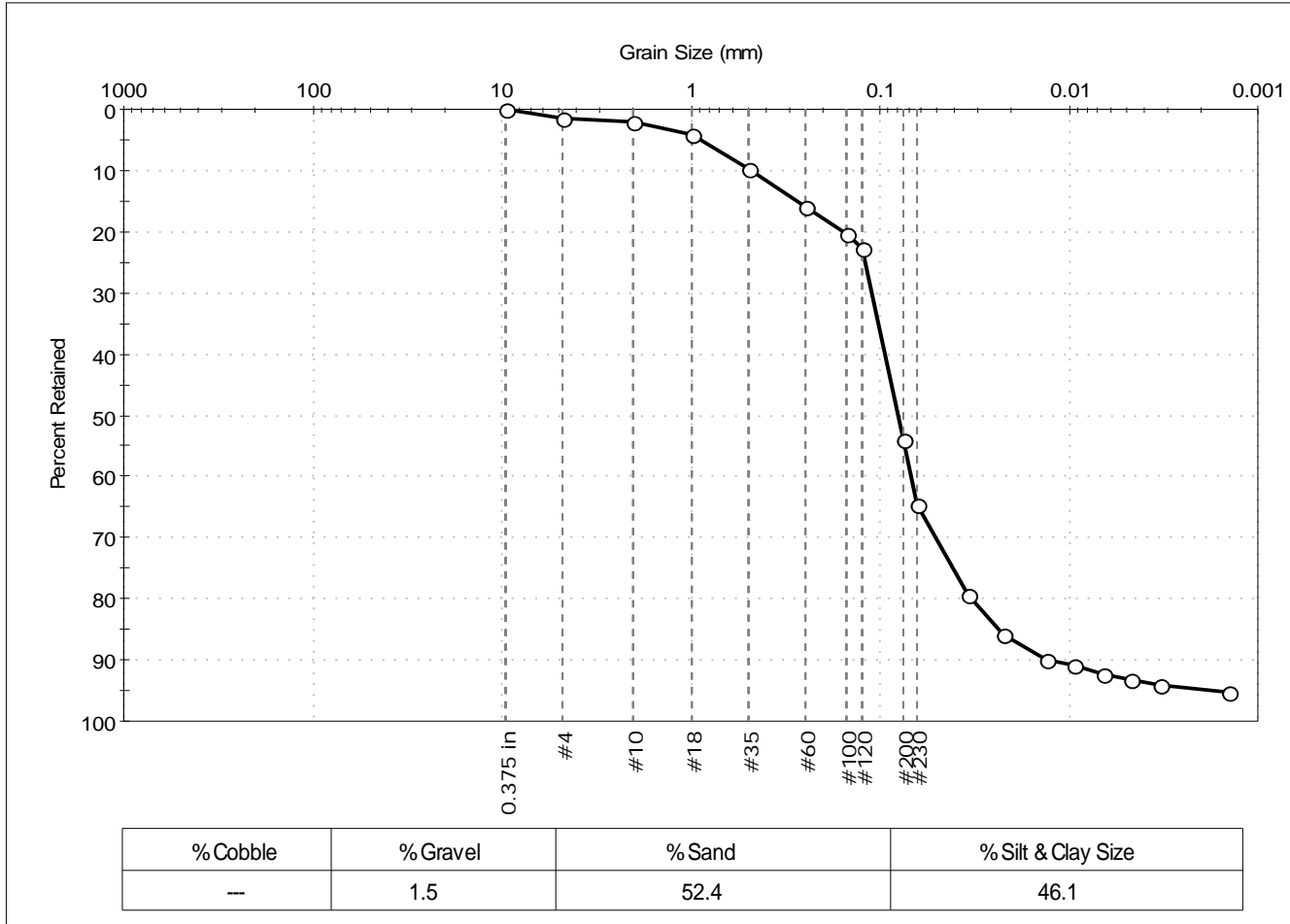
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	349-14LTM	Sample Type:	bag
Sample ID:	NBH14-0104	Test Date:	11/18/14
Depth:	---	Test Id:	310093
Test Comment:	---		
Sample Description:	Moist, olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	4		
#35	0.50	10		
#60	0.25	16		
#100	0.15	20		
#120	0.12	23		
#200	0.075	54		
#230	0.063	65		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	79		
---	0.0224	86		
---	0.0131	90		
---	0.0093	91		
---	0.0066	92		
---	0.0047	93		
---	0.0033	94		
---	0.0014	95		

<u>Coefficients</u>	
D ₈₅ = 0.2786 mm	D ₃₀ = 0.0506 mm
D ₆₀ = 0.0941 mm	D ₁₅ = 0.0237 mm
D ₅₀ = 0.0799 mm	D ₁₀ = 0.0128 mm
C _u = 7.352	C _c = 2.126

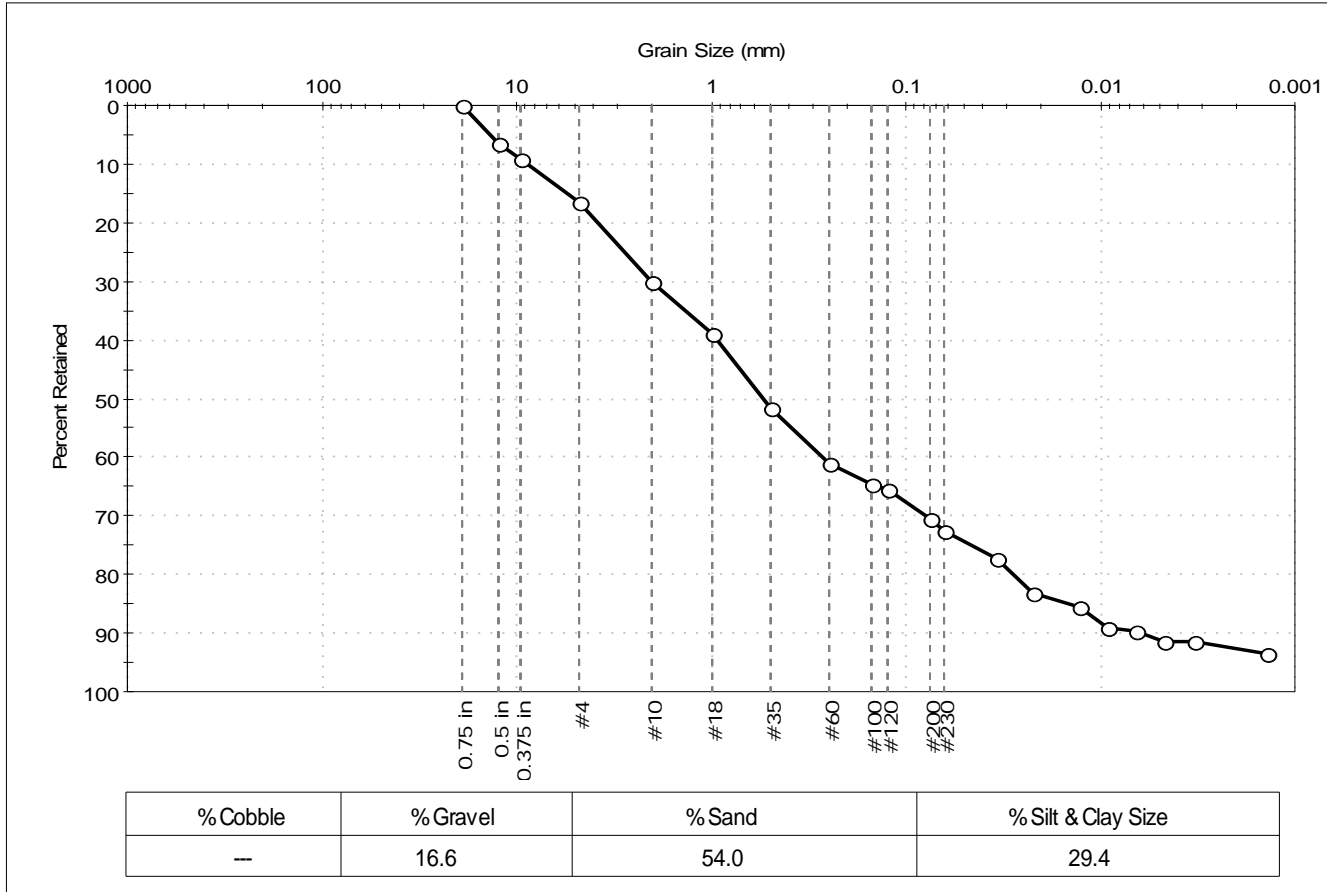
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 352-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0105	Test Date: 11/18/14	Checked By: jdt	
Depth: ---	Test Id: 310094		
Test Comment: ---			
Sample Description: Moist, dark olive gray silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	7		
0.375 in	9.50	9		
#4	4.75	17		
#10	2.00	30		
#18	1.00	39		
#35	0.50	52		
#60	0.25	61		
#100	0.15	65		
#120	0.12	66		
#200	0.075	71		
#230	0.063	73		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	77		
---	0.0222	83		
---	0.0129	86		
---	0.0093	89		
---	0.0066	90		
---	0.0047	91		
---	0.0033	91		
---	0.0014	94		

Coefficients

D ₈₅ = 5.4992 mm	D ₃₀ = 0.0797 mm
D ₆₀ = 0.9390 mm	D ₁₅ = 0.0149 mm
D ₅₀ = 0.5470 mm	D ₁₀ = 0.0063 mm
C _u = 149.048	C _c = 1.074

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

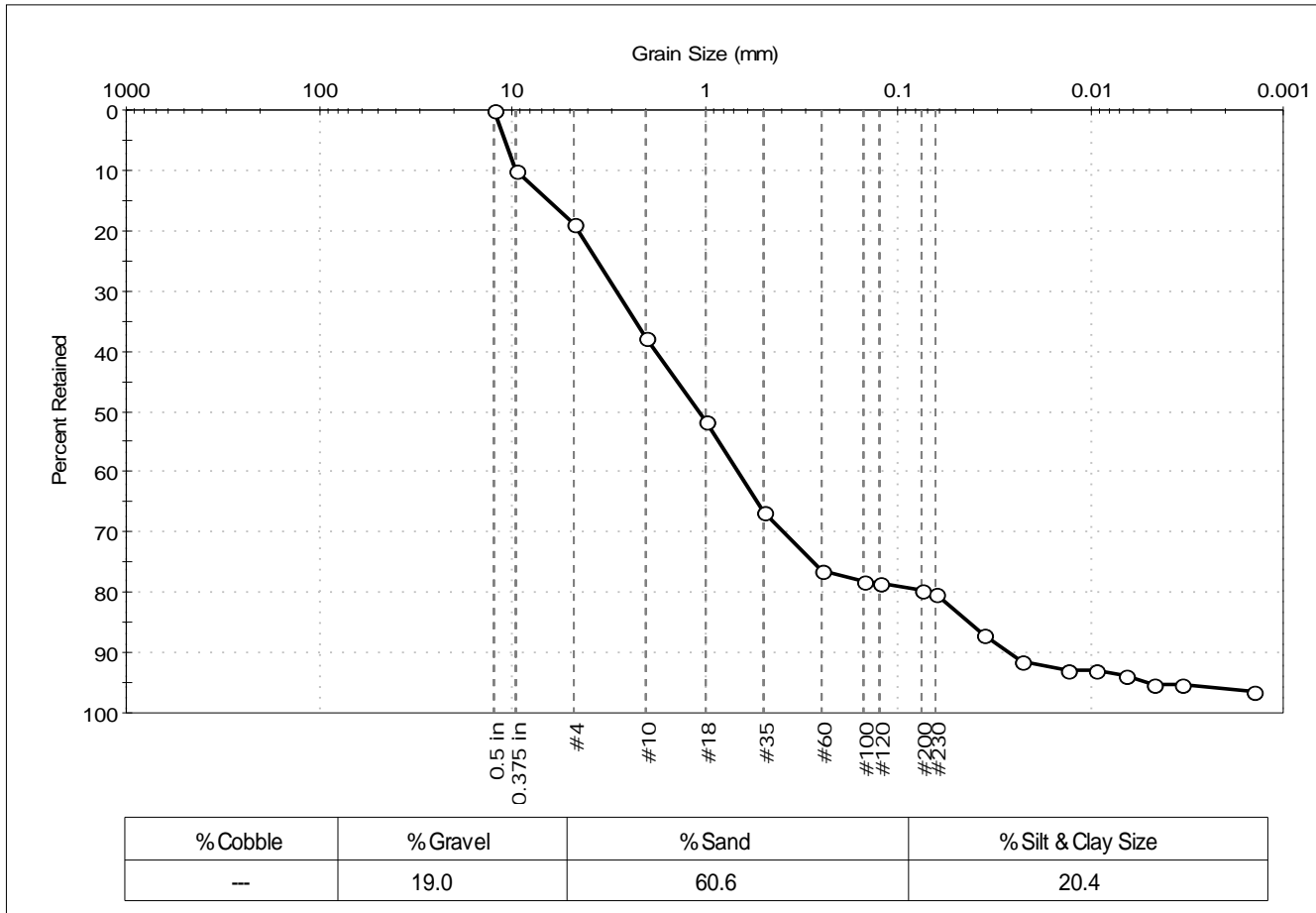
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	352-14LTM	Sample Type:	bag
Sample ID:	NBH14-0106	Test Date:	11/18/14
Depth:	---	Test Id:	310095
Test Comment:	---		
Sample Description:	Moist, dark olive gray silty sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	10		
#4	4.75	19		
#10	2.00	38		
#18	1.00	52		
#35	0.50	67		
#60	0.25	76		
#100	0.15	78		
#120	0.12	78		
#200	0.075	80		
#230	0.063	80		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0354	87		
---	0.0228	92		
---	0.0132	93		
---	0.0093	93		
---	0.0066	94		
---	0.0047	95		
---	0.0033	95		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 6.4883 mm	D ₃₀ = 0.3937 mm
D ₆₀ = 1.7903 mm	D ₁₅ = 0.0424 mm
D ₅₀ = 1.0809 mm	D ₁₀ = 0.0266 mm
C _u = 67.305	C _c = 3.255

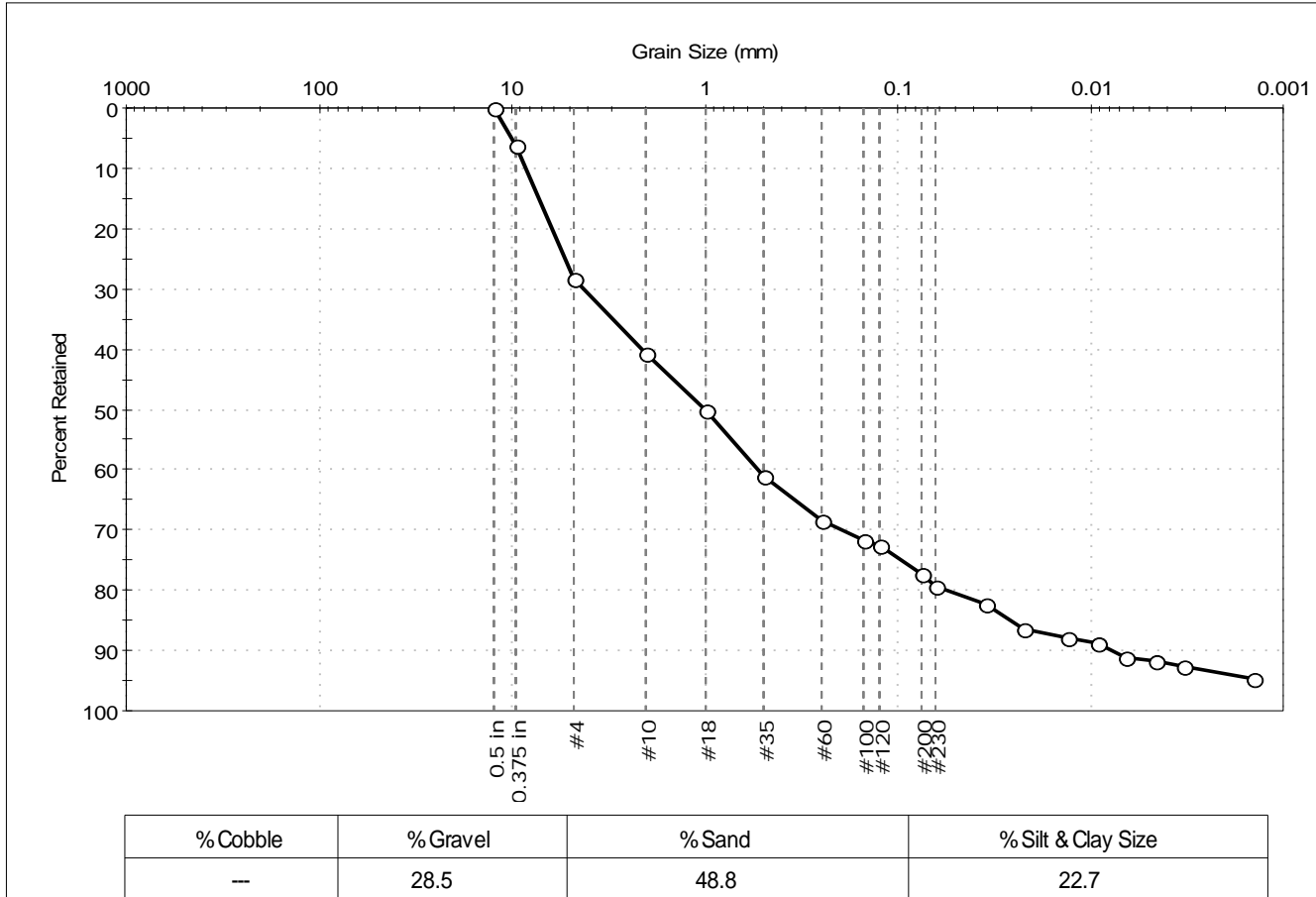
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	352-14LTM	Sample Type:	bag
Sample ID:	NBH14-0107	Test Date:	11/18/14
Depth:	---	Test Id:	310096
Test Comment:	---		
Sample Description:	Moist, dark olive gray silty sand with gravel and organics		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	6		
#4	4.75	28		
#10	2.00	41		
#18	1.00	50		
#35	0.50	61		
#60	0.25	69		
#100	0.15	72		
#120	0.12	72		
#200	0.075	77		
#230	0.063	79		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0349	82		
---	0.0224	86		
---	0.0130	88		
---	0.0092	89		
---	0.0066	91		
---	0.0046	92		
---	0.0033	93		
---	0.0014	95		

<u>Coefficients</u>	
D ₈₅ = 7.2134 mm	D ₃₀ = 0.1957 mm
D ₆₀ = 2.0907 mm	D ₁₅ = 0.0260 mm
D ₅₀ = 1.0130 mm	D ₁₀ = 0.0076 mm
C _u = 275.092	C _c = 2.410

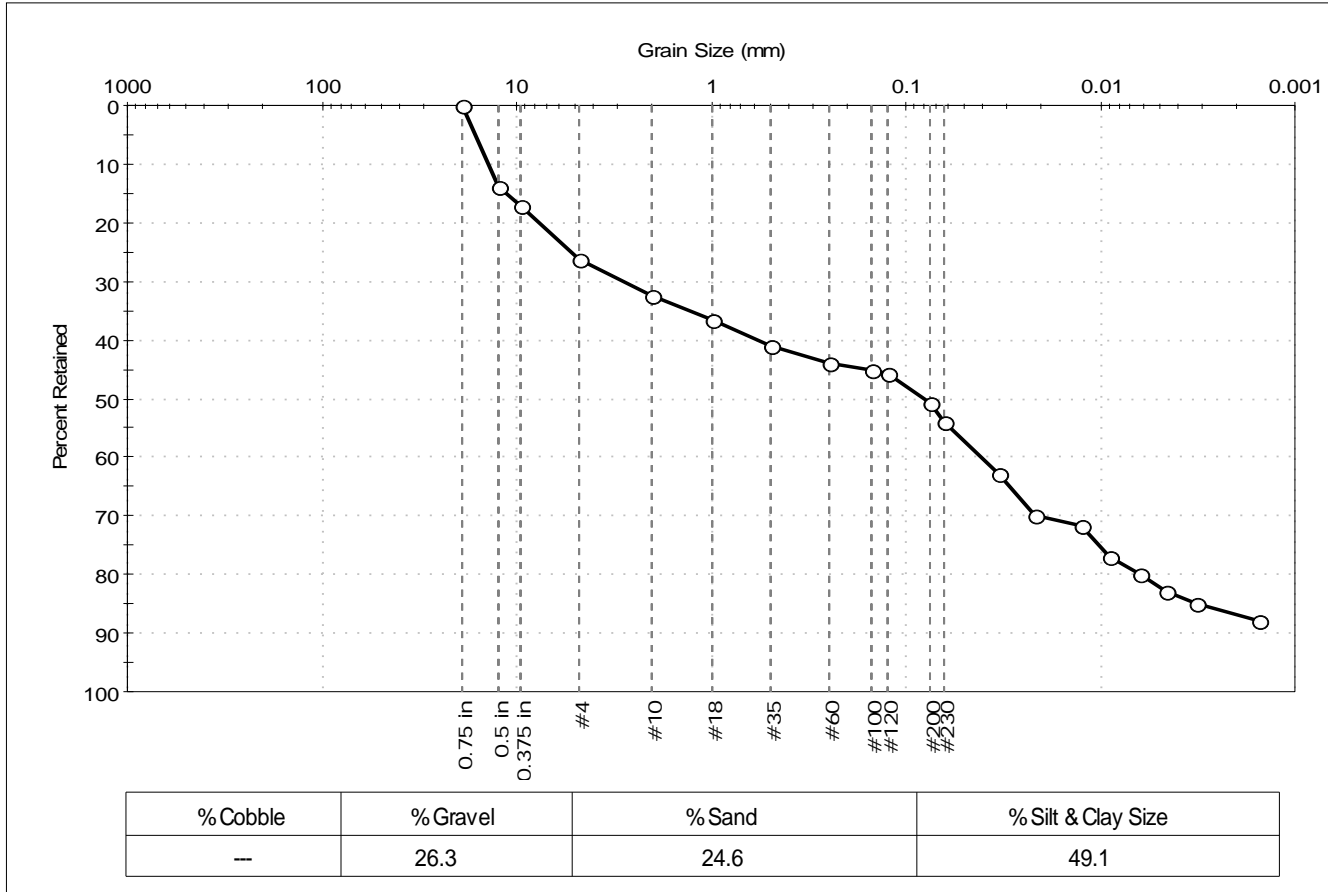
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 352-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0108	Test Date: 11/19/14	Checked By: jdt	
Depth: ---	Test Id: 310097		
Test Comment: ---			
Sample Description: Moist, very dark gray silty gravel with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	14		
0.375 in	9.50	17		
#4	4.75	26		
#10	2.00	32		
#18	1.00	37		
#35	0.50	41		
#60	0.25	44		
#100	0.15	45		
#120	0.12	46		
#200	0.075	51		
#230	0.063	54		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0332	63		
---	0.0215	70		
---	0.0124	72		
---	0.0089	77		
---	0.0064	80		
---	0.0046	83		
---	0.0032	85		
---	0.0016	88		

Coefficients

D ₈₅ = 11.4838 mm	D ₃₀ = 0.0204 mm
D ₆₀ = 0.5916 mm	D ₁₅ = 0.0031 mm
D ₅₀ = 0.0819 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

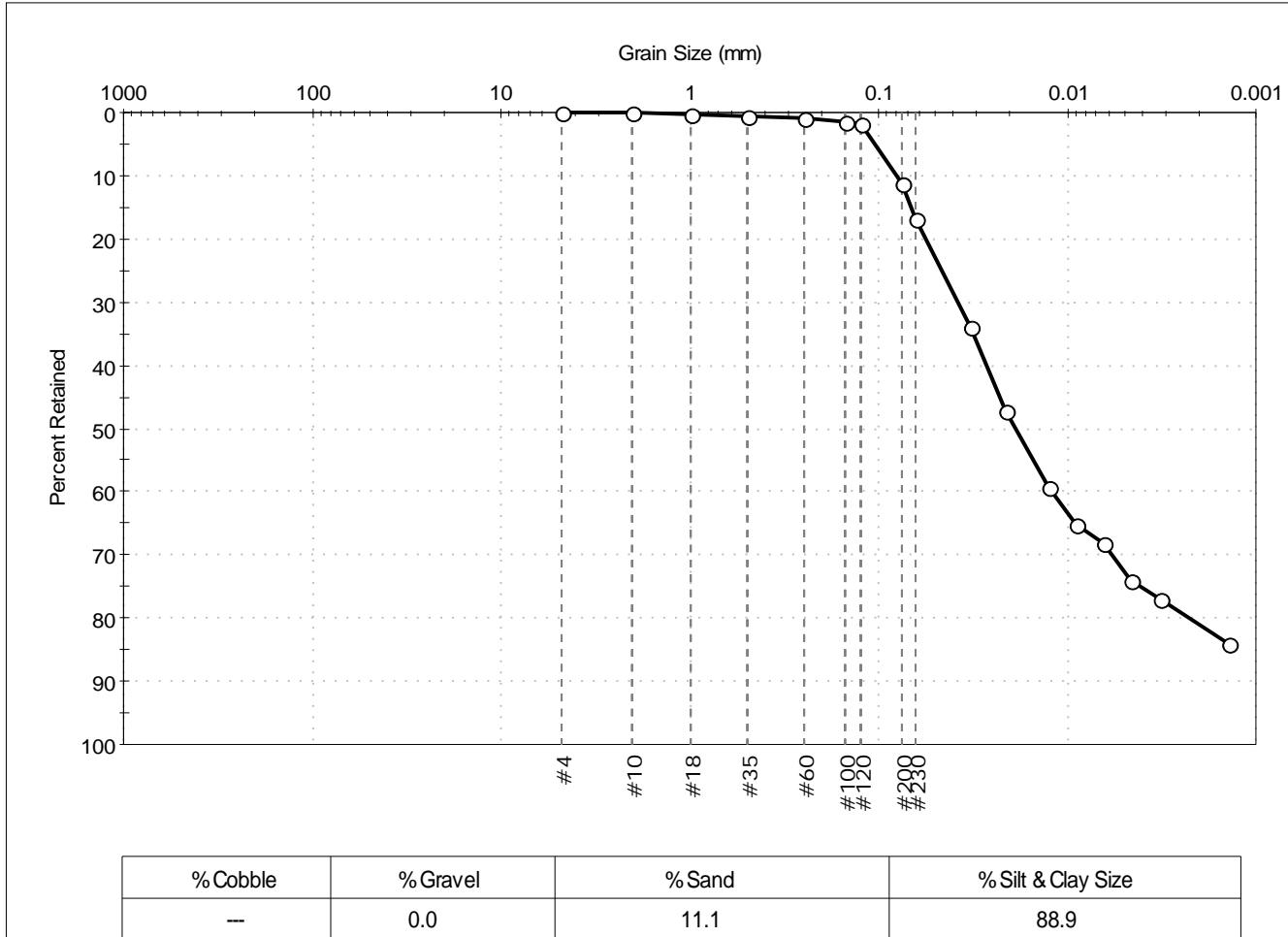
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 345-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0109	Test Date: 11/18/14	Test Id: 310098	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	11		
#230	0.063	17		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	34		
---	0.0212	47		
---	0.0125	59		
---	0.0090	65		
---	0.0064	68		
---	0.0046	74		
---	0.0032	77		
---	0.0014	84		

<u>Coefficients</u>	
D ₈₅ = 0.0665 mm	D ₃₀ = 0.0058 mm
D ₆₀ = 0.0266 mm	D ₁₅ = N/A
D ₅₀ = 0.0188 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

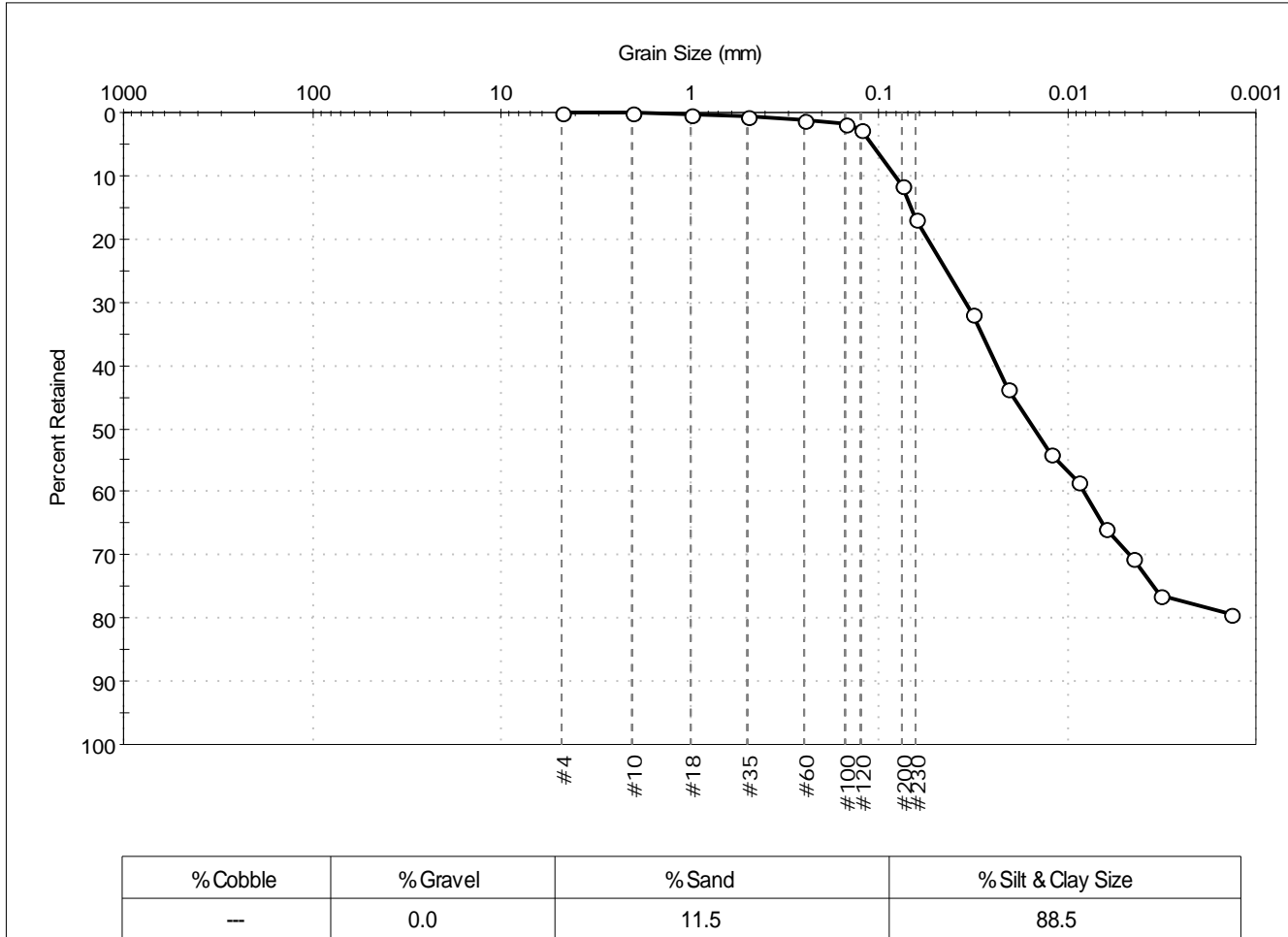
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 345-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0110	Test Date: 11/03/14	Test Id: 310099	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark greenish gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	2		
#120	0.12	3		
#200	0.075	11		
#230	0.063	17		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	32		
---	0.0208	44		
---	0.0123	54		
---	0.0088	59		
---	0.0063	66		
---	0.0045	70		
---	0.0032	76		
---	0.0014	79		

<u>Coefficients</u>	
D ₈₅ = 0.0666 mm	D ₃₀ = 0.0046 mm
D ₆₀ = 0.0238 mm	D ₁₅ = N/A
D ₅₀ = 0.0152 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

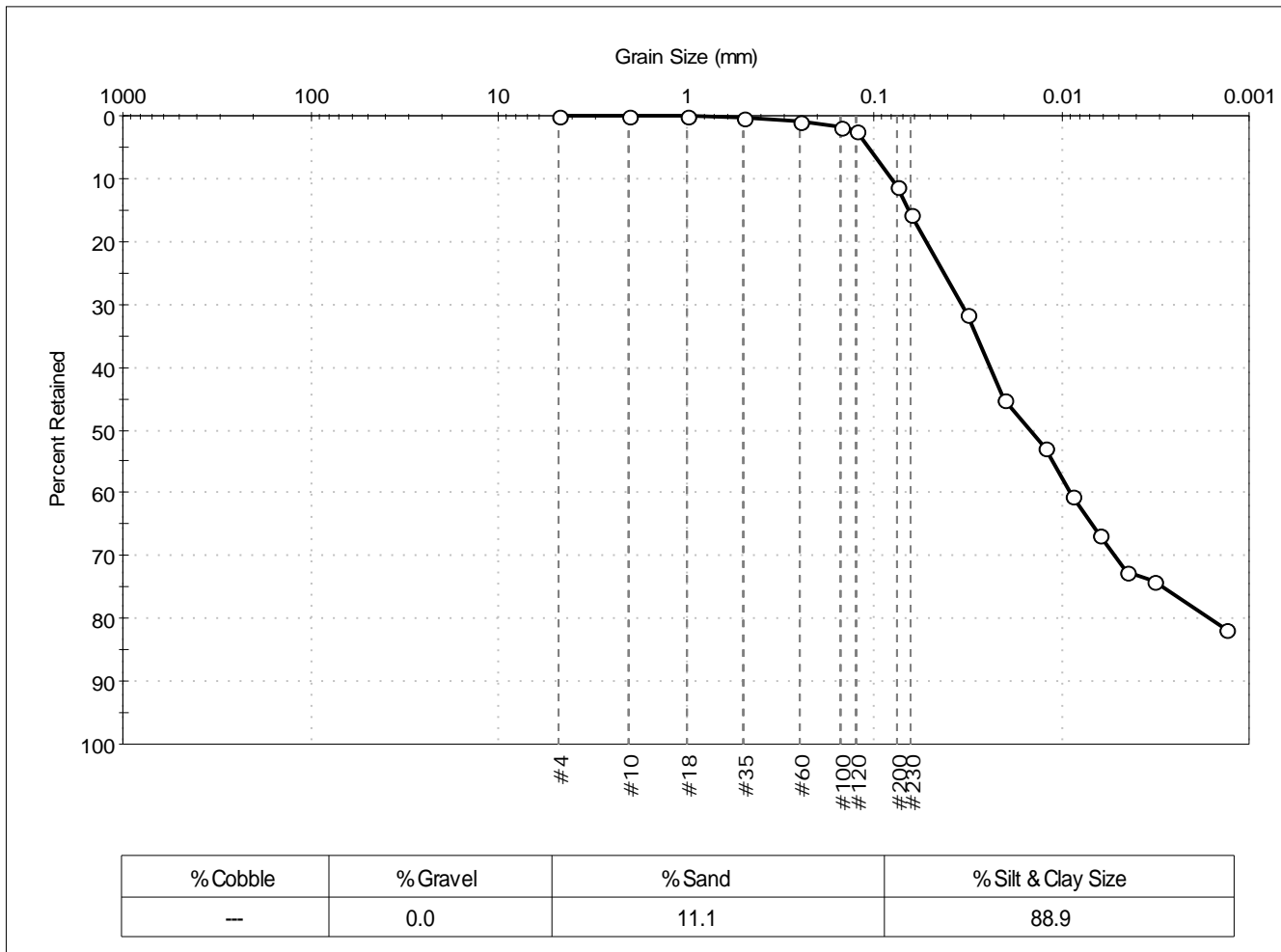
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 345-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0110DUP	Test Date: 10/27/14	Depth: ---	Test Id: 310100
Test Comment: ---	Sample Description: Wet, gray silt	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	11		
#230	0.063	16		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	32		
---	0.0204	45		
---	0.0122	53		
---	0.0088	60		
---	0.0063	67		
---	0.0045	73		
---	0.0032	74		
---	0.0013	82		

<u>Coefficients</u>	
D ₈₅ = 0.0648 mm	D ₃₀ = 0.0052 mm
D ₆₀ = 0.0242 mm	D ₁₅ = N/A
D ₅₀ = 0.0148 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

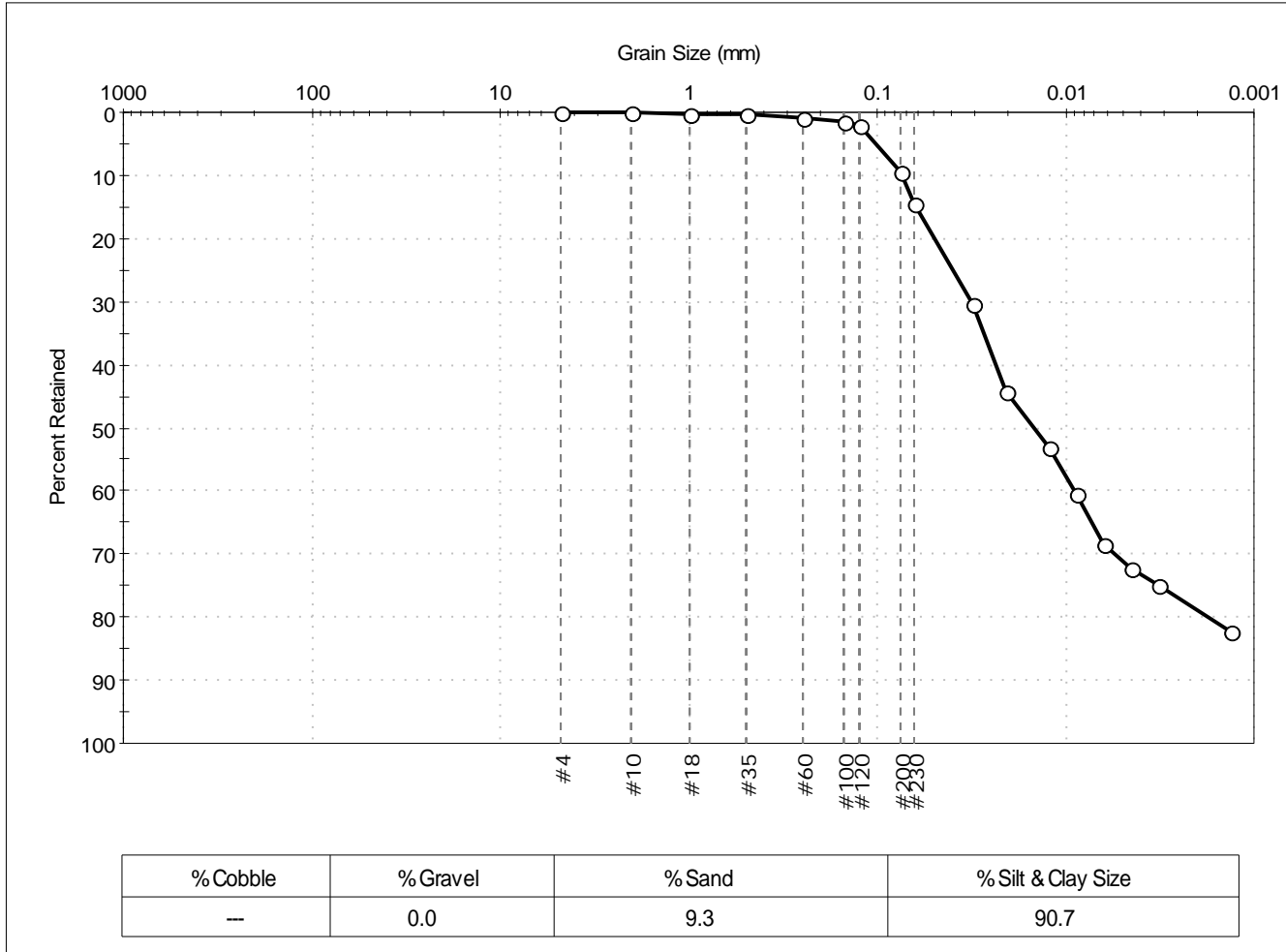
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 345-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0111	Test Date: 11/18/14	Test Id: 310101	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	9		
#230	0.063	14		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0312	30		
---	0.0206	44		
---	0.0122	53		
---	0.0088	61		
---	0.0063	69		
---	0.0045	72		
---	0.0032	75		
---	0.0013	82		

Coefficients	
D ₈₅ = 0.0616 mm	D ₃₀ = 0.0055 mm
D ₆₀ = 0.0233 mm	D ₁₅ = N/A
D ₅₀ = 0.0146 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

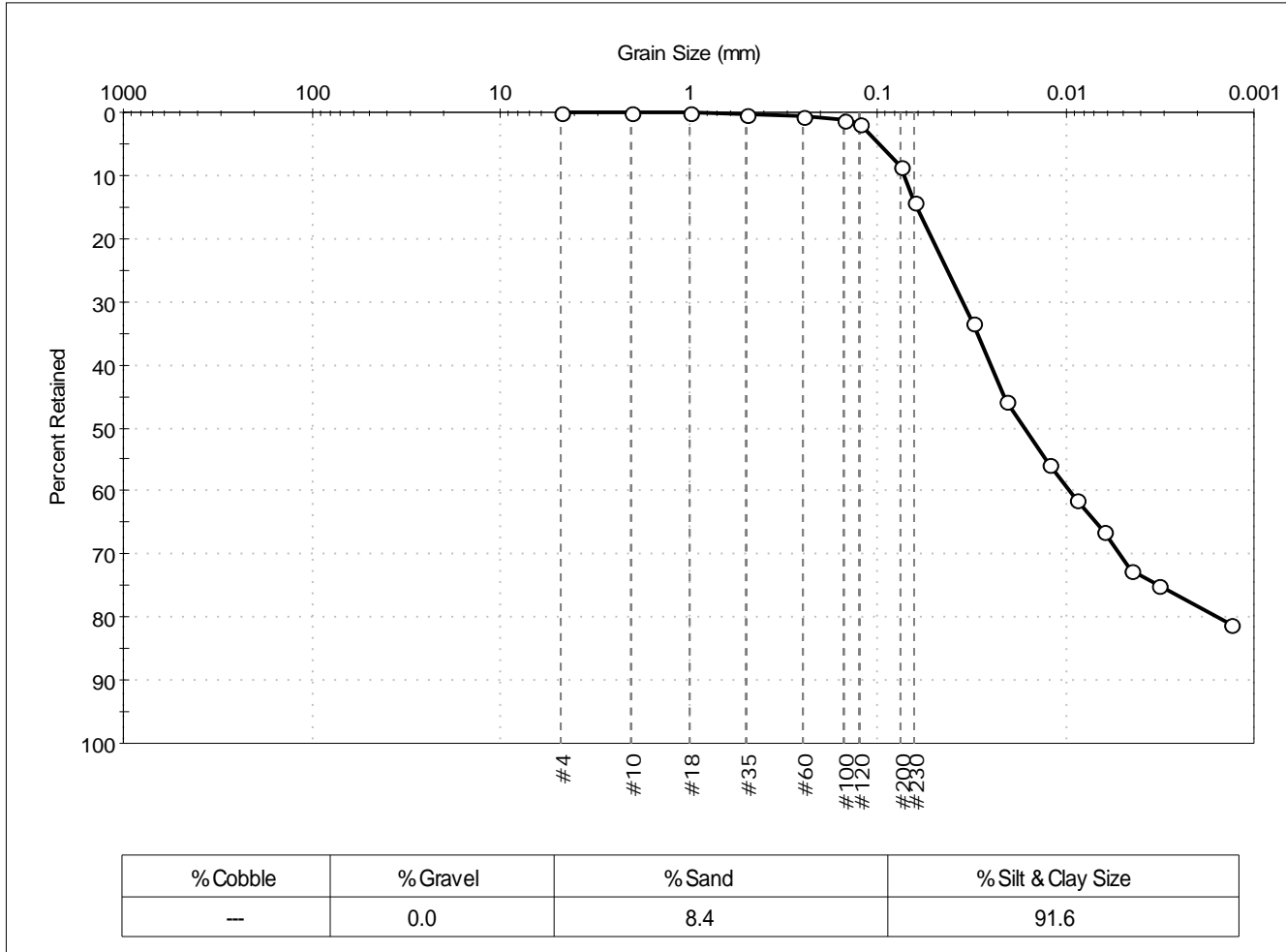
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 345-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0112	Test Date: 11/18/14	Test Id: 310102	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	8		
#230	0.063	14		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0314	33		
---	0.0207	46		
---	0.0123	56		
---	0.0088	61		
---	0.0063	66		
---	0.0045	73		
---	0.0032	75		
---	0.0013	81		

<u>Coefficients</u>	
D ₈₅ = 0.0613 mm	D ₃₀ = 0.0052 mm
D ₆₀ = 0.0252 mm	D ₁₅ = N/A
D ₅₀ = 0.0167 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

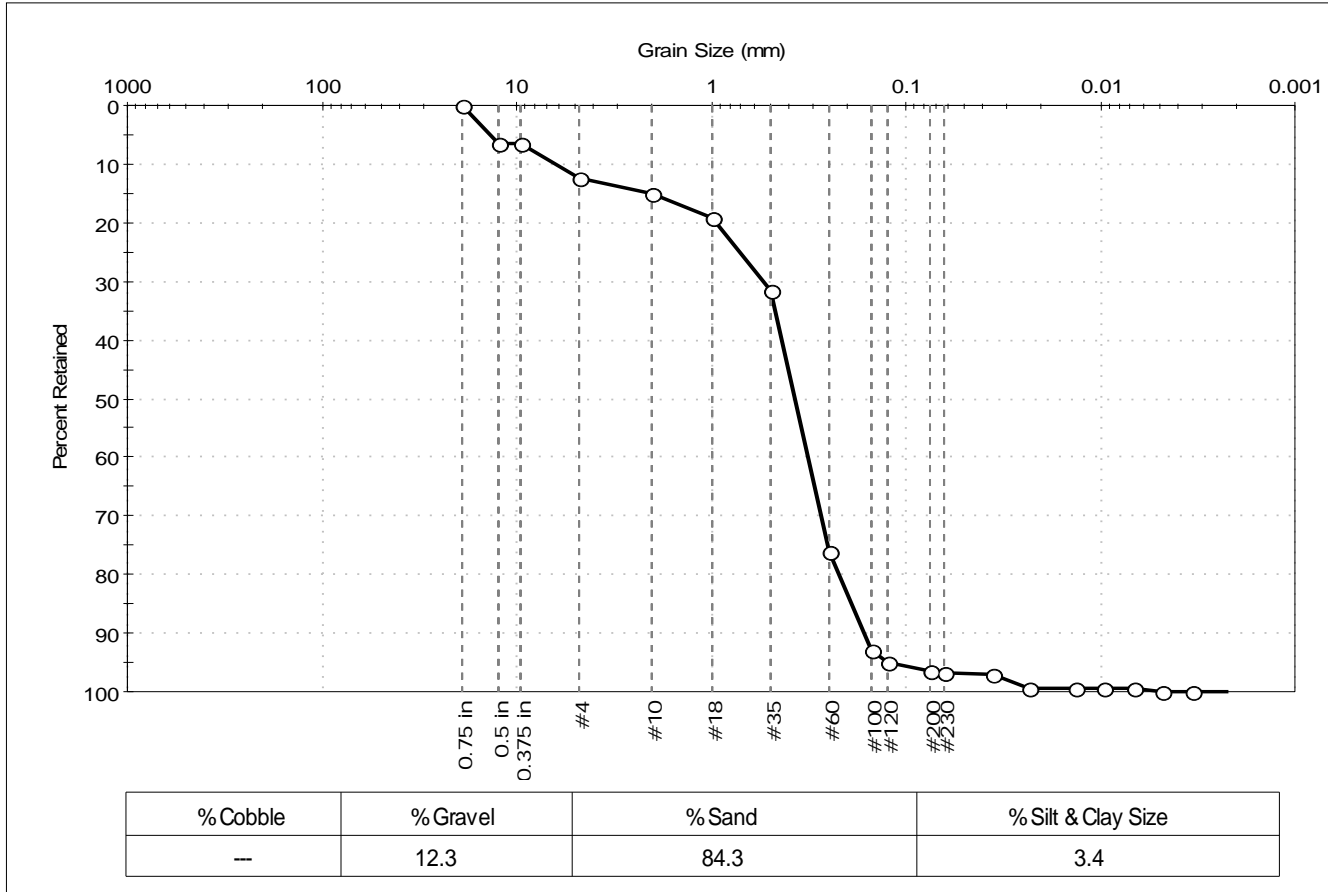
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 318-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0113	Test Date: 11/18/14	Checked By: jdt	
Depth: ---	Test Id: 310103		
Test Comment: ---			
Sample Description: Moist, olive gray sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	6		
0.375 in	9.50	6		
#4	4.75	12		
#10	2.00	15		
#18	1.00	19		
#35	0.50	32		
#60	0.25	76		
#100	0.15	93		
#120	0.12	95		
#200	0.075	96.6		
#230	0.063	97		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0362	97		
---	0.0235	99		
---	0.0135	99		
---	0.0096	99		
---	0.0068	99		
---	0.0048	100		
---	0.0034	100		
---	0.0014	100		

<u>Coefficients</u>	
D ₈₅ = 2.1110 mm	D ₃₀ = 0.2746 mm
D ₆₀ = 0.4389 mm	D ₁₅ = 0.1909 mm
D ₅₀ = 0.3754 mm	D ₁₀ = 0.1643 mm
C _u = 2.671	C _c = 1.046

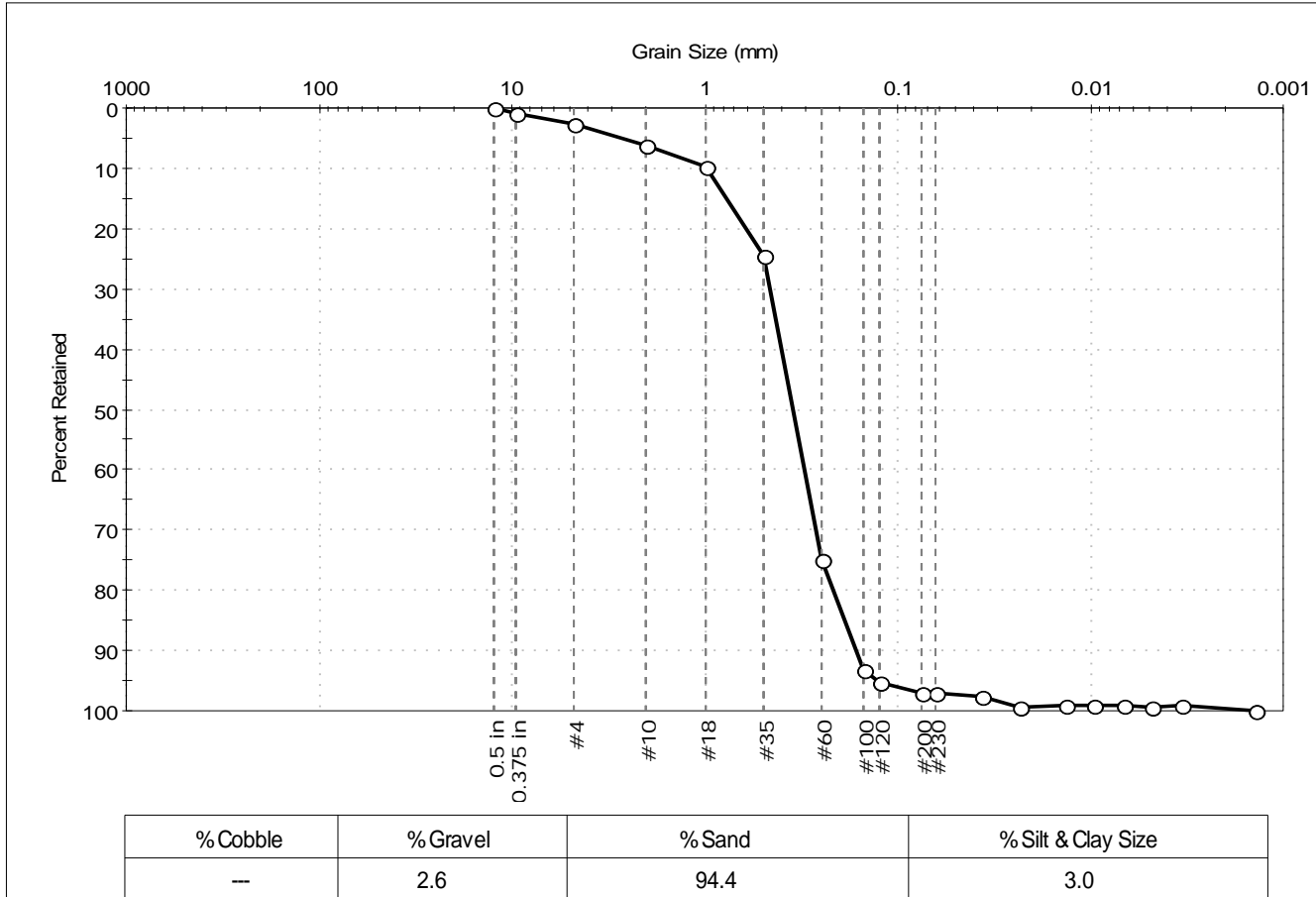
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ROUNDED	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	318-14LTM	Sample Type:	bag
Sample ID:	NBH14-0114	Test Date:	11/18/14
Depth:	---	Test Id:	310104
Test Comment:	---		
Sample Description:	Moist, olive gray sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	3		
#10	2.00	6		
#18	1.00	10		
#35	0.50	25		
#60	0.25	75		
#100	0.15	93		
#120	0.12	95		
#200	0.075	97.0		
#230	0.063	97		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0366	98		
---	0.0235	99		
---	0.0135	99		
---	0.0095	99		
---	0.0067	99		
---	0.0048	99		
---	0.0034	99		
---	0.0014	100		

Coefficients

D ₈₅ = 0.7829 mm	D ₃₀ = 0.2678 mm
D ₆₀ = 0.4043 mm	D ₁₅ = 0.1888 mm
D ₅₀ = 0.3524 mm	D ₁₀ = 0.1640 mm
C _u = 2.465	C _c = 1.082

Classification

ASTM	Poorly graded sand (SP)
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

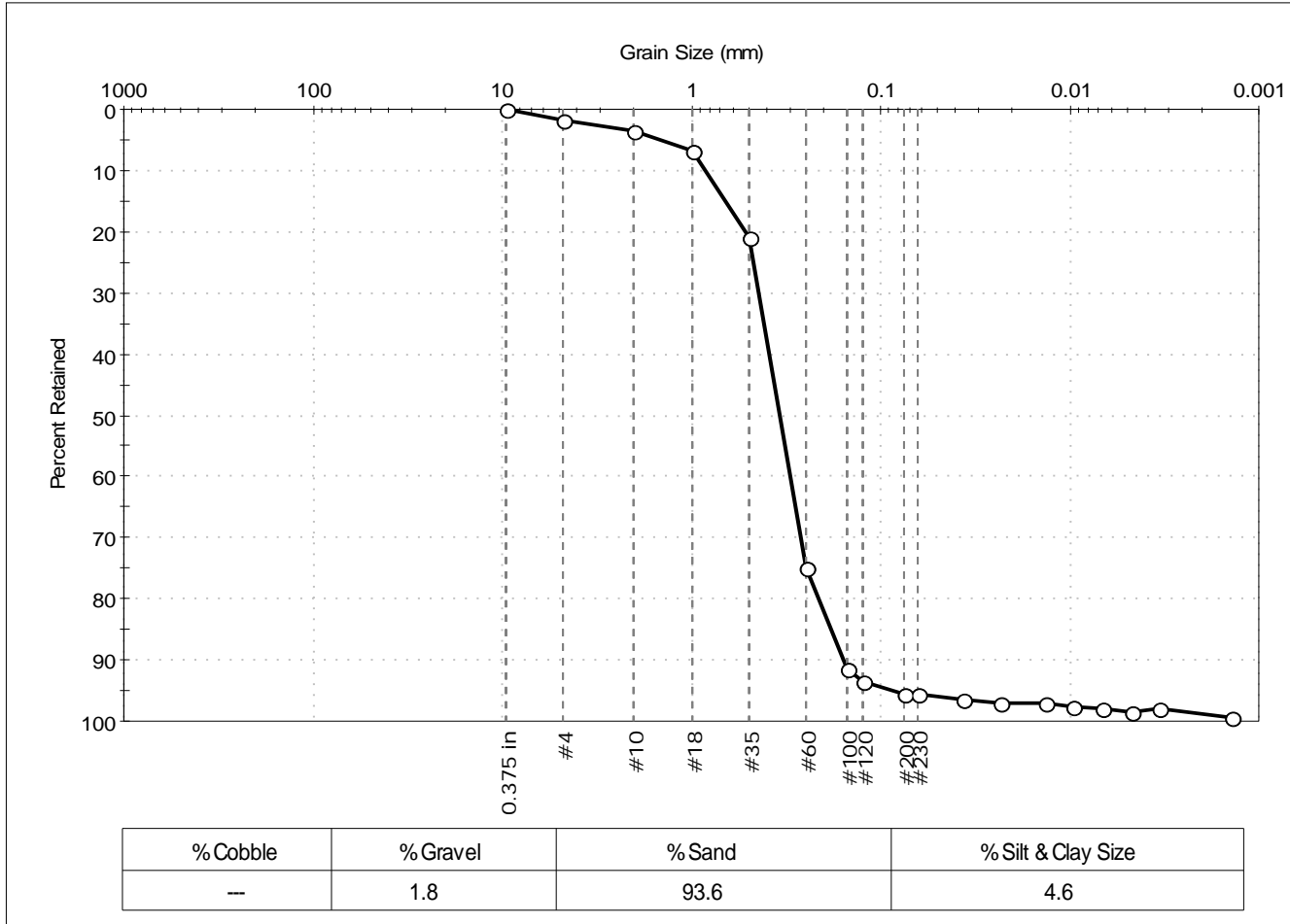
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	318-14LTM	Sample Type:	bag
Sample ID:	NBH14-0115	Test Date:	11/18/14
Depth:	---	Test Id:	310105
Test Comment:	---		
Sample Description:	Moist, olive gray sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	3		
#18	1.00	7		
#35	0.50	21		
#60	0.25	75		
#100	0.15	91		
#120	0.12	94		
#200	0.075	95.4		
#230	0.063	96		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0368	96		
---	0.0233	97		
---	0.0135	97		
---	0.0095	98		
---	0.0067	98		
---	0.0048	99		
---	0.0034	98		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 0.6703 mm	D ₃₀ = 0.2662 mm
D ₆₀ = 0.3918 mm	D ₁₅ = 0.1832 mm
D ₅₀ = 0.3444 mm	D ₁₀ = 0.1571 mm
C _u = 2.494	C _c = 1.151

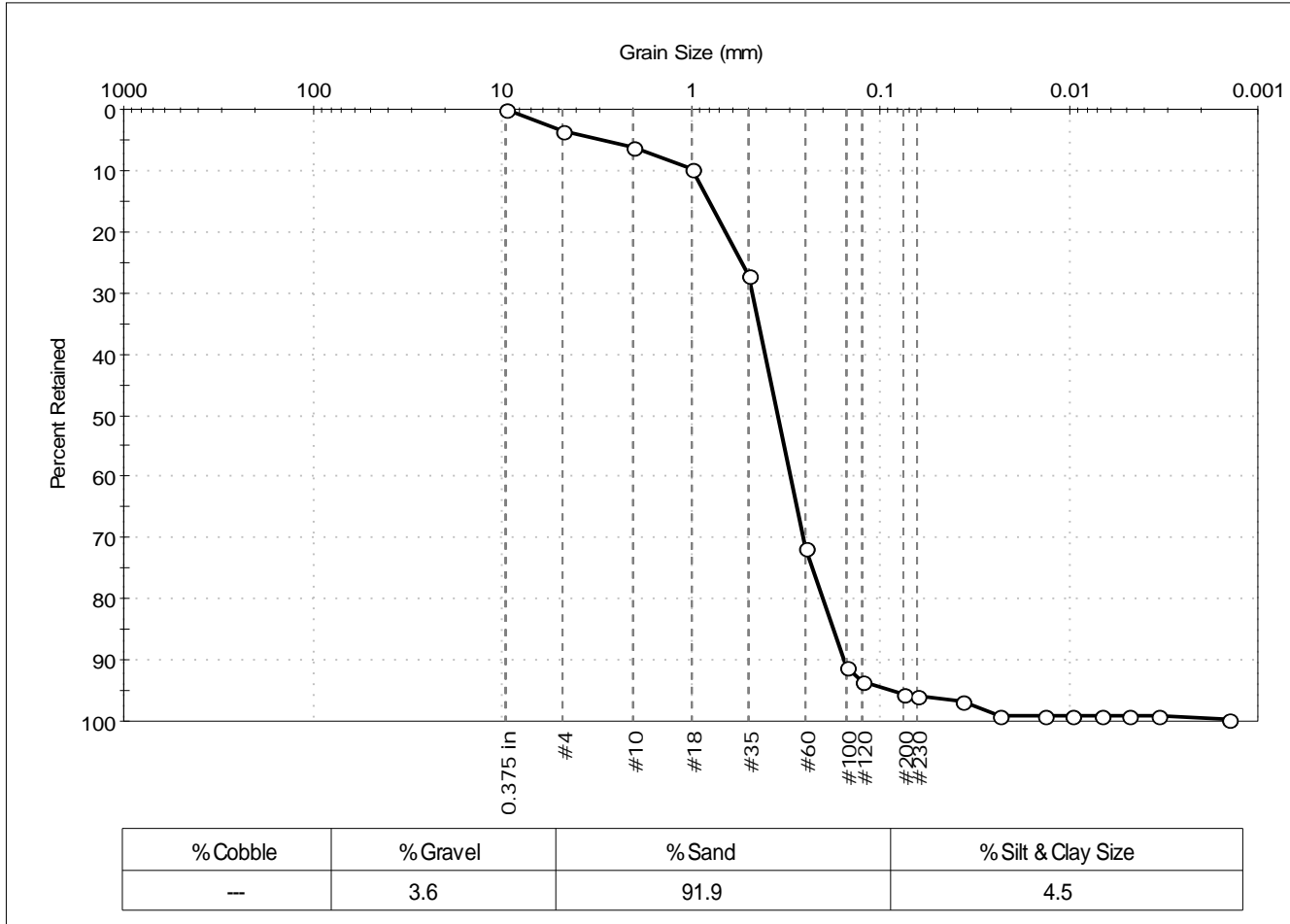
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	318-14LTM	Sample Type:	bag
Sample ID:	NBH14-0116	Test Date:	11/18/14
Depth:	---	Test Id:	310106
Test Comment:	---		
Sample Description:	Moist, olive gray sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	4		
#10	2.00	6		
#18	1.00	10		
#35	0.50	27		
#60	0.25	72		
#100	0.15	91		
#120	0.12	93		
#200	0.075	95.5		
#230	0.063	96		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0365	97		
---	0.0235	99		
---	0.0134	99		
---	0.0096	99		
---	0.0068	99		
---	0.0048	99		
---	0.0034	99		
---	0.0014	100		

Coefficients

D ₈₅ = 0.8112 mm	D ₃₀ = 0.2563 mm
D ₆₀ = 0.4089 mm	D ₁₅ = 0.1765 mm
D ₅₀ = 0.3499 mm	D ₁₀ = 0.1550 mm
C _u = 2.638	C _c = 1.036

Classification

ASTM	Poorly graded sand (SP)
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

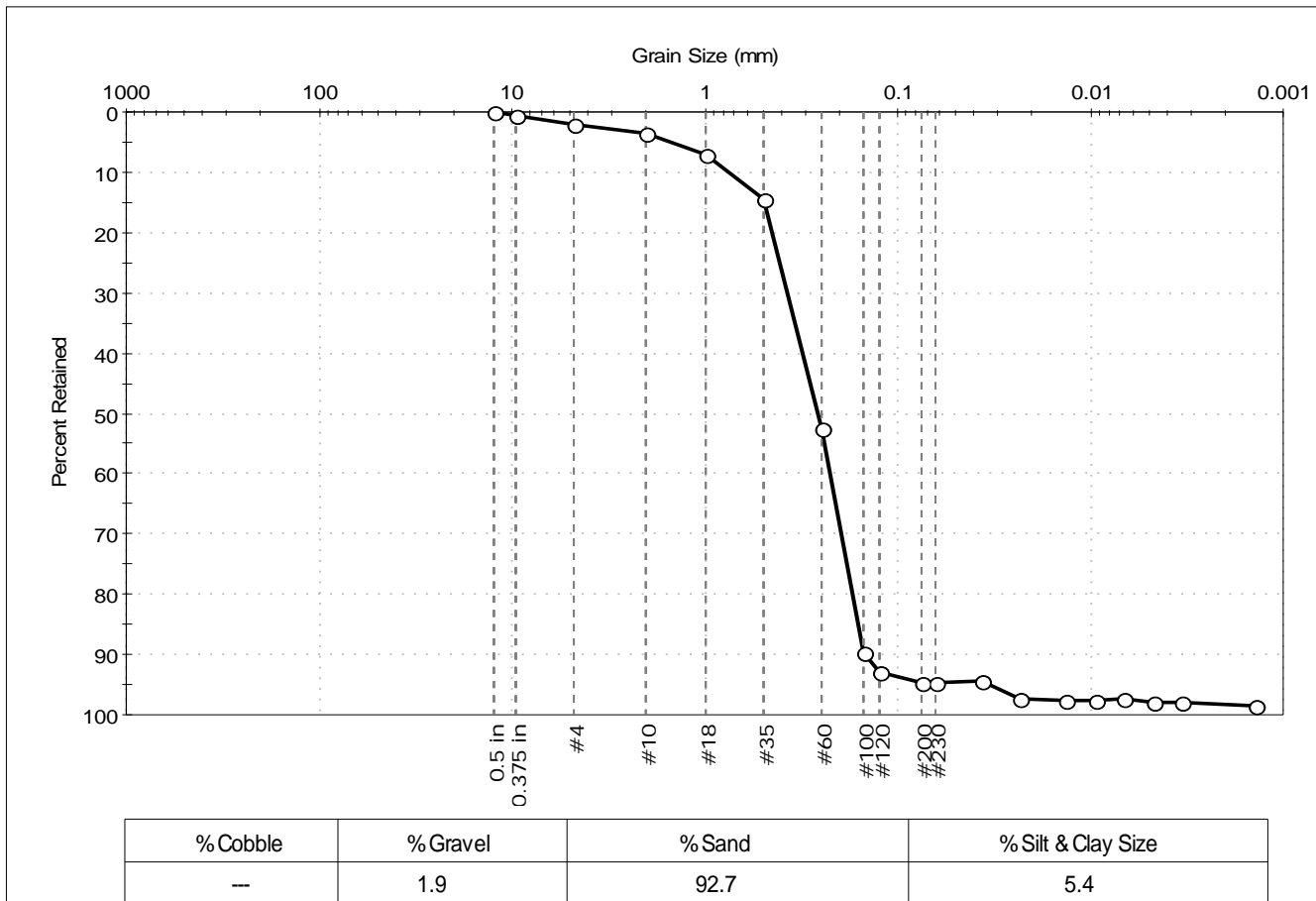
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 311-14LTM	Sample Type: bag
Sample ID: NBH14-0117	Test Date: 11/18/14
Depth: ---	Test Id: 310107
Test Comment: ---	Tested By: jbr
Sample Description: Moist, dark olive gray sand with silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	2		
#10	2.00	3		
#18	1.00	7		
#35	0.50	14		
#60	0.25	53		
#100	0.15	90		
#120	0.12	93		
#200	0.075	94.6		
#230	0.063	95		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0364	94		
---	0.0233	97		
---	0.0135	98		
---	0.0095	98		
---	0.0067	97		
---	0.0048	98		
---	0.0034	98		
---	0.0014	98		

Coefficients

D ₈₅ = 0.4955 mm	D ₃₀ = 0.1965 mm
D ₆₀ = 0.3143 mm	D ₁₅ = 0.1597 mm
D ₅₀ = 0.2620 mm	D ₁₀ = 0.1464 mm
C _u = 2.147	C _c = 0.839

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

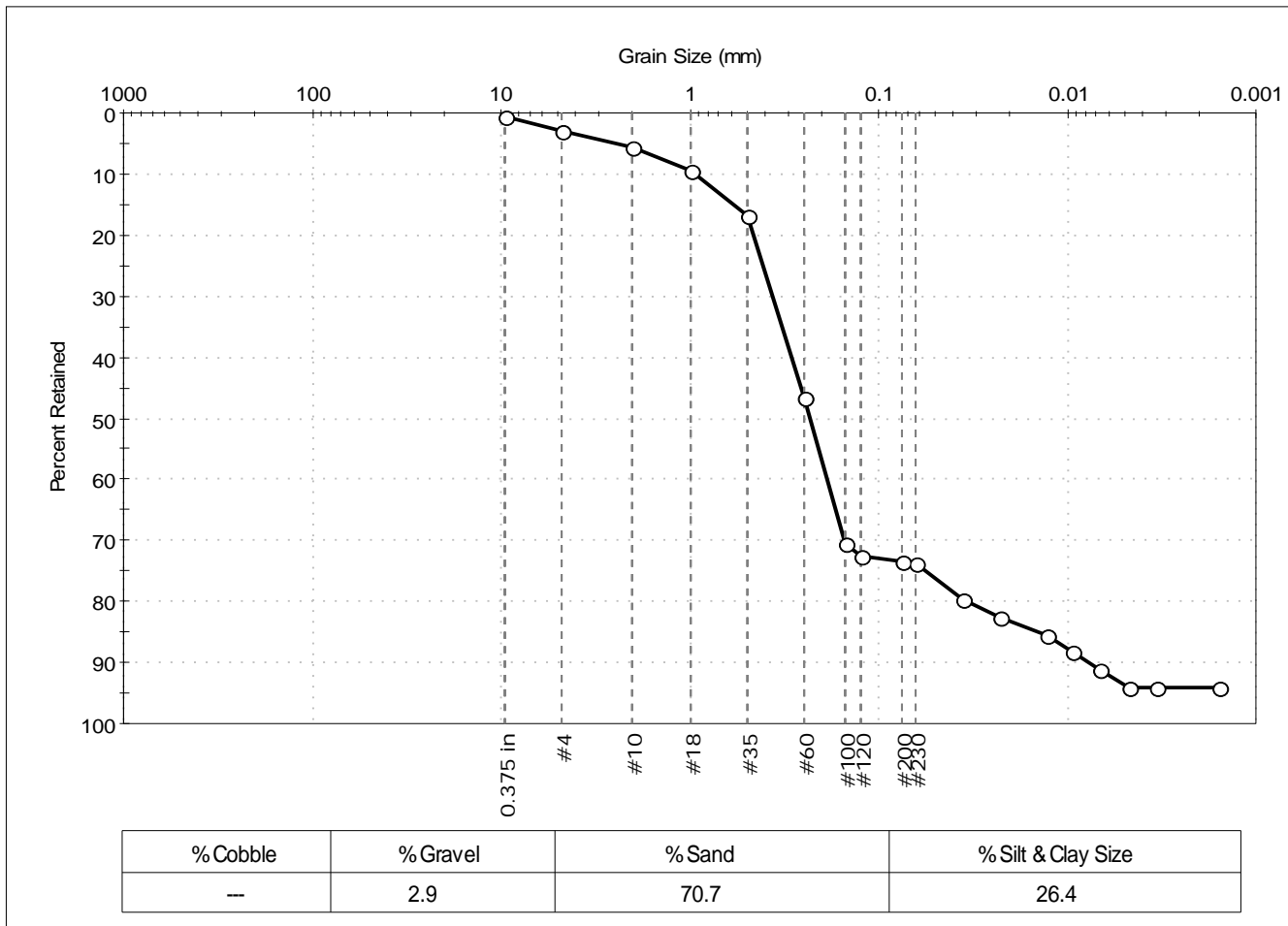
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 311-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0118
 Test Date: 11/18/14
 Checked By: jdt
 Depth: ---
 Test Id: 310108
 Test Comment: ---
 Sample Description: Moist, dark olive gray silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	1		
#4	4.75	3		
#10	2.00	6		
#18	1.00	10		
#35	0.50	17		
#60	0.25	47		
#100	0.15	71		
#120	0.12	73		
#200	0.075	74		
#230	0.063	74		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0361	80		
---	0.0230	83		
---	0.0128	85		
---	0.0095	88		
---	0.0067	91		
---	0.0048	94		
---	0.0034	94		
---	0.0016	94		

Coefficients

D ₈₅ = 0.5925 mm	D ₃₀ = 0.1517 mm
D ₆₀ = 0.2922 mm	D ₁₅ = 0.0140 mm
D ₅₀ = 0.2331 mm	D ₁₀ = 0.0078 mm
C _u = 37.462	C _c = 10.097

Classification

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

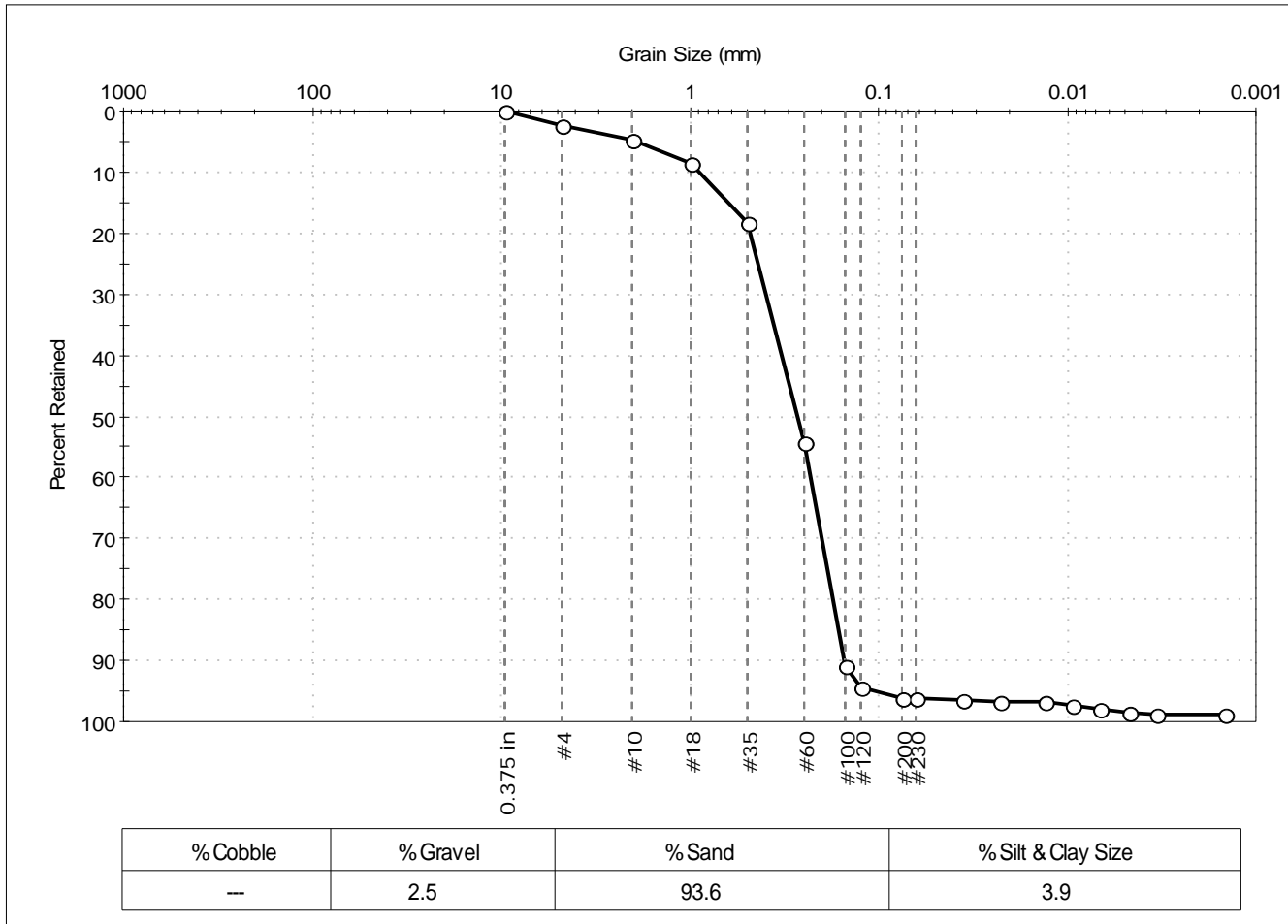
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 311-14LTM	Sample Type: bag
Sample ID: NBH14-0119	Test Date: 11/18/14
Depth: ---	Test Id: 310109
Test Comment: ---	Tested By: jbr
Sample Description: Moist, dark olive gray sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	5		
#18	1.00	9		
#35	0.50	18		
#60	0.25	54		
#100	0.15	91		
#120	0.12	94		
#200	0.075	96.1		
#230	0.063	96		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0356	96		
---	0.0230	97		
---	0.0133	97		
---	0.0094	97		
---	0.0067	98		
---	0.0047	98		
---	0.0034	99		
---	0.0015	99		

<u>Coefficients</u>	
D ₈₅ = 0.6273 mm	D ₃₀ = 0.2011 mm
D ₆₀ = 0.3292 mm	D ₁₅ = 0.1631 mm
D ₅₀ = 0.2719 mm	D ₁₀ = 0.1521 mm
C _u = 2.164	C _c = 0.808

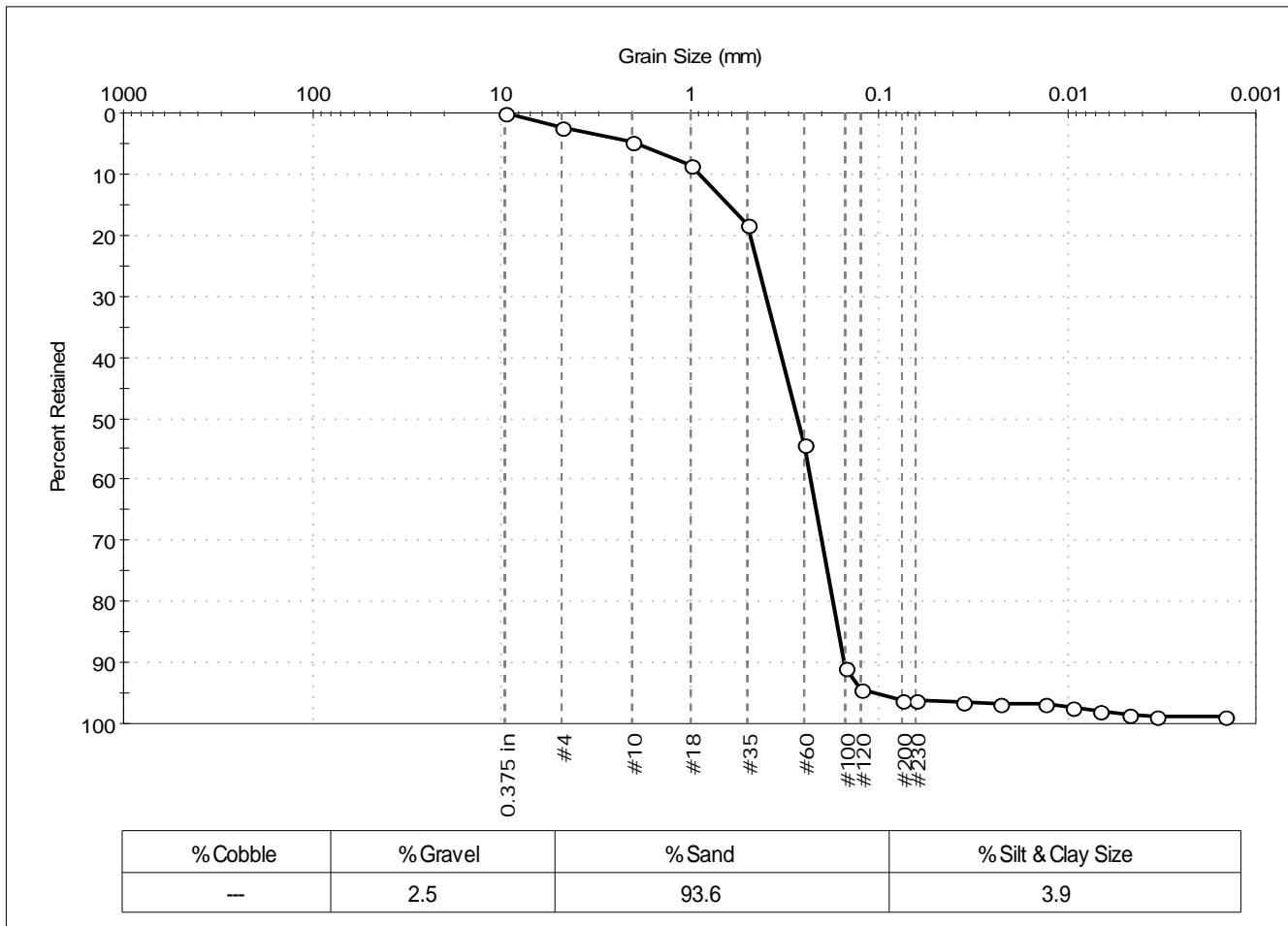
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 311-14LTM	Sample Type: bag
Sample ID: NBH14-0119	Test Date: 11/18/14
Depth: ---	Test Id: 310109
Test Comment: ---	Tested By: jbr
Sample Description: Moist, dark olive gray sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	5		
#18	1.00	9		
#35	0.50	18		
#60	0.25	54		
#100	0.15	91		
#120	0.12	94		
#200	0.075	96.1		
#230	0.063	96		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0356	96		
---	0.0230	97		
---	0.0133	97		
---	0.0094	97		
---	0.0067	98		
---	0.0047	98		
---	0.0034	99		
---	0.0015	99		

<u>Coefficients</u>	
D ₈₅ = 0.6273 mm	D ₃₀ = 0.2011 mm
D ₆₀ = 0.3292 mm	D ₁₅ = 0.1631 mm
D ₅₀ = 0.2719 mm	D ₁₀ = 0.1521 mm
C _u = 2.164	C _c = 0.808

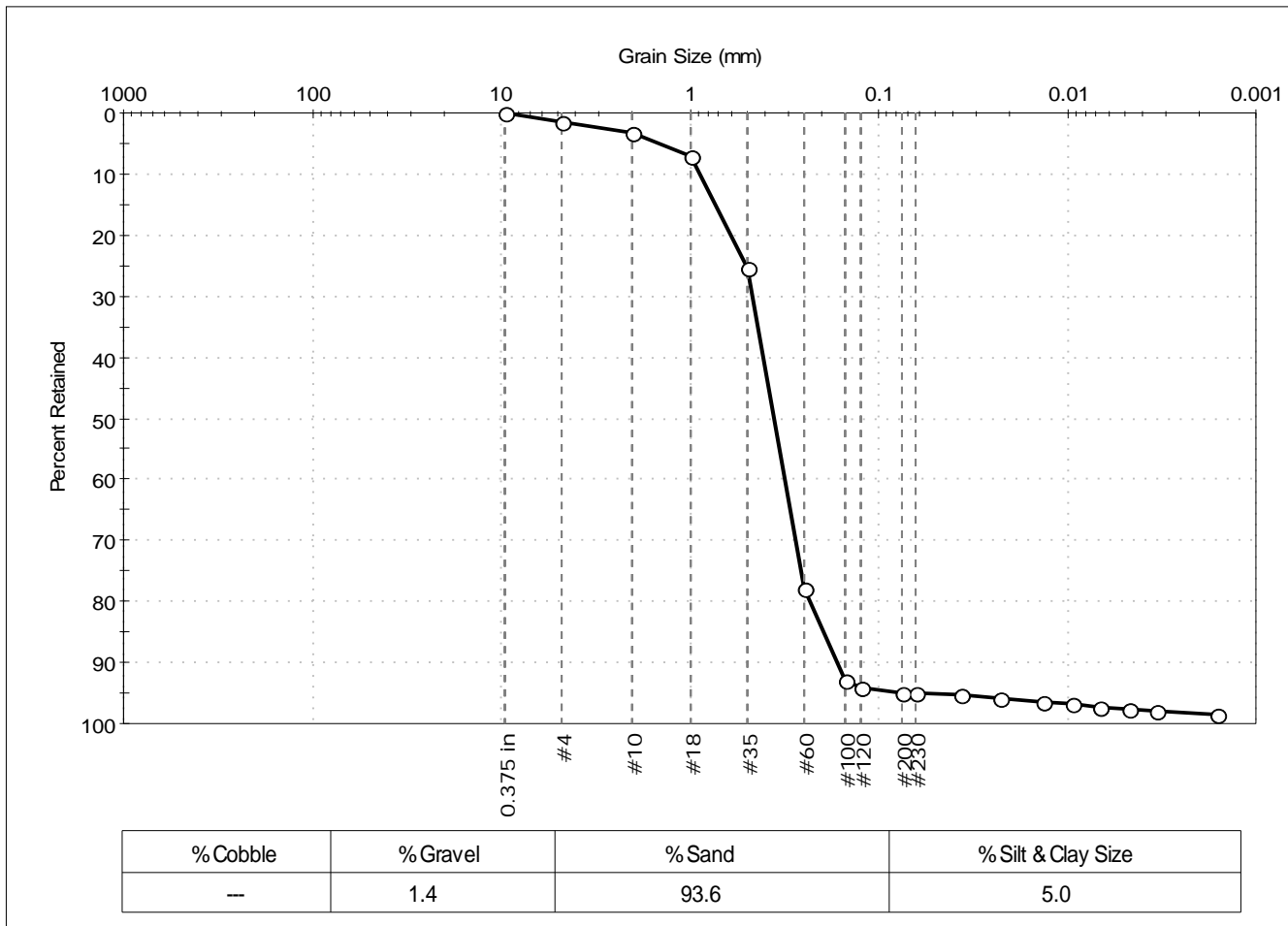
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	306-14LTM	Sample Type:	bag
Sample ID:	NBH14-0121	Test Date:	11/18/14
Depth:	---	Test Id:	310111
Test Comment:	---		
Sample Description:	Moist, olive gray sand with silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	7		
#35	0.50	25		
#60	0.25	78		
#100	0.15	93		
#120	0.12	94		
#200	0.075	95.0		
#230	0.063	95		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0364	95		
---	0.0229	96		
---	0.0134	96		
---	0.0095	97		
---	0.0067	97		
---	0.0047	98		
---	0.0034	98		
---	0.0016	98		

<u>Coefficients</u>	
D ₈₅ = 0.7421 mm	D ₃₀ = 0.2778 mm
D ₆₀ = 0.4128 mm	D ₁₅ = 0.1967 mm
D ₅₀ = 0.3617 mm	D ₁₀ = 0.1658 mm
C _u = 2.490	C _c = 1.128

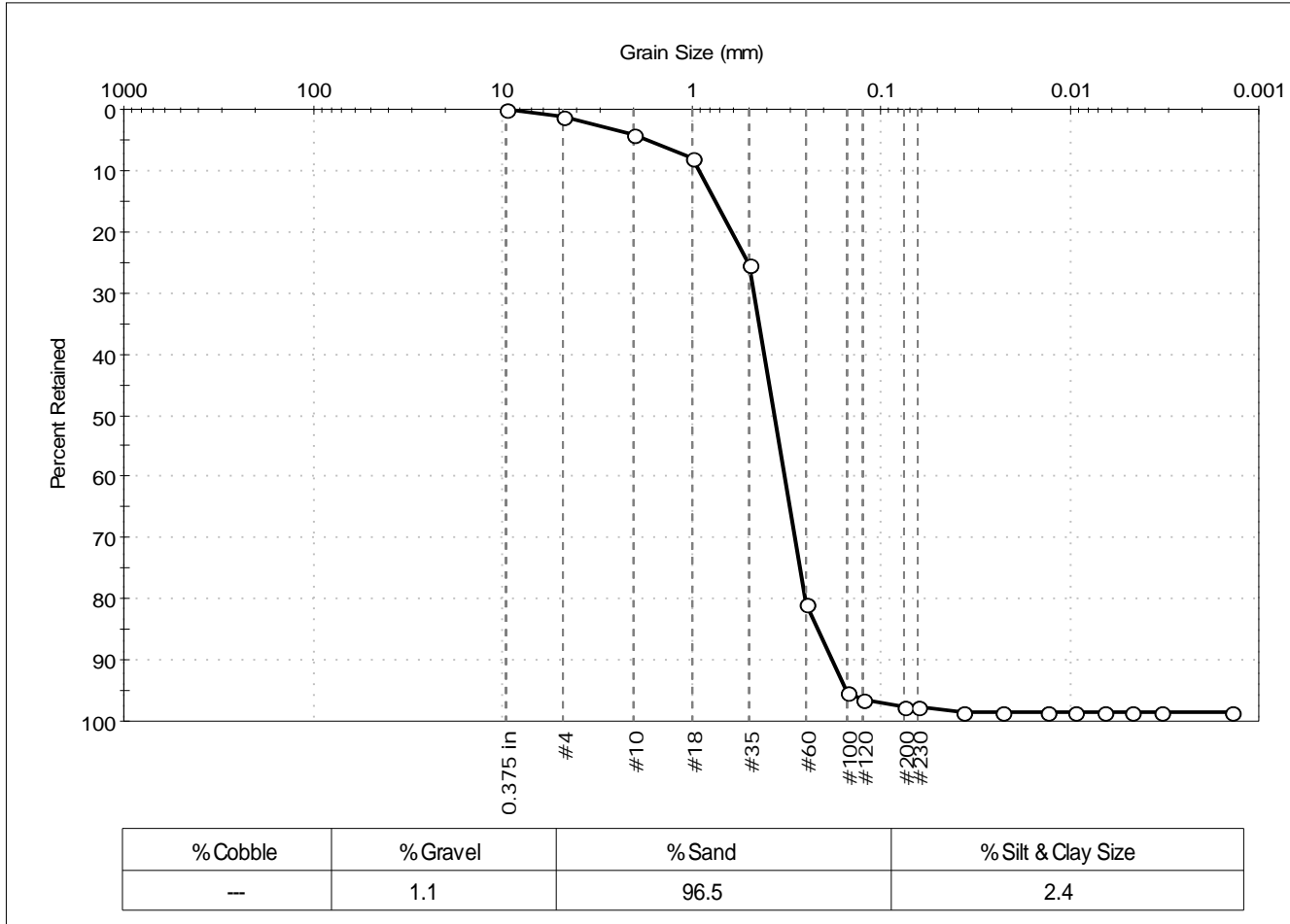
<u>Classification</u>	
ASTM	N/A
AASHTO Stone Fragments, Gravel and Sand (A-1-b (1))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 306-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0122	Test Date: 11/17/14	Test Id: 310112	
Depth: ---	Test Comment: ---	Sample Description: Moist, light olive gray sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	4		
#18	1.00	8		
#35	0.50	25		
#60	0.25	81		
#100	0.15	95		
#120	0.12	96		
#200	0.075	97.6		
#230	0.063	98		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0364	99		
---	0.0230	99		
---	0.0133	99		
---	0.0094	99		
---	0.0066	99		
---	0.0047	99		
---	0.0033	99		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 0.7560 mm	D ₃₀ = 0.2862 mm
D ₆₀ = 0.4166 mm	D ₁₅ = 0.2158 mm
D ₅₀ = 0.3676 mm	D ₁₀ = 0.1810 mm
C _u = 2.302	C _c = 1.086

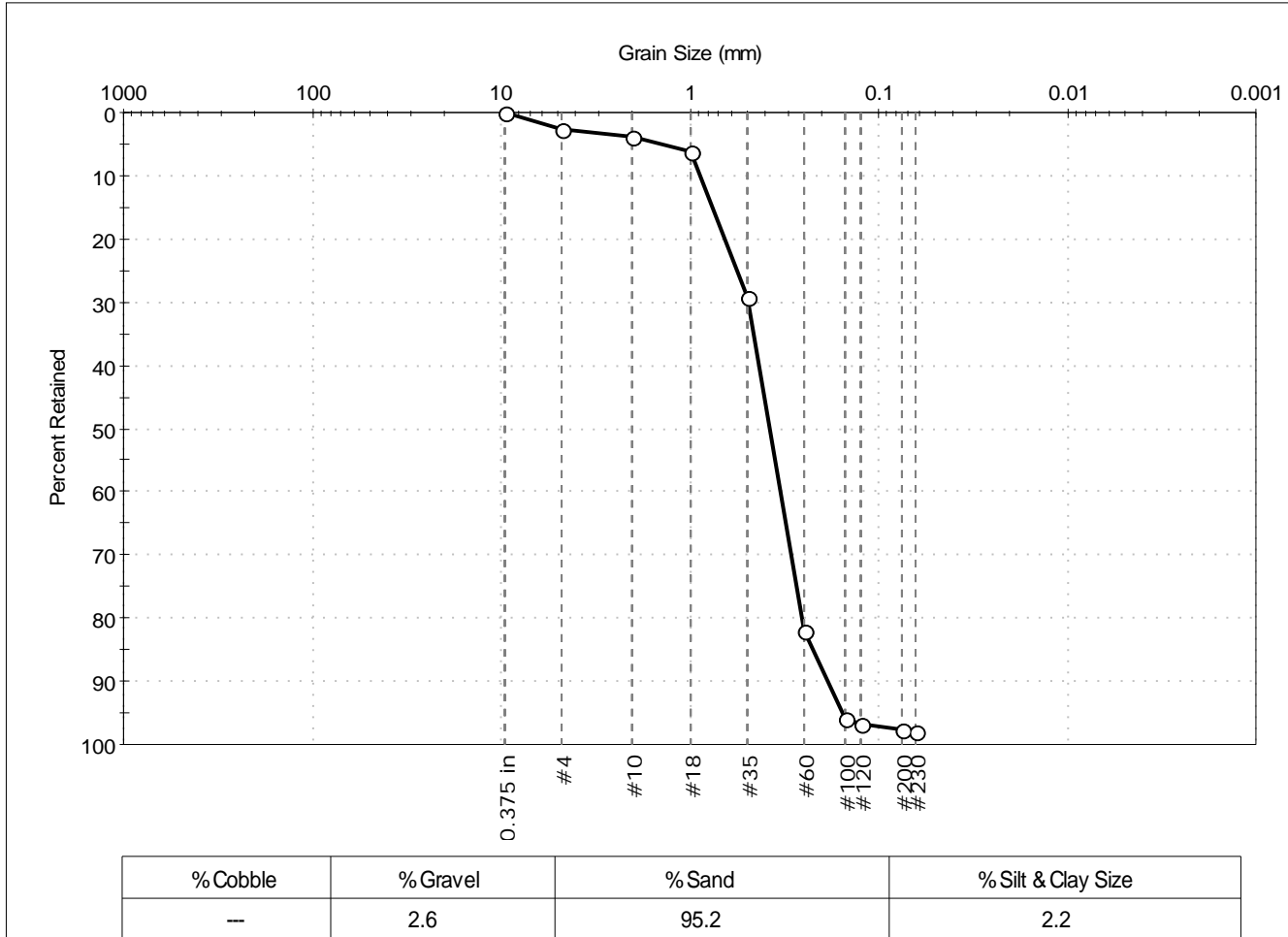
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---
Dispersion Device :	Apparatus A - Mech Mixer
Dispersion Period :	1 minute
Specific Gravity :	2.65
Separation of Sample:	#230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	306-14LTM	Sample Type:	bag
Sample ID:	NBH14-0123	Test Date:	11/18/14
Depth:	---	Test Id:	310113
Test Comment:	Less than 5% fines, no hydrometer was run		
Sample Description:	Moist, light olive gray sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	4		
#18	1.00	6		
#35	0.50	29		
#60	0.25	82		
#100	0.15	96		
#120	0.12	97		
#200	0.075	97.8		
#230	0.063	98		

<u>Coefficients</u>	
D ₈₅ = 0.7690 mm	D ₃₀ = 0.2927 mm
D ₆₀ = 0.4342 mm	D ₁₅ = 0.2240 mm
D ₅₀ = 0.3807 mm	D ₁₀ = 0.1867 mm
C _u = 2.326	C _c = 1.057

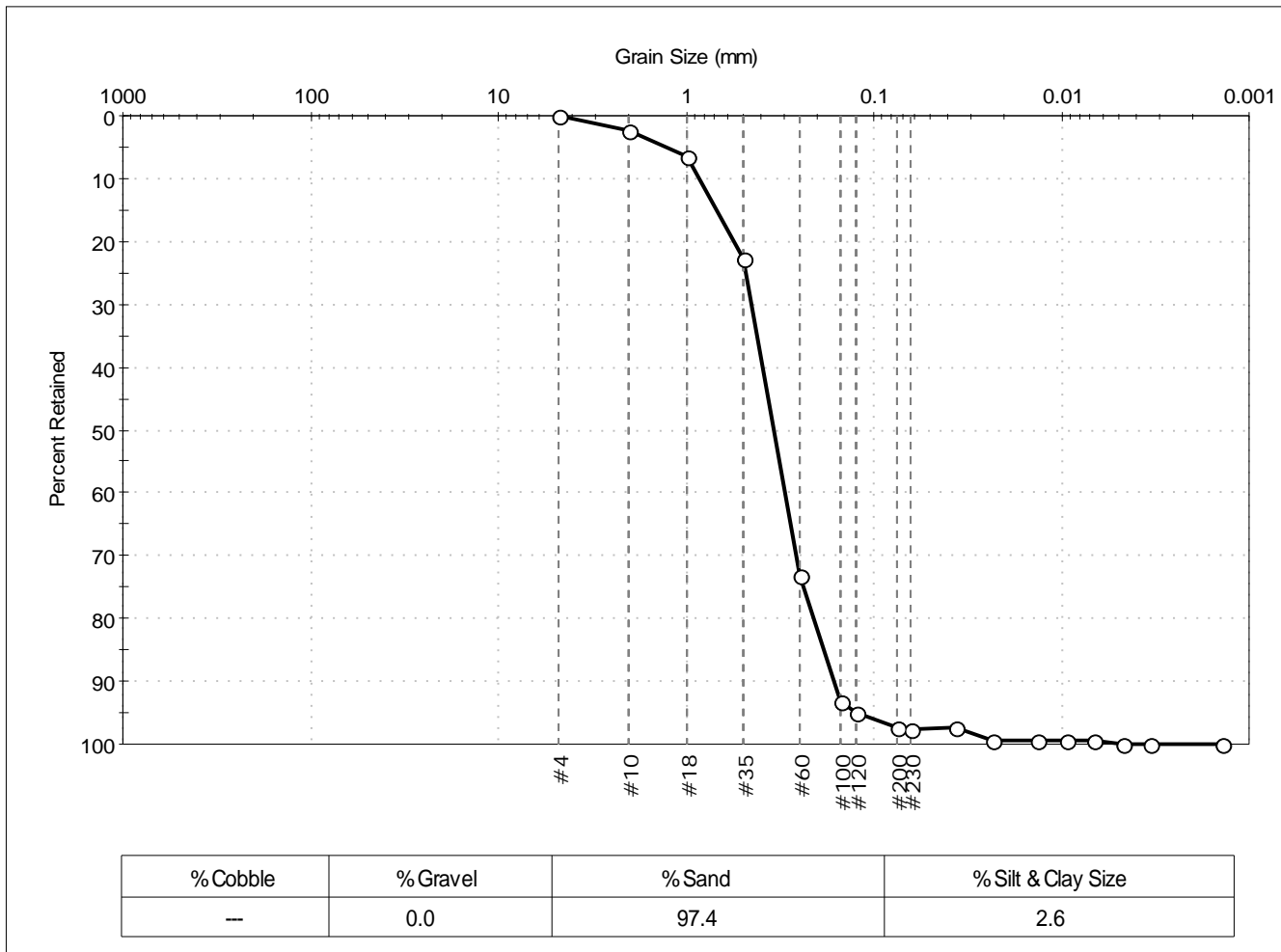
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 306-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0124	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310114		
Test Comment: ---			
Sample Description: Moist, light olive gray sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	7		
#35	0.50	23		
#60	0.25	73		
#100	0.15	93		
#120	0.12	95		
#200	0.075	97.4		
#230	0.063	98		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0364	97		
---	0.0232	99		
---	0.0134	99		
---	0.0095	99		
---	0.0067	99		
---	0.0048	100		
---	0.0034	100		
---	0.0014	100		

<u>Coefficients</u>	
D ₈₅ = 0.6977 mm	D ₃₀ = 0.2608 mm
D ₆₀ = 0.3943 mm	D ₁₅ = 0.1848 mm
D ₅₀ = 0.3435 mm	D ₁₀ = 0.1629 mm
C _u = 2.421	C _c = 1.059

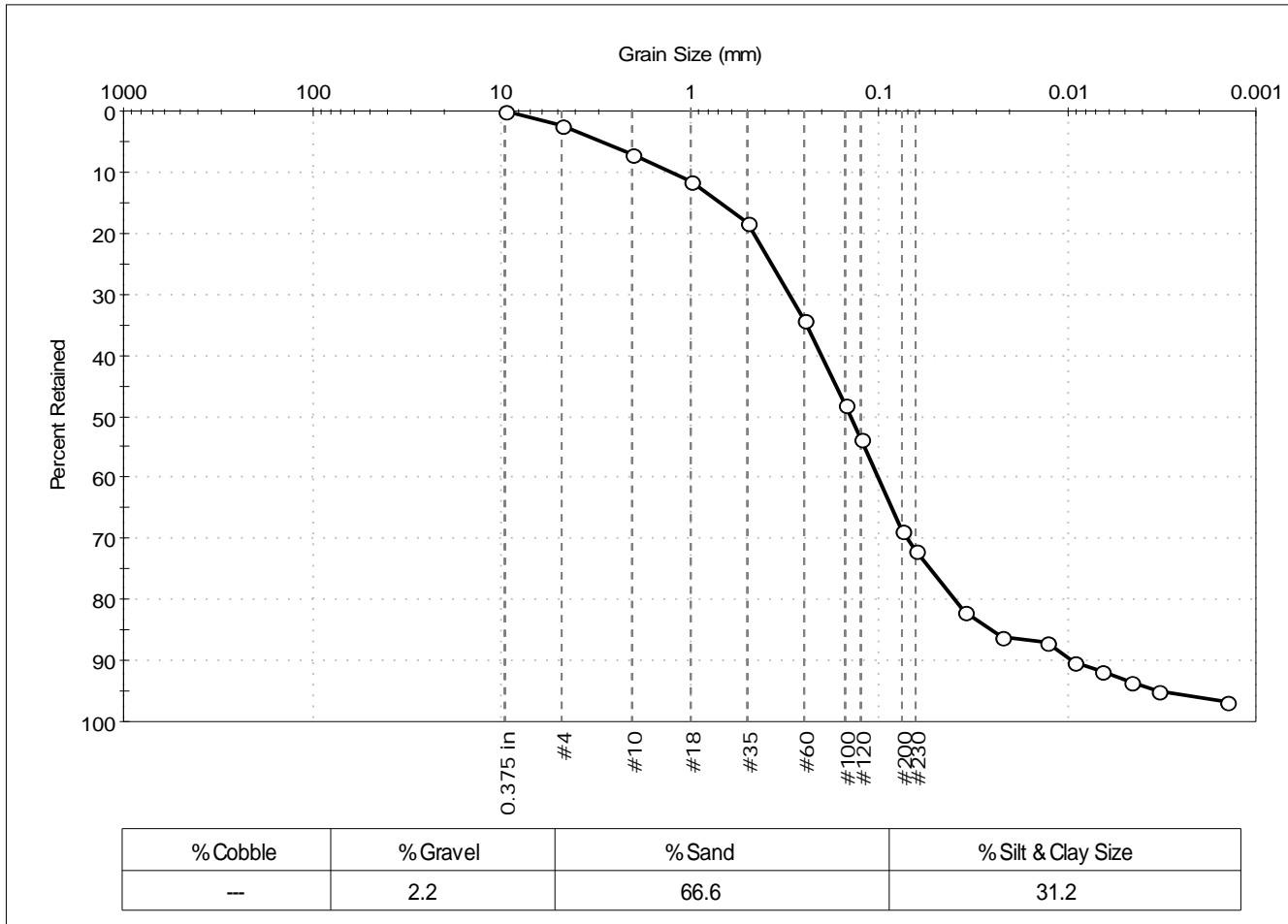
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 221-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0125	Test Date: 11/13/14	Test Id: 310116	
Depth: ---			
Test Comment: ---			
Sample Description: Moist, very dark olive gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	7		
#18	1.00	11		
#35	0.50	18		
#60	0.25	34		
#100	0.15	48		
#120	0.12	54		
#200	0.075	69		
#230	0.063	72		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0346	82		
---	0.0222	86		
---	0.0129	87		
---	0.0092	90		
---	0.0065	92		
---	0.0046	93		
---	0.0033	95		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 0.6991 mm	D ₃₀ = 0.0702 mm
D ₆₀ = 0.2028 mm	D ₁₅ = 0.0250 mm
D ₅₀ = 0.1412 mm	D ₁₀ = 0.0094 mm
C _u = 21.574	C _c = 2.585

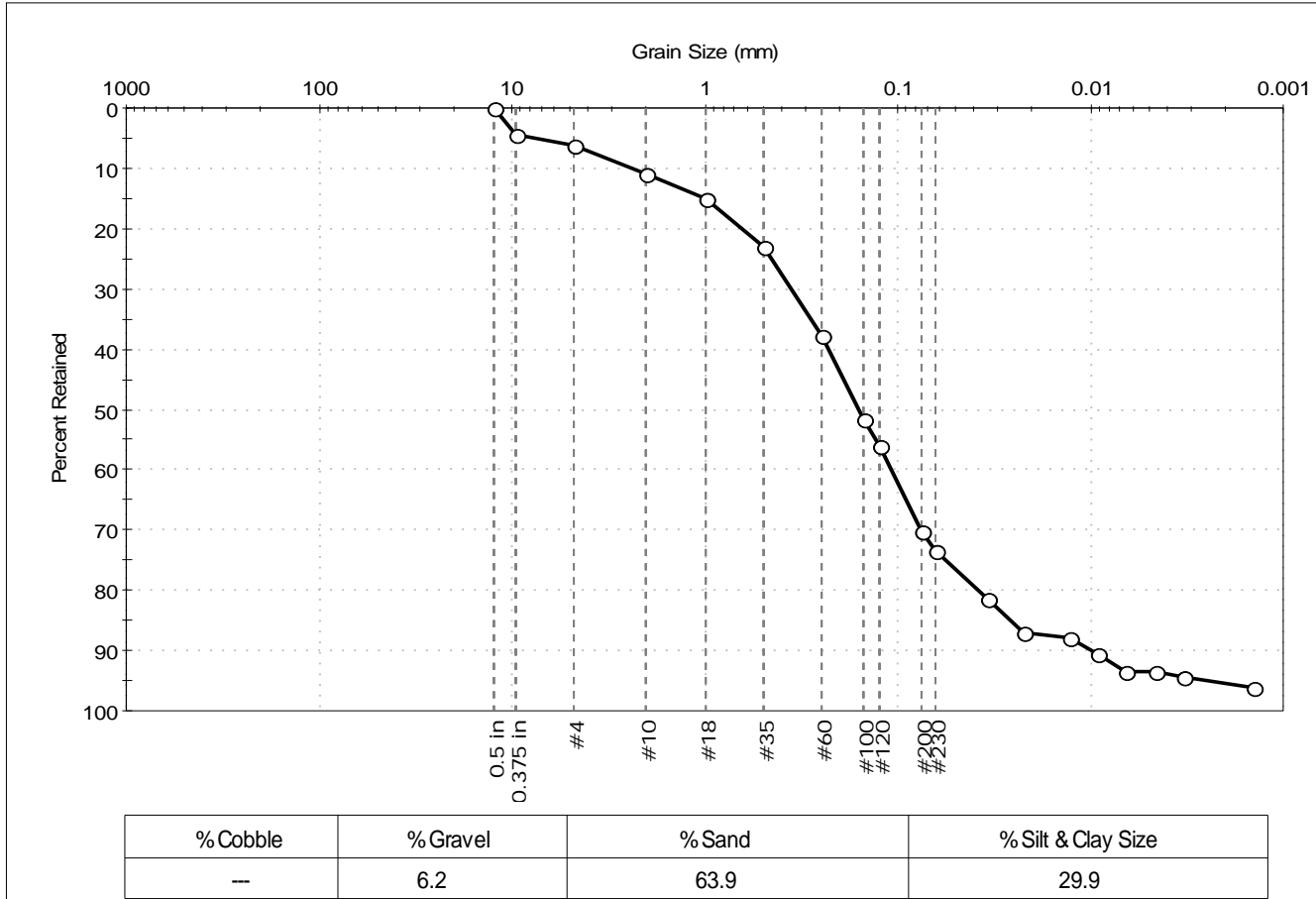
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Gravel and Sand (A-2-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 221-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0125DUP	Test Date: 11/17/14	Depth: ---	Test Id: 313929
Test Comment: ---	Sample Description: Moist, very dark olive gray silty sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	4		
#4	4.75	6		
#10	2.00	11		
#18	1.00	15		
#35	0.50	23		
#60	0.25	38		
#100	0.15	52		
#120	0.12	56		
#200	0.075	70		
#230	0.063	74		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0345	81		
---	0.0223	87		
---	0.0129	88		
---	0.0092	91		
---	0.0066	93		
---	0.0046	93		
---	0.0033	94		
---	0.0014	96		

Coefficients

D ₈₅ = 1.0227 mm	D ₃₀ = 0.0754 mm
D ₆₀ = 0.2296 mm	D ₁₅ = 0.0261 mm
D ₅₀ = 0.1589 mm	D ₁₀ = 0.0100 mm
C _u = 22.960	C _c = 2.476

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

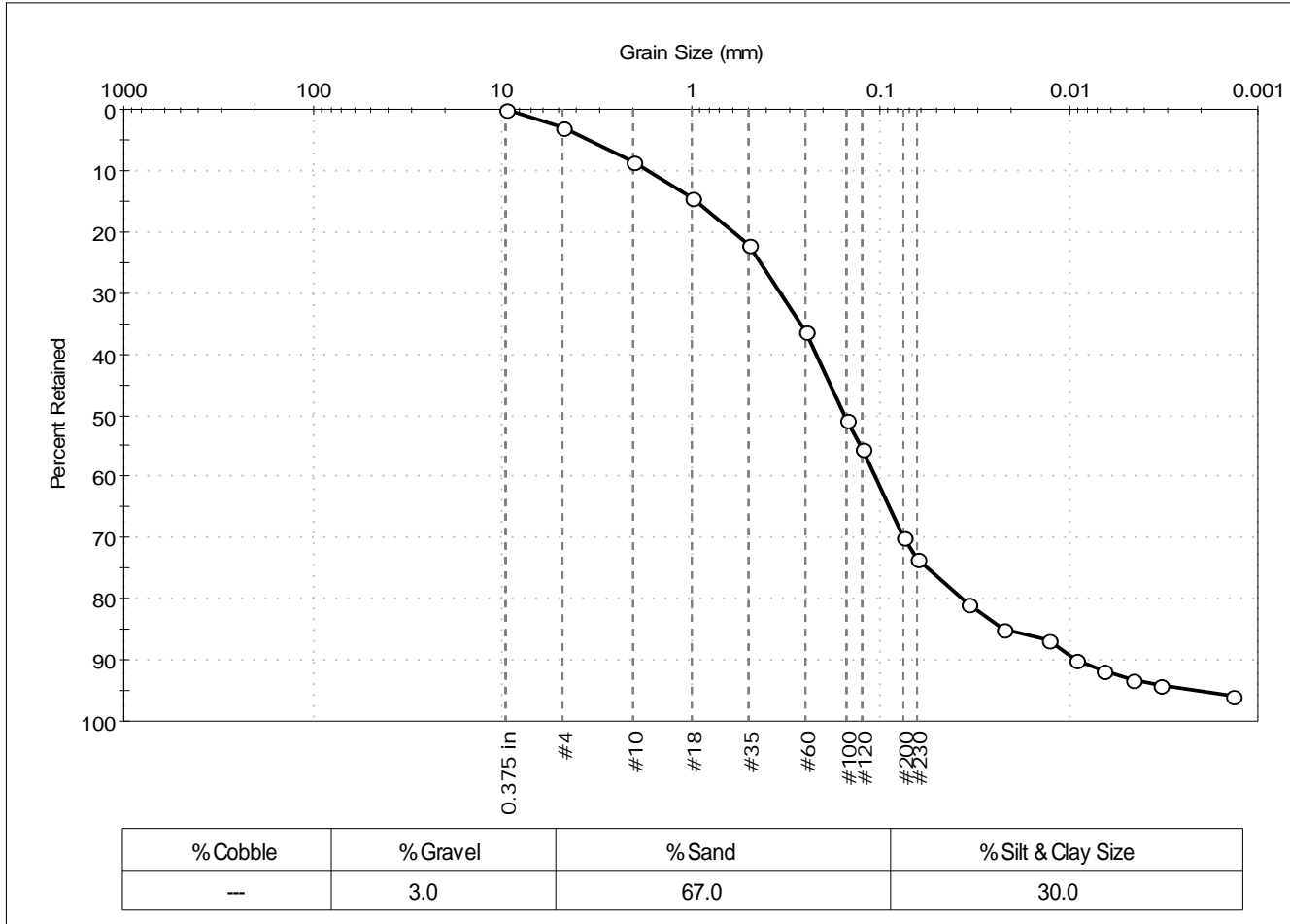
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	221-14LTM	Sample Type:	bag
Sample ID:	NBH14-0126	Test Date:	11/06/14
Depth:	---	Test Id:	310117
Test Comment:	---		
Sample Description:	Moist, dark olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	9		
#18	1.00	15		
#35	0.50	22		
#60	0.25	36		
#100	0.15	51		
#120	0.12	55		
#200	0.075	70		
#230	0.063	73		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0345	81		
---	0.0222	85		
---	0.0129	87		
---	0.0092	90		
---	0.0065	92		
---	0.0047	93		
---	0.0033	94		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.9625 mm	D ₃₀ = 0.0748 mm
D ₆₀ = 0.2185 mm	D ₁₅ = 0.0222 mm
D ₅₀ = 0.1538 mm	D ₁₀ = 0.0092 mm
C _u = 23.750	C _c = 2.783

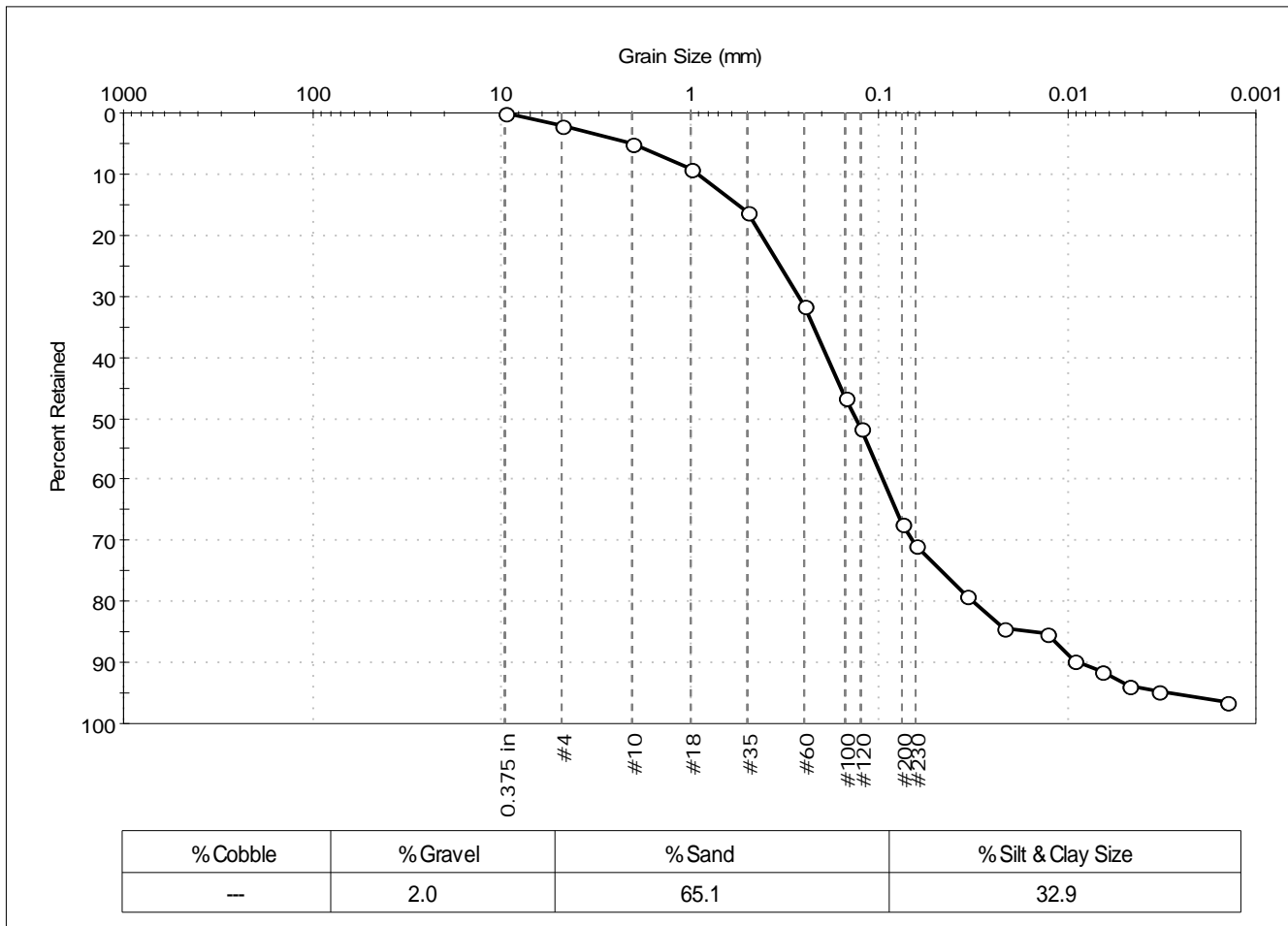
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 221-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0127	Test Date: 11/13/14	Test Id: 310118	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	5		
#18	1.00	9		
#35	0.50	16		
#60	0.25	32		
#100	0.15	47		
#120	0.12	52		
#200	0.075	67		
#230	0.063	71		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0343	79		
---	0.0219	84		
---	0.0128	85		
---	0.0092	90		
---	0.0065	91		
---	0.0047	94		
---	0.0033	95		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 0.5664 mm	D ₃₀ = 0.0652 mm
D ₆₀ = 0.1880 mm	D ₁₅ = 0.0146 mm
D ₅₀ = 0.1330 mm	D ₁₀ = 0.0084 mm
C _u = 22.381	C _c = 2.692

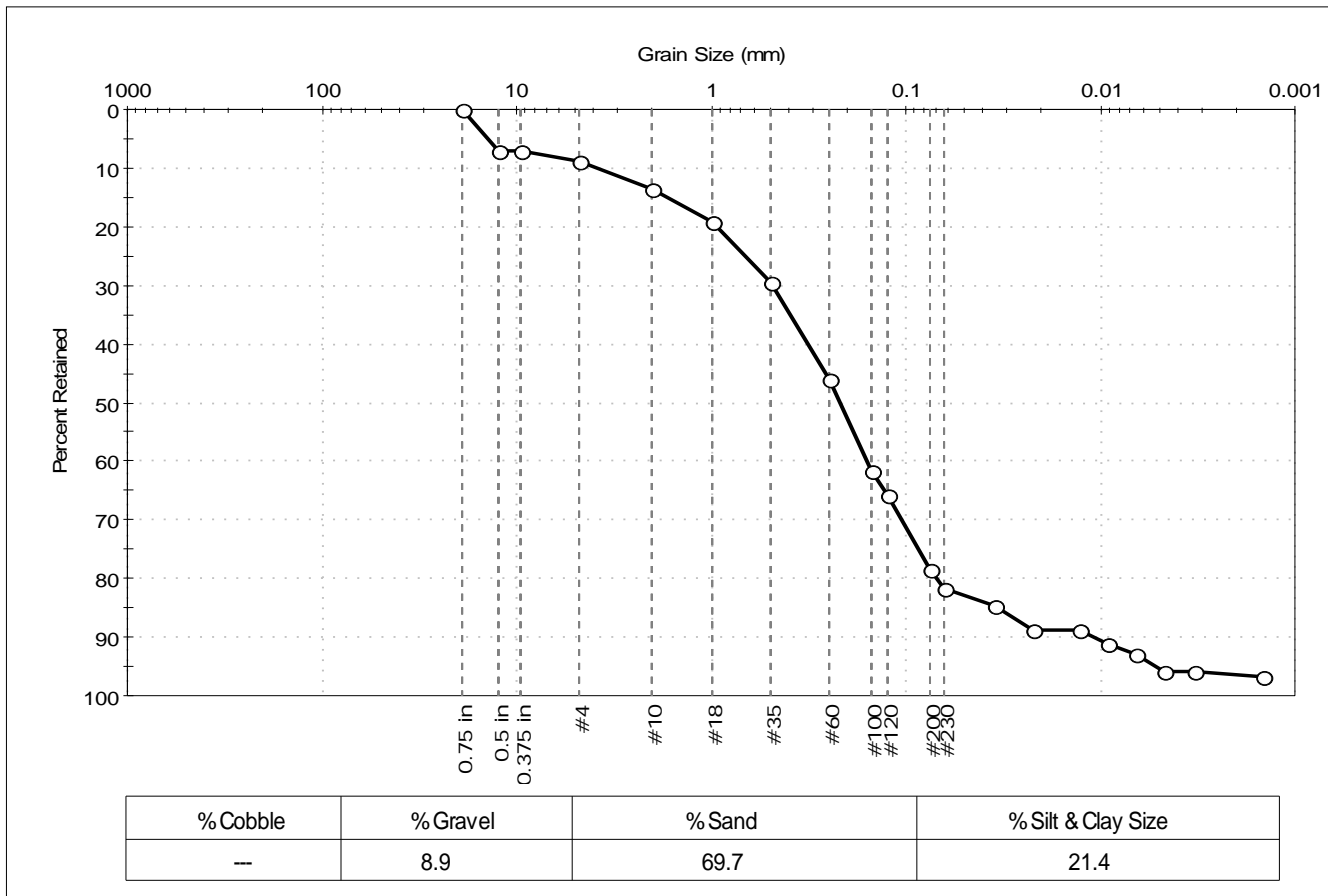
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Gravel and Sand (A-2-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 221-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0128	Test Date: 11/08/14	Test Id: 310119	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	7		
0.375 in	9.50	7		
#4	4.75	9		
#10	2.00	14		
#18	1.00	19		
#35	0.50	30		
#60	0.25	46		
#100	0.15	62		
#120	0.12	66		
#200	0.075	79		
#230	0.063	82		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0348	85		
---	0.0224	89		
---	0.0129	89		
---	0.0092	91		
---	0.0066	93		
---	0.0047	96		
---	0.0033	96		
---	0.0015	97		

<u>Coefficients</u>	
D ₈₅ = 1.6742 mm	D ₃₀ = 0.1057 mm
D ₆₀ = 0.3211 mm	D ₁₅ = 0.0340 mm
D ₅₀ = 0.2189 mm	D ₁₀ = 0.0109 mm
C _u = 29.459	C _c = 3.192

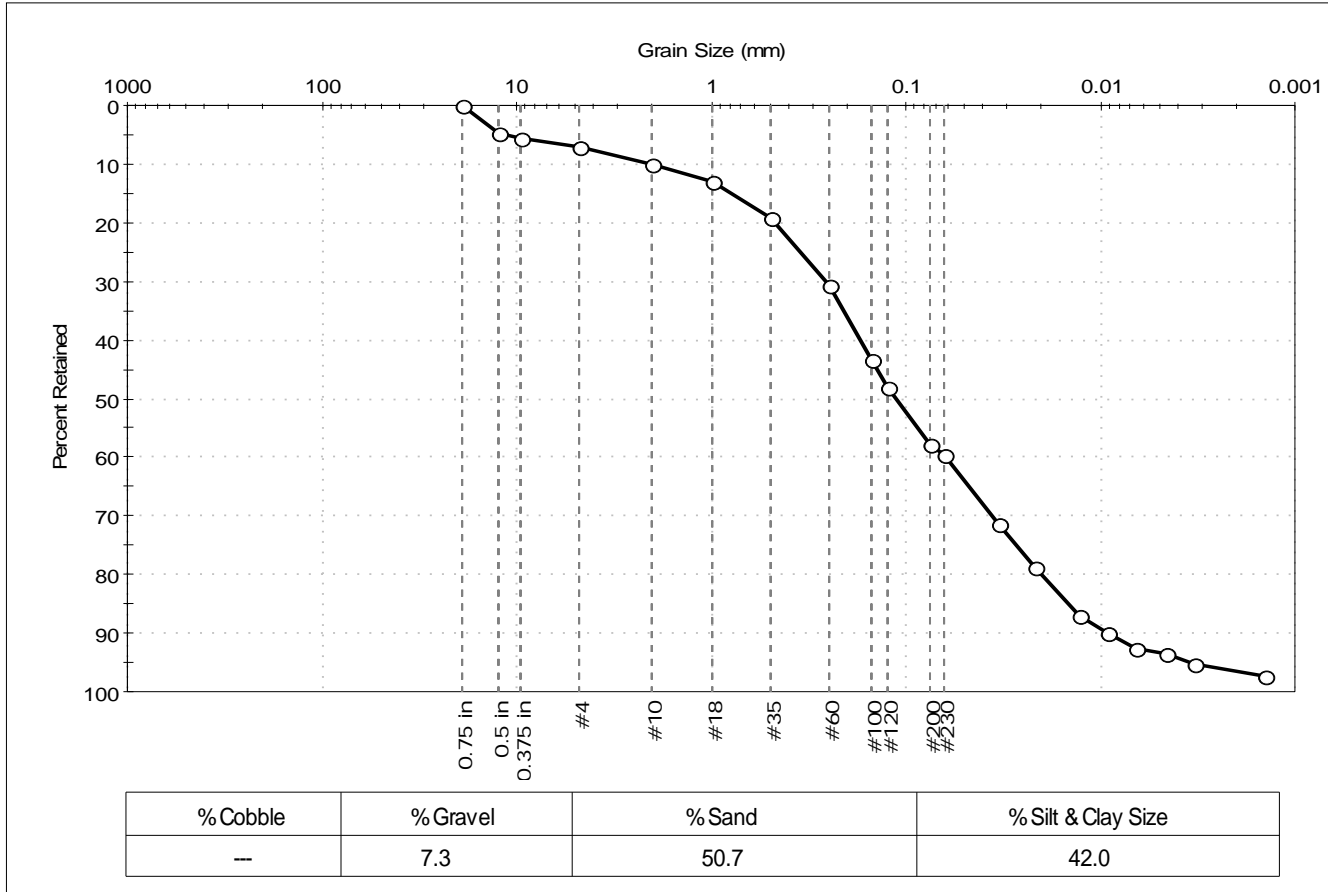
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ROUNDED	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 249-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0129	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310120		
Test Comment: ---			
Sample Description: Moist, very dark olive gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	5		
0.375 in	9.50	6		
#4	4.75	7		
#10	2.00	10		
#18	1.00	13		
#35	0.50	19		
#60	0.25	31		
#100	0.15	43		
#120	0.12	48		
#200	0.075	58		
#230	0.063	59		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	71		
---	0.0217	79		
---	0.0129	87		
---	0.0092	90		
---	0.0066	93		
---	0.0047	94		
---	0.0033	95		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 0.8023 mm	D ₃₀ = 0.0360 mm
D ₆₀ = 0.1709 mm	D ₁₅ = 0.0147 mm
D ₅₀ = 0.1134 mm	D ₁₀ = 0.0091 mm
C _u = 18.780	C _c = 0.833

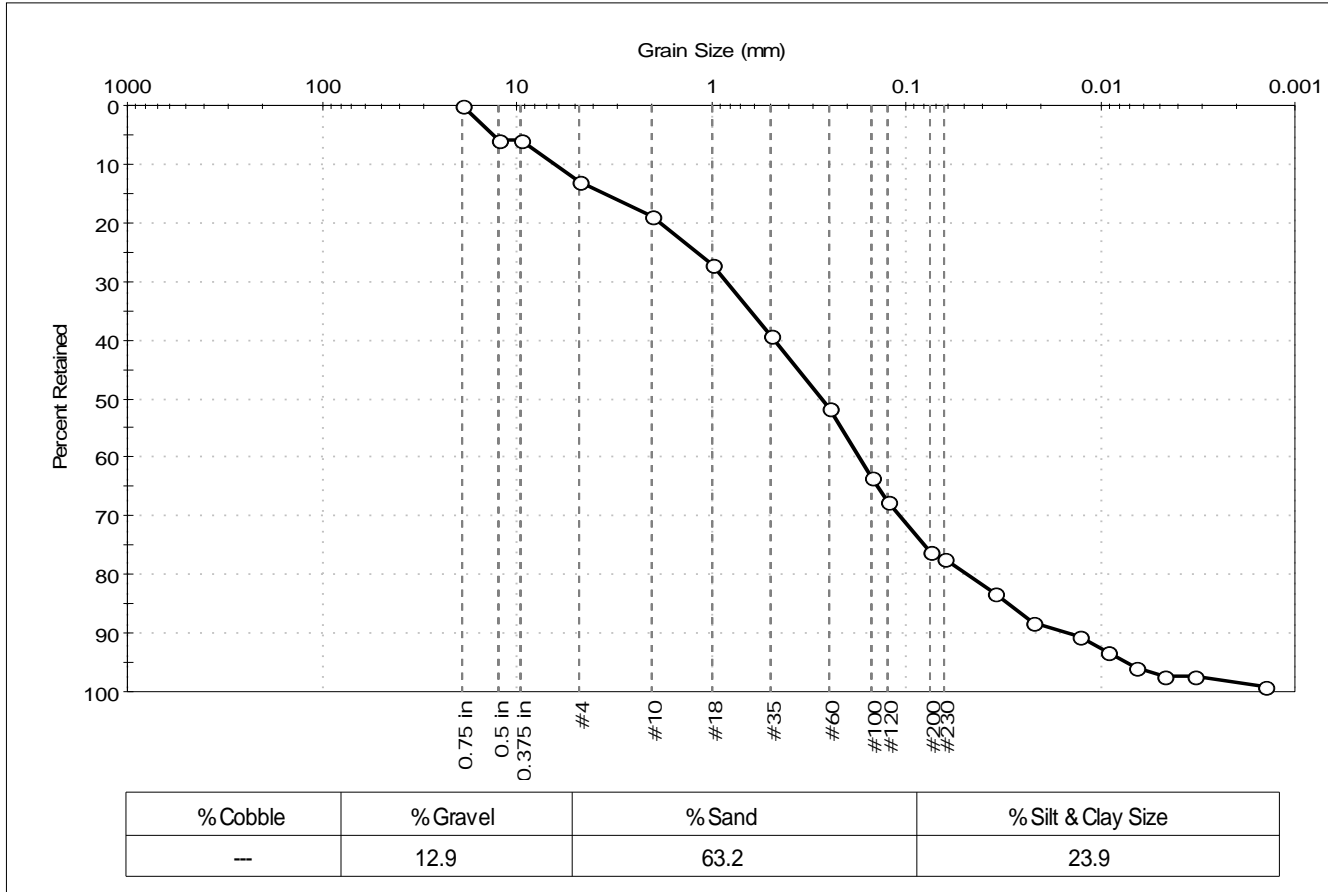
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 249-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0130	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310121		
Test Comment: ---			
Sample Description: Moist, very dark olive gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	6		
0.375 in	9.50	6		
#4	4.75	13		
#10	2.00	19		
#18	1.00	27		
#35	0.50	39		
#60	0.25	52		
#100	0.15	63		
#120	0.12	68		
#200	0.075	76		
#230	0.063	77		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0347	83		
---	0.0223	88		
---	0.0130	91		
---	0.0093	93		
---	0.0066	96		
---	0.0047	97		
---	0.0033	97		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 3.5512 mm	D ₃₀ = 0.1086 mm
D ₆₀ = 0.4806 mm	D ₁₅ = 0.0293 mm
D ₅₀ = 0.2733 mm	D ₁₀ = 0.0150 mm
C _u = 32.040	C _c = 1.636

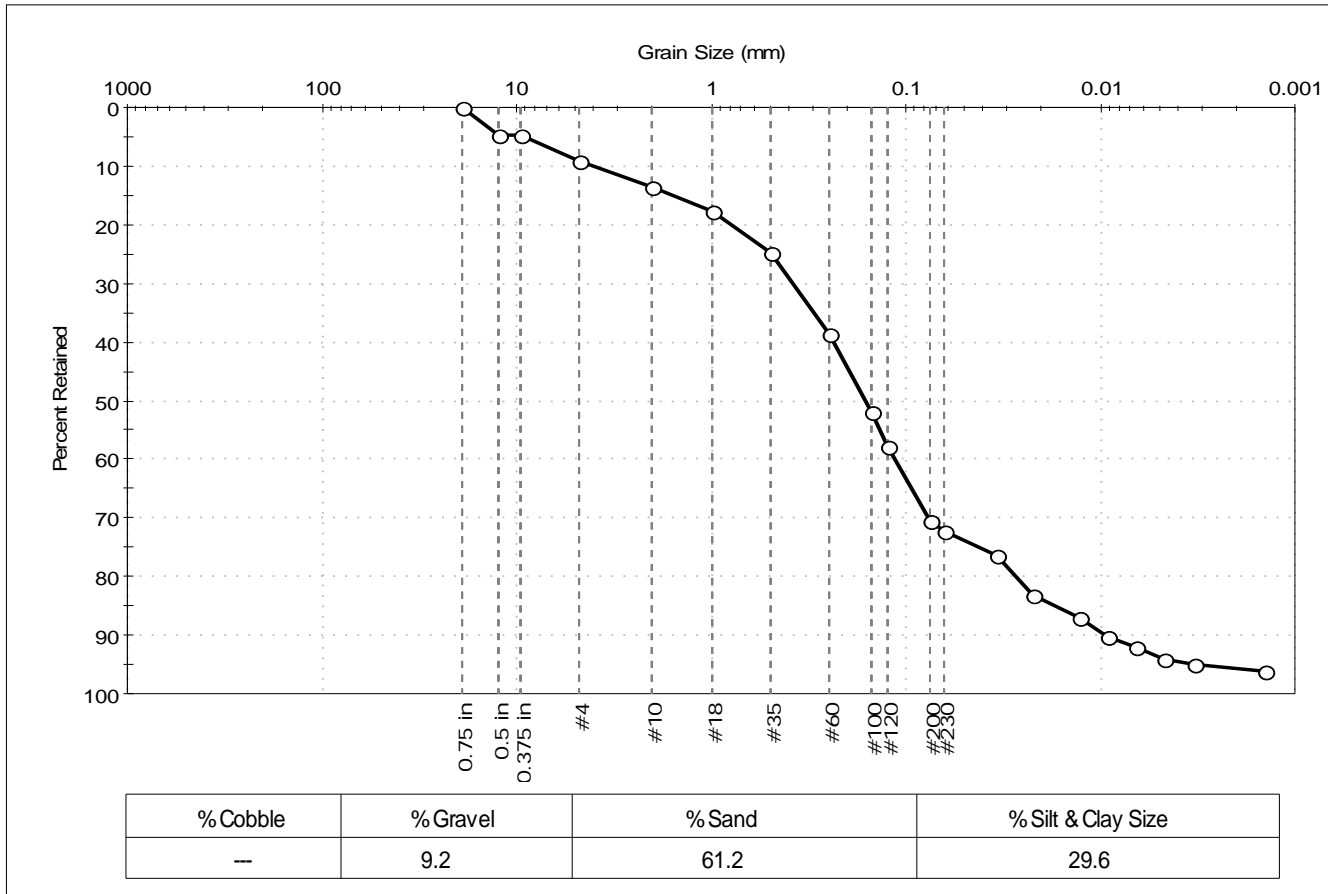
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	249-14LTM	Sample Type:	bag
Sample ID:	NBH14-0131	Test Date:	11/12/14
Depth:	---	Test Id:	310122
Test Comment:	---		
Sample Description:	Moist, very dark olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	5		
0.375 in	9.50	5		
#4	4.75	9		
#10	2.00	14		
#18	1.00	18		
#35	0.50	25		
#60	0.25	39		
#100	0.15	52		
#120	0.12	58		
#200	0.075	70		
#230	0.063	72		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	76		
---	0.0222	83		
---	0.0130	87		
---	0.0092	90		
---	0.0066	92		
---	0.0047	94		
---	0.0033	95		
---	0.0014	96		

Coefficients

D ₈₅ = 1.5748 mm	D ₃₀ = 0.0761 mm
D ₆₀ = 0.2370 mm	D ₁₅ = 0.0174 mm
D ₅₀ = 0.1615 mm	D ₁₀ = 0.0094 mm
C _u = 25.213	C _c = 2.600

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

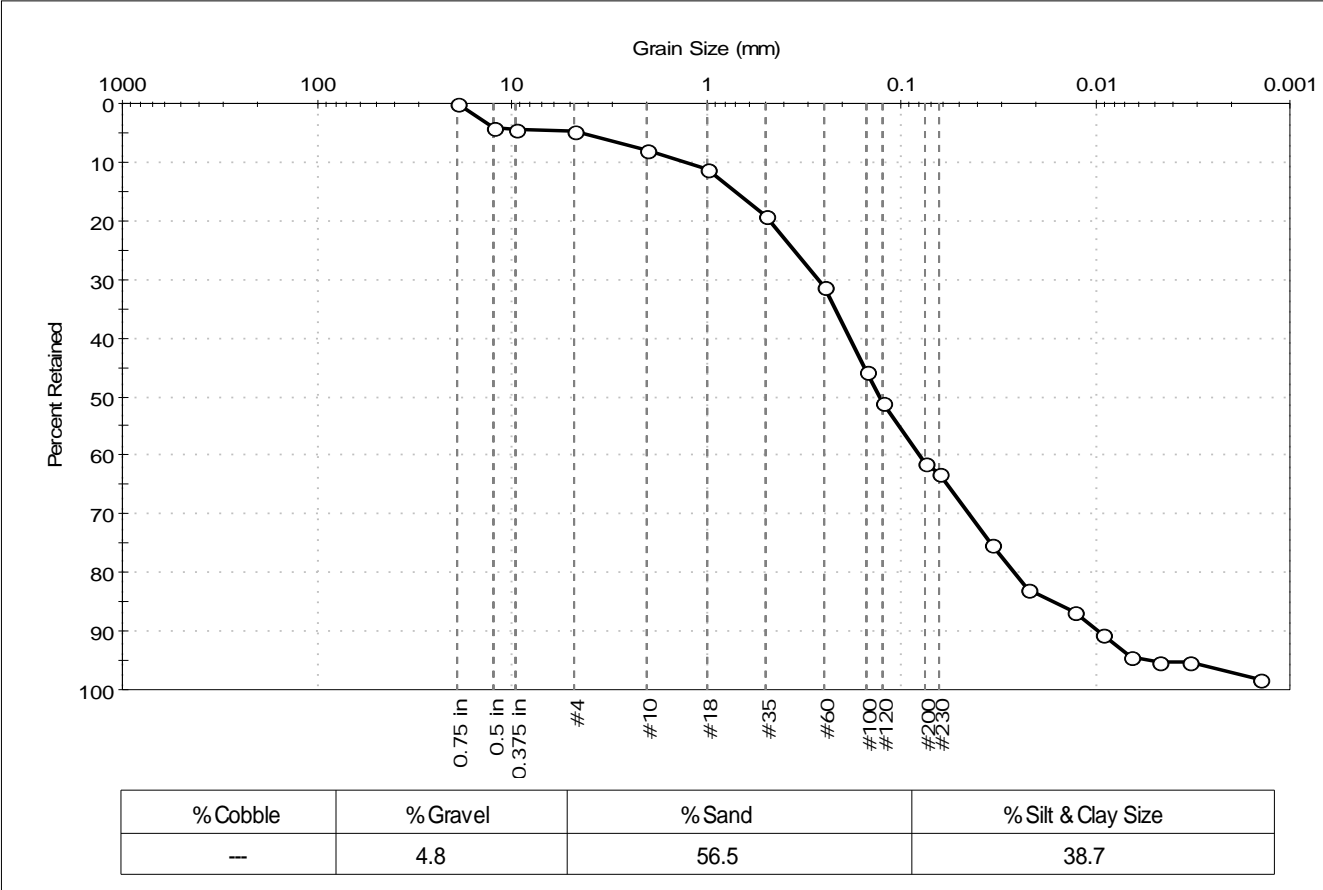
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 249-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0132	Test Date: 11/06/14	Test Id: 310123	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	4		
0.375 in	9.50	4		
#4	4.75	5		
#10	2.00	8		
#18	1.00	11		
#35	0.50	19		
#60	0.25	31		
#100	0.15	46		
#120	0.12	51		
#200	0.075	61		
#230	0.063	63		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0339	75		
---	0.0222	83		
---	0.0129	87		
---	0.0092	90		
---	0.0066	94		
---	0.0047	95		
---	0.0033	95		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 0.7240 mm	D ₃₀ = 0.0442 mm
D ₆₀ = 0.1839 mm	D ₁₅ = 0.0163 mm
D ₅₀ = 0.1294 mm	D ₁₀ = 0.0096 mm
C _u = 19.156	C _c = 1.107

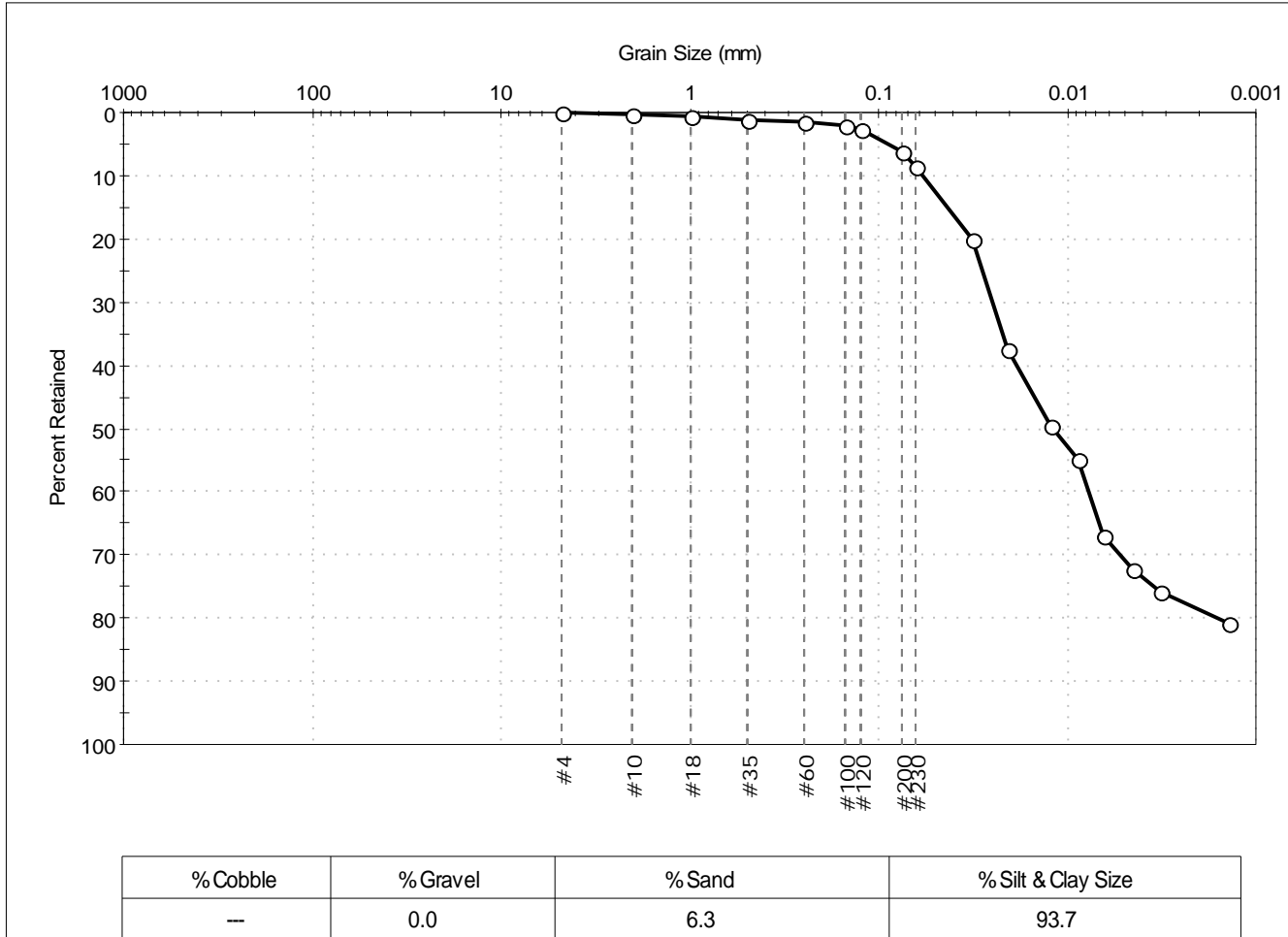
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 317-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0133	Test Date: 11/12/14	Test Id: 310124	
Depth: ---	Test Comment: ---	Sample Description: Moist, gary silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	2		
#100	0.15	2		
#120	0.12	3		
#200	0.075	6		
#230	0.063	9		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	20		
---	0.0209	37		
---	0.0124	50		
---	0.0088	55		
---	0.0064	67		
---	0.0045	72		
---	0.0032	76		
---	0.0014	81		

Coefficients	
D ₈₅ = 0.0432 mm	D ₃₀ = 0.0052 mm
D ₆₀ = 0.0187 mm	D ₁₅ = N/A
D ₅₀ = 0.0121 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

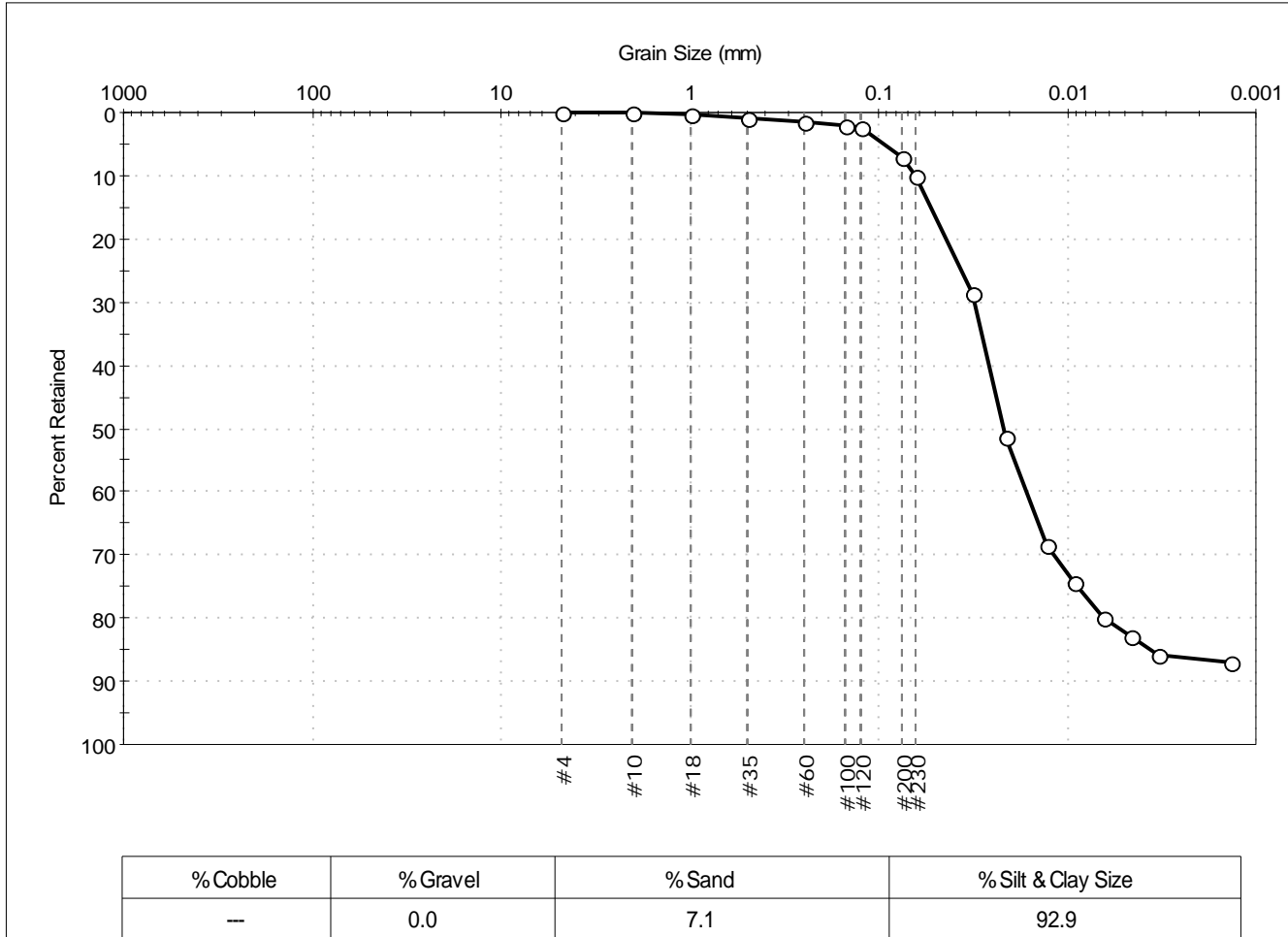
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Specific Gravity	: 2.65
Separation of Sample	: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	317-14LTM	Sample Type:	bag
Sample ID:	NBH14-0134	Test Date:	11/13/14
Depth:	---	Test Id:	310125
Test Comment:	---		
Sample Description:	Moist, dark gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	2		
#100	0.15	2		
#120	0.12	2		
#200	0.075	7		
#230	0.063	10		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0318	29		
---	0.0212	51		
---	0.0127	69		
---	0.0091	74		
---	0.0065	80		
---	0.0046	83		
---	0.0033	86		
---	0.0014	87		

<u>Coefficients</u>	
D ₈₅ = 0.0526 mm	D ₃₀ = 0.0117 mm
D ₆₀ = 0.0259 mm	D ₁₅ = 0.0036 mm
D ₅₀ = 0.0217 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

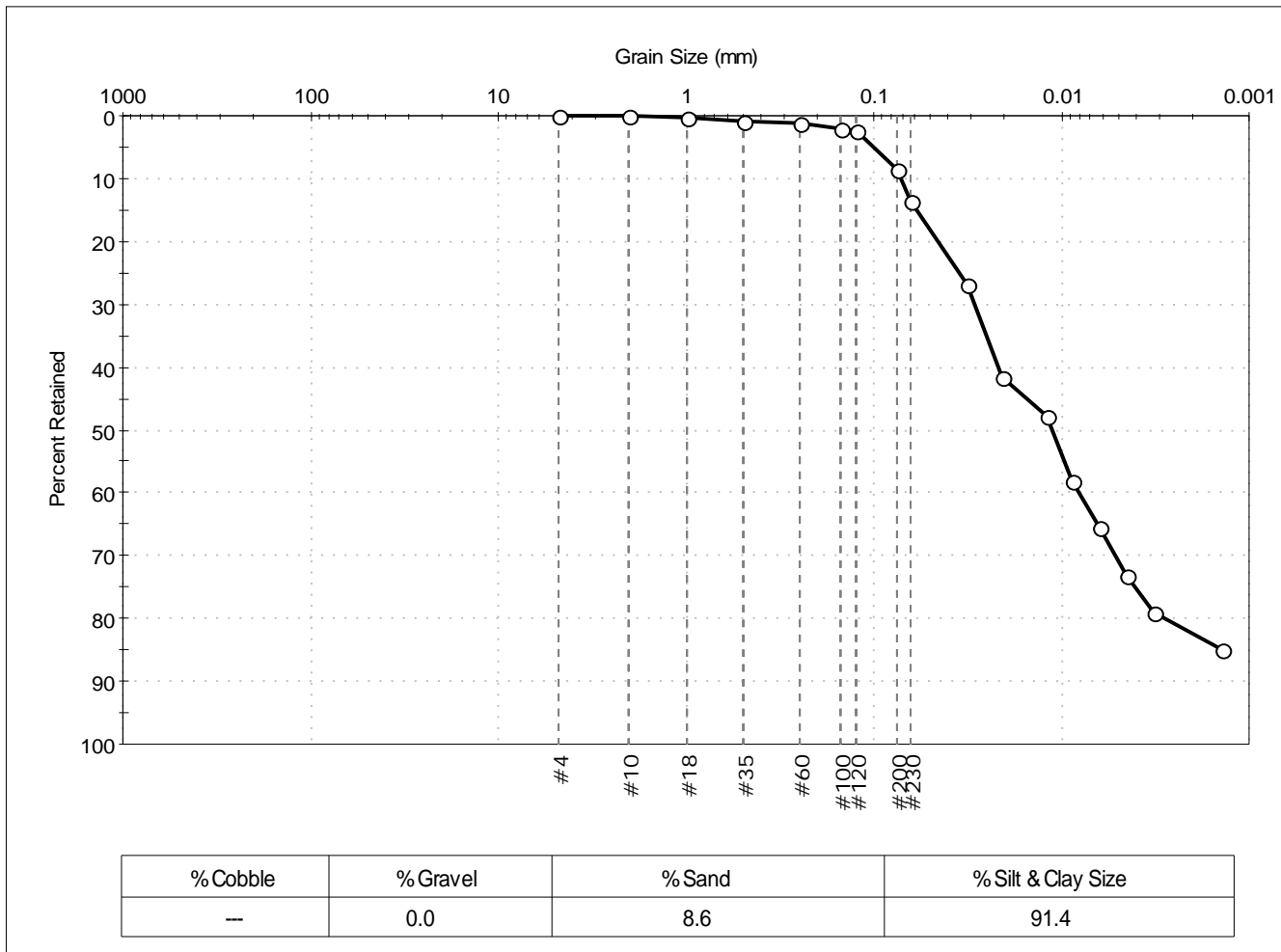
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 317-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0135	Test Date: 11/13/14	Test Id: 310126	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	9		
#230	0.063	14		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	27		
---	0.0207	42		
---	0.0121	48		
---	0.0087	58		
---	0.0063	66		
---	0.0045	73		
---	0.0032	79		
---	0.0014	85		

<u>Coefficients</u>	
D ₈₅ = 0.0589 mm	D ₃₀ = 0.0052 mm
D ₆₀ = 0.0217 mm	D ₁₅ = 0.0014 mm
D ₅₀ = 0.0113 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

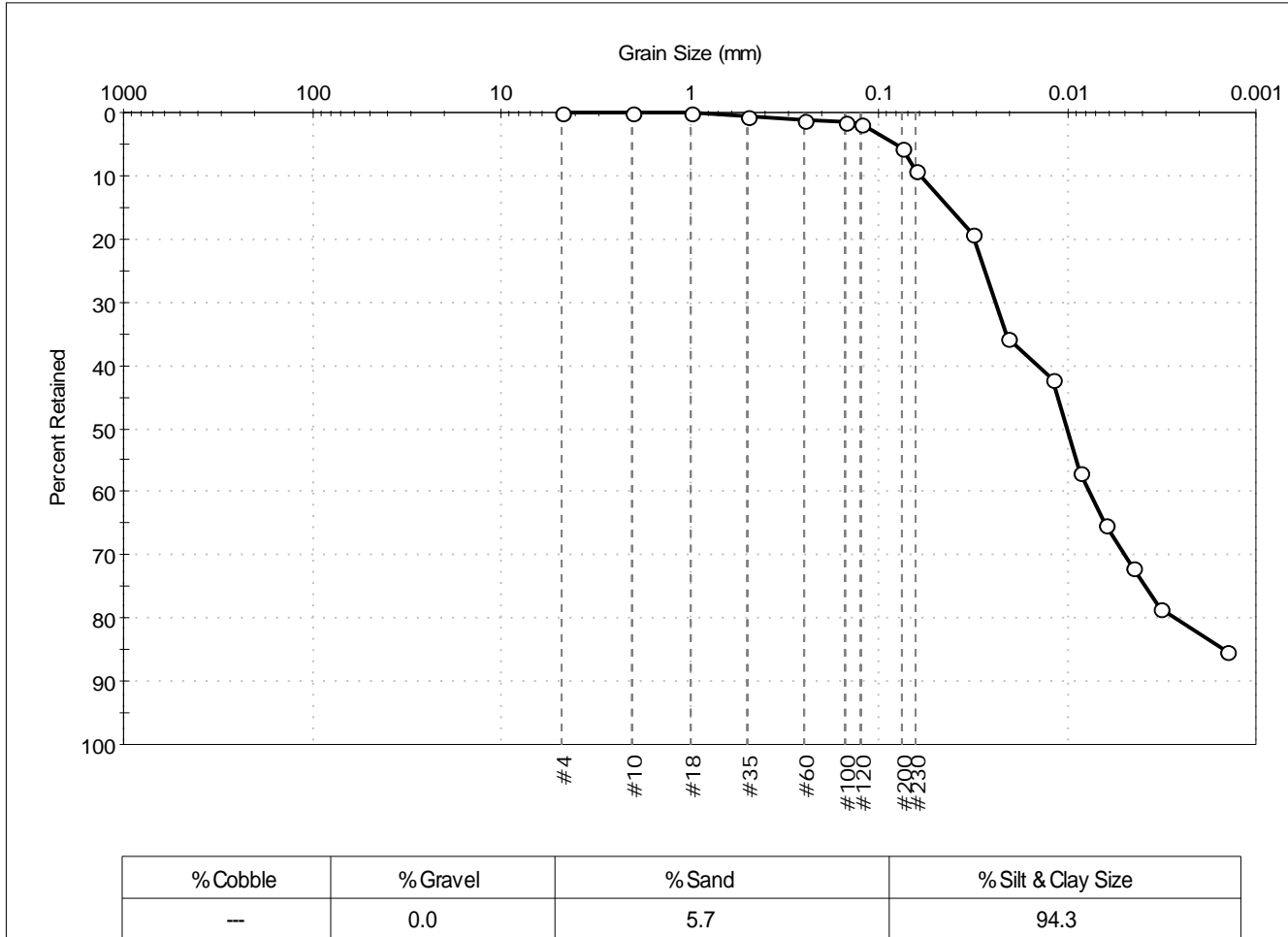
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	317-14LTM	Sample Type:	bag
Sample ID:	NBH14-0136	Test Date:	11/13/14
Depth:	---	Test Id:	310127
Test Comment:	---		
Sample Description:	Moist, dark olive gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	6		
#230	0.063	9		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0317	19		
---	0.0207	36		
---	0.0121	42		
---	0.0087	57		
---	0.0063	65		
---	0.0045	72		
---	0.0032	79		
---	0.0014	85		

<u>Coefficients</u>	
D ₈₅ = 0.0419 mm	D ₃₀ = 0.0050 mm
D ₆₀ = 0.0145 mm	D ₁₅ = 0.0014 mm
D ₅₀ = 0.0102 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

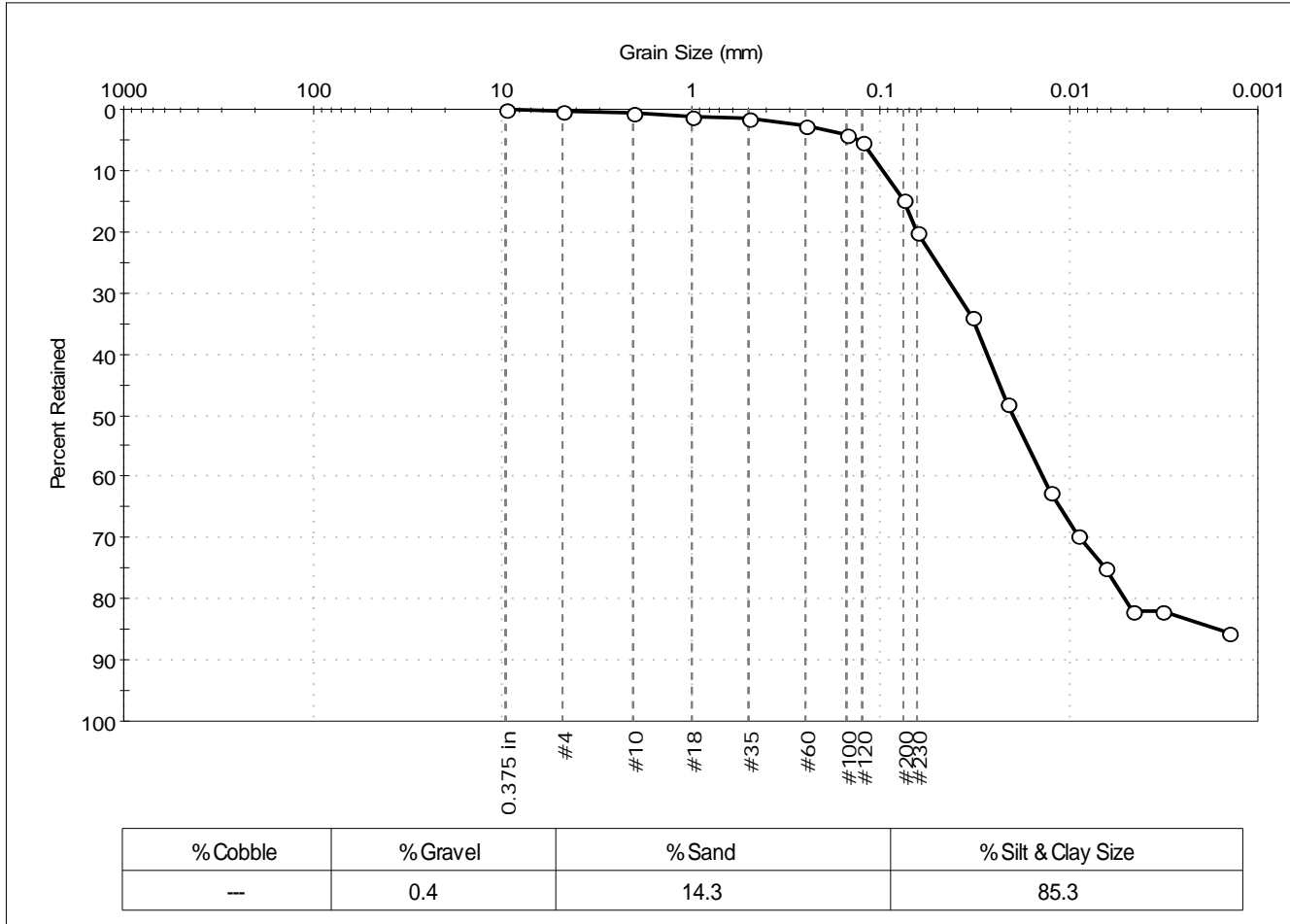
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	309-14LTM	Sample Type:	bag
Sample ID:	NBH14-0137	Test Date:	11/08/14
Depth:	---	Test Id:	310128
Test Comment:	---		
Sample Description:	Moist, very dark gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	1		
#18	1.00	1		
#35	0.50	2		
#60	0.25	3		
#100	0.15	4		
#120	0.12	5		
#200	0.075	15		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0329	34		
---	0.0214	48		
---	0.0126	62		
---	0.0090	70		
---	0.0065	75		
---	0.0046	82		
---	0.0032	82		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.0742 mm	D ₃₀ = 0.0088 mm
D ₆₀ = 0.0273 mm	D ₁₅ = 0.0017 mm
D ₅₀ = 0.0199 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

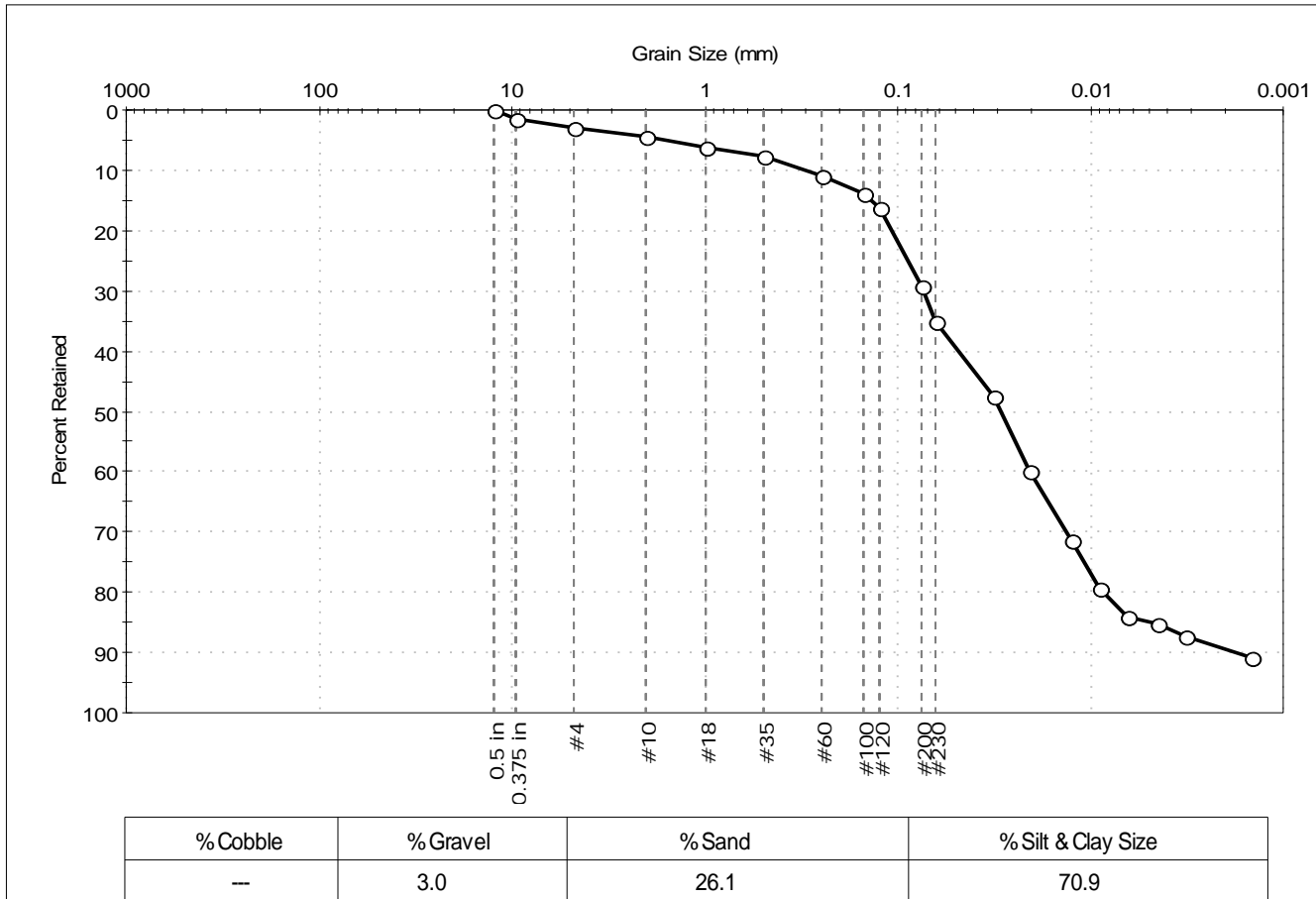
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	309-14LTM	Sample Type:	bag
Sample ID:	NBH14-0138	Test Date:	11/08/14
Depth:	---	Test Id:	310129
Test Comment:	---		
Sample Description:	Moist, very dark gray silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	3		
#10	2.00	4		
#18	1.00	6		
#35	0.50	8		
#60	0.25	11		
#100	0.15	14		
#120	0.12	16		
#200	0.075	29		
#230	0.063	35		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0319	47		
---	0.0209	60		
---	0.0125	71		
---	0.0090	79		
---	0.0064	84		
---	0.0045	85		
---	0.0032	87		
---	0.0015	91		

Coefficients

D ₈₅ = 0.1380 mm	D ₃₀ = 0.0133 mm
D ₆₀ = 0.0480 mm	D ₁₅ = 0.0047 mm
D ₅₀ = 0.0293 mm	D ₁₀ = 0.0018 mm
C _u = 26.667	C _c = 2.047

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

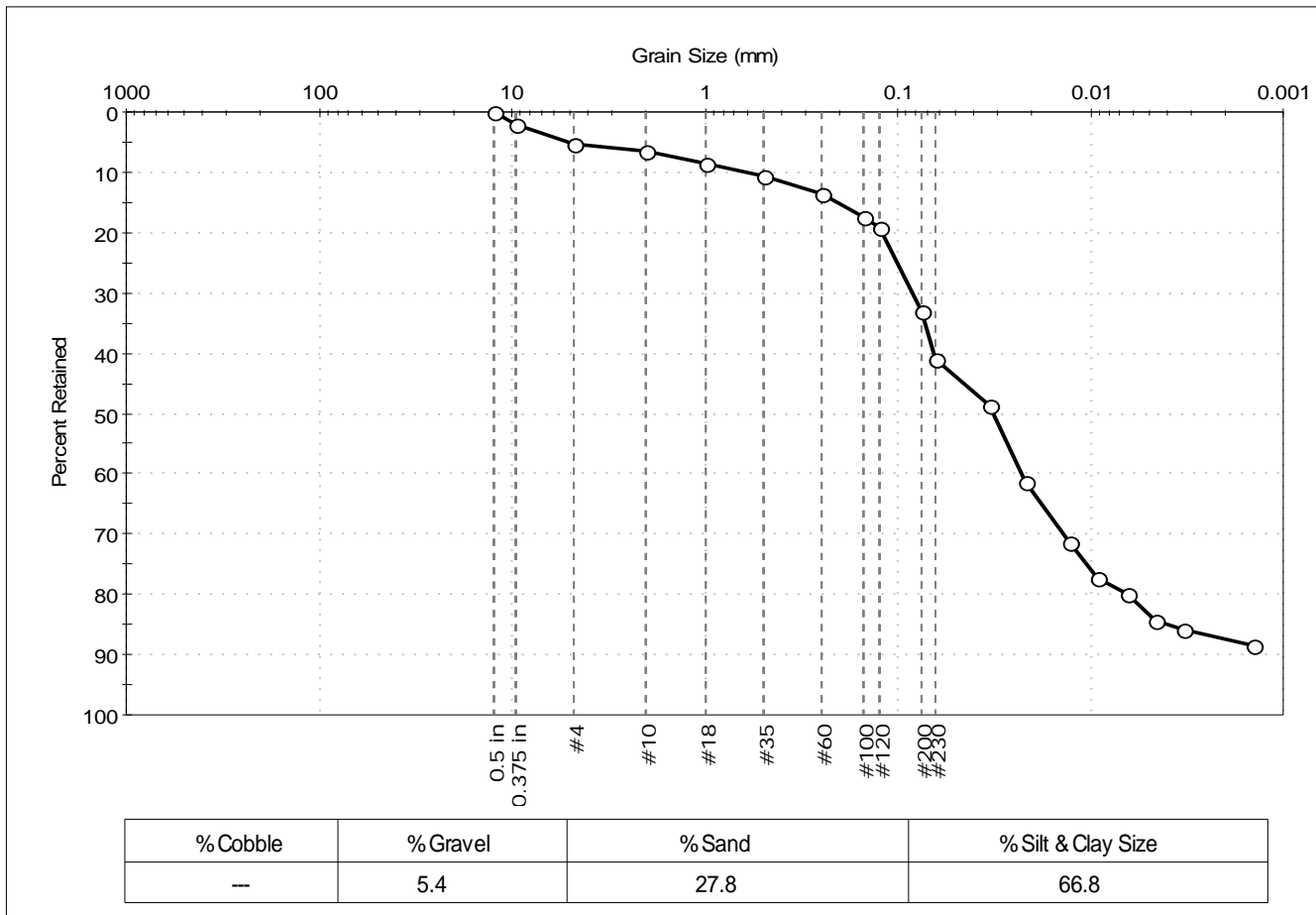
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 309-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0139	Test Date: 11/13/14	Depth: ---	Test Id: 310130
Test Comment: ---	Sample Description: Moist, very dark olive gray sandy silt	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	2		
#4	4.75	5		
#10	2.00	7		
#18	1.00	9		
#35	0.50	11		
#60	0.25	14		
#100	0.15	17		
#120	0.12	19		
#200	0.075	33		
#230	0.063	41		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	49		
---	0.0216	61		
---	0.0127	71		
---	0.0091	77		
---	0.0065	80		
---	0.0046	84		
---	0.0033	86		
---	0.0014	89		

Coefficients

D ₈₅ = 0.2077 mm	D ₃₀ = 0.0137 mm
D ₆₀ = 0.0646 mm	D ₁₅ = 0.0039 mm
D ₅₀ = 0.0317 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

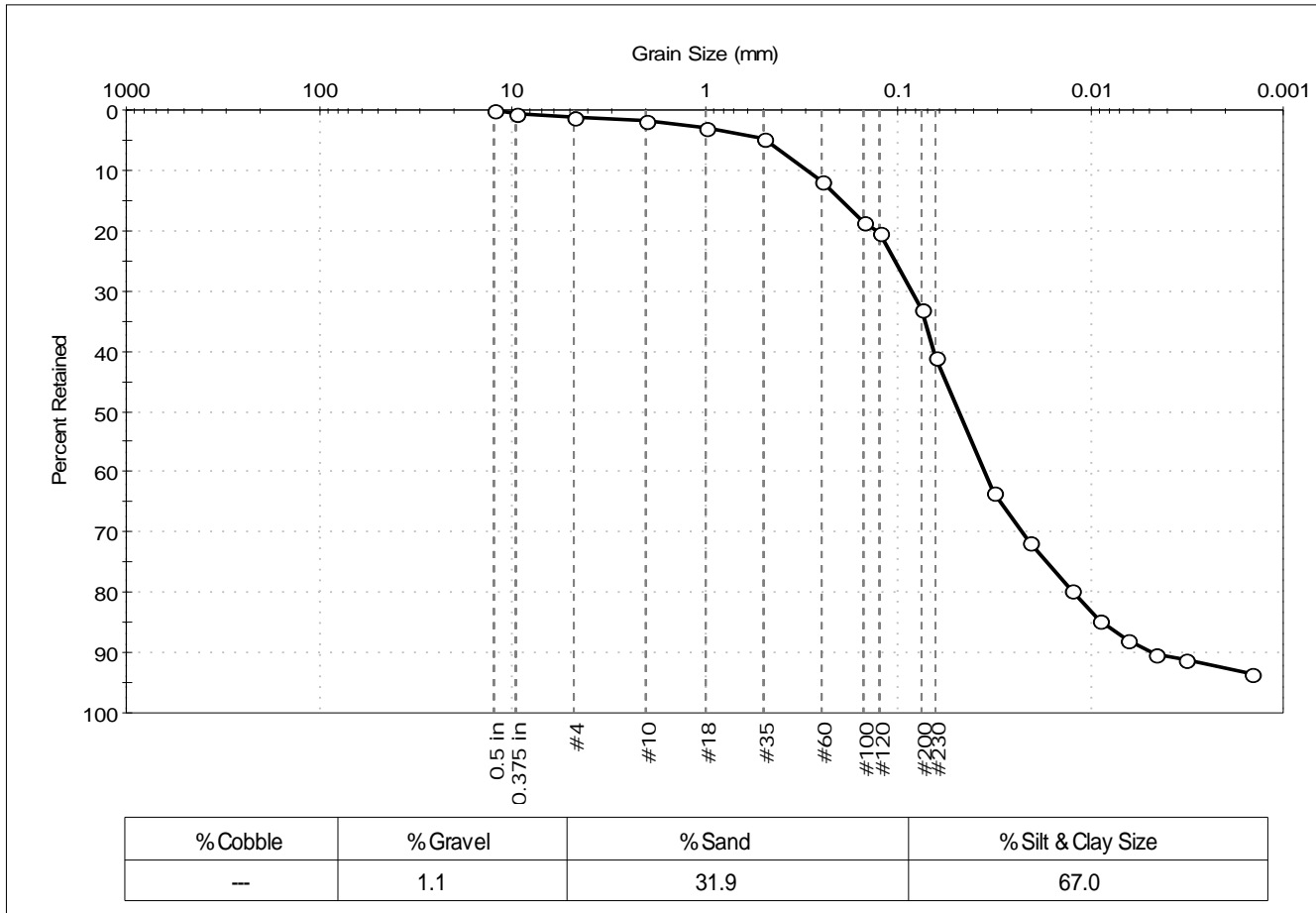
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 309-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0140	Test Date: 11/08/14	Test Id: 310131	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark grayish brown sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	1		
#10	2.00	2		
#18	1.00	3		
#35	0.50	5		
#60	0.25	12		
#100	0.15	19		
#120	0.12	20		
#200	0.075	33		
#230	0.063	41		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	64		
---	0.0209	72		
---	0.0125	80		
---	0.0090	85		
---	0.0064	88		
---	0.0046	90		
---	0.0033	91		
---	0.0015	94		

Coefficients

D ₈₅ = 0.1955 mm	D ₃₀ = 0.0228 mm
D ₆₀ = 0.0644 mm	D ₁₅ = 0.0086 mm
D ₅₀ = 0.0481 mm	D ₁₀ = 0.0048 mm
C _u = 13.417	C _c = 1.682

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

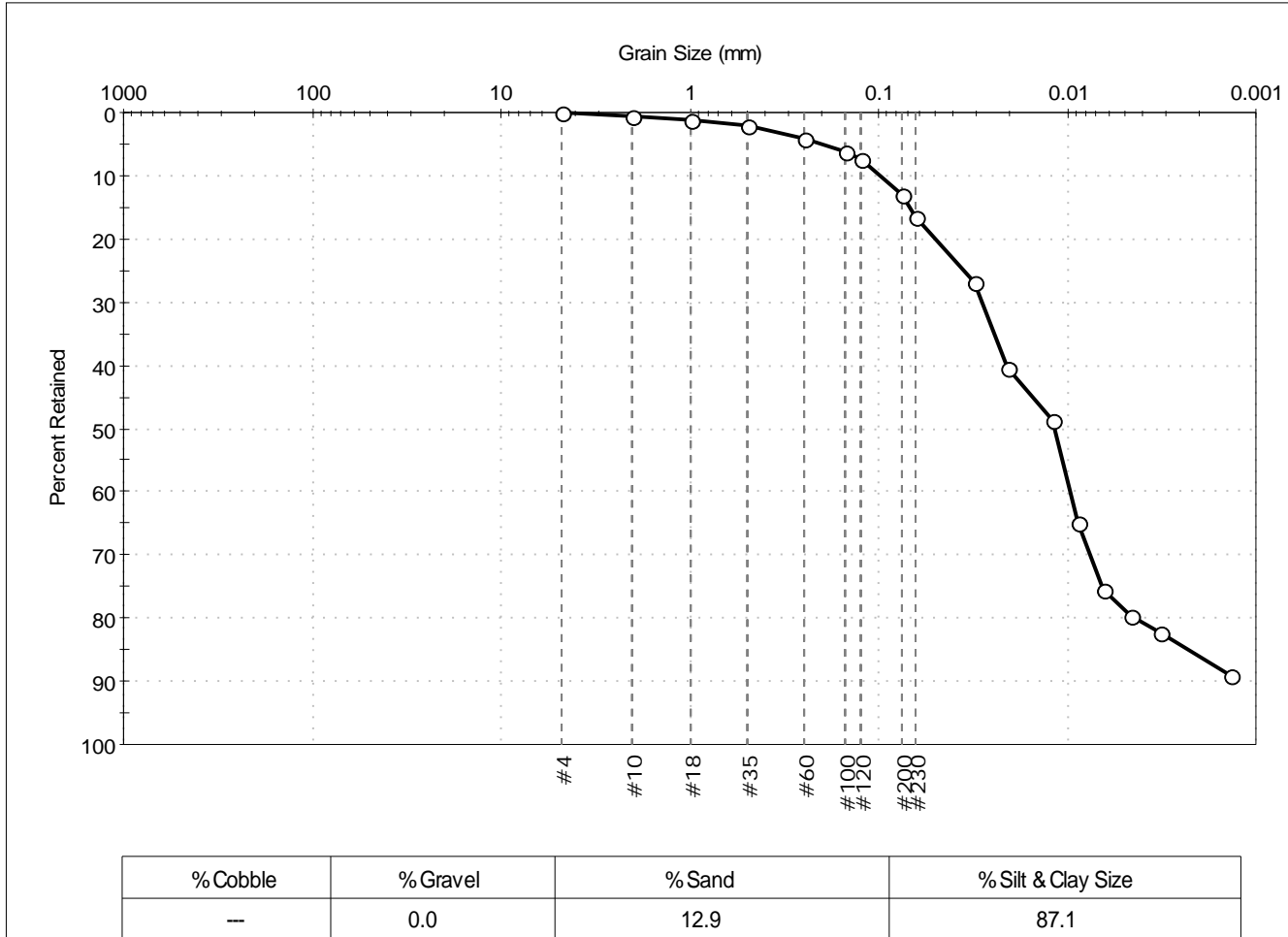
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	310-14LTM	Sample Type:	bag
Sample ID:	NBH14-0141	Test Date:	11/12/14
Depth:	---	Test Id:	310132
Test Comment:	---		
Sample Description:	Moist, very dark olive gray silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	1		
#35	0.50	2		
#60	0.25	4		
#100	0.15	6		
#120	0.12	7		
#200	0.075	13		
#230	0.063	17		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0311	27		
---	0.0205	40		
---	0.0121	49		
---	0.0089	65		
---	0.0064	76		
---	0.0046	80		
---	0.0032	82		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.0679 mm	D ₃₀ = 0.0076 mm
D ₆₀ = 0.0208 mm	D ₁₅ = 0.0023 mm
D ₅₀ = 0.0118 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

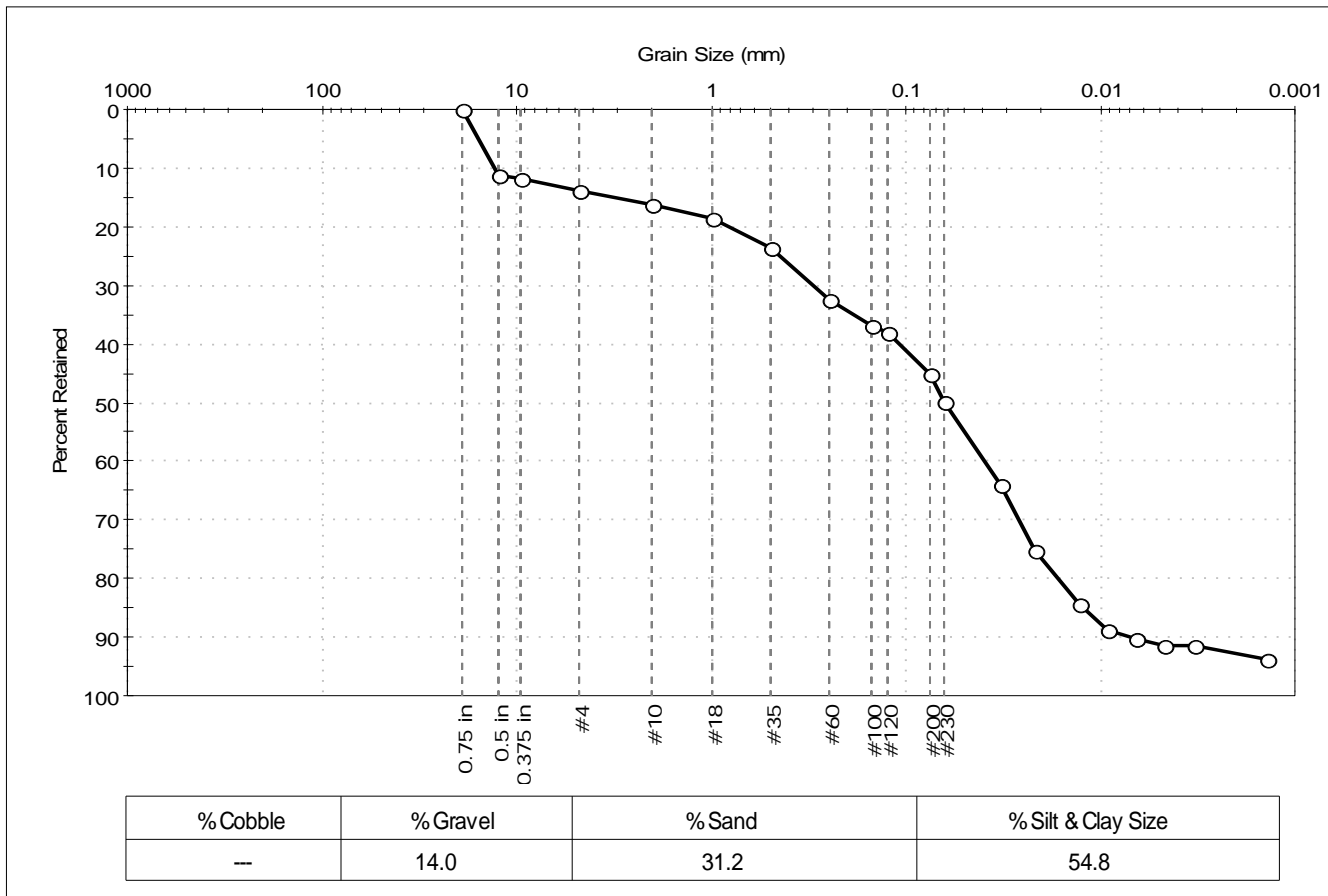
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 310-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0142	Test Date: 11/18/14	Checked By: jdt	
Depth: ---	Test Id: 310133		
Test Comment: ---			
Sample Description: Wet, greenish gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	11		
0.375 in	9.50	12		
#4	4.75	14		
#10	2.00	16		
#18	1.00	19		
#35	0.50	24		
#60	0.25	32		
#100	0.15	37		
#120	0.12	38		
#200	0.075	45		
#230	0.063	50		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	64		
---	0.0217	75		
---	0.0129	84		
---	0.0093	89		
---	0.0066	90		
---	0.0047	92		
---	0.0033	92		
---	0.0014	94		

Coefficients

D ₈₅ = 3.1807 mm	D ₃₀ = 0.0263 mm
D ₆₀ = 0.1095 mm	D ₁₅ = 0.0124 mm
D ₅₀ = 0.0628 mm	D ₁₀ = 0.0072 mm
C _u = 15.208	C _c = 0.877

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

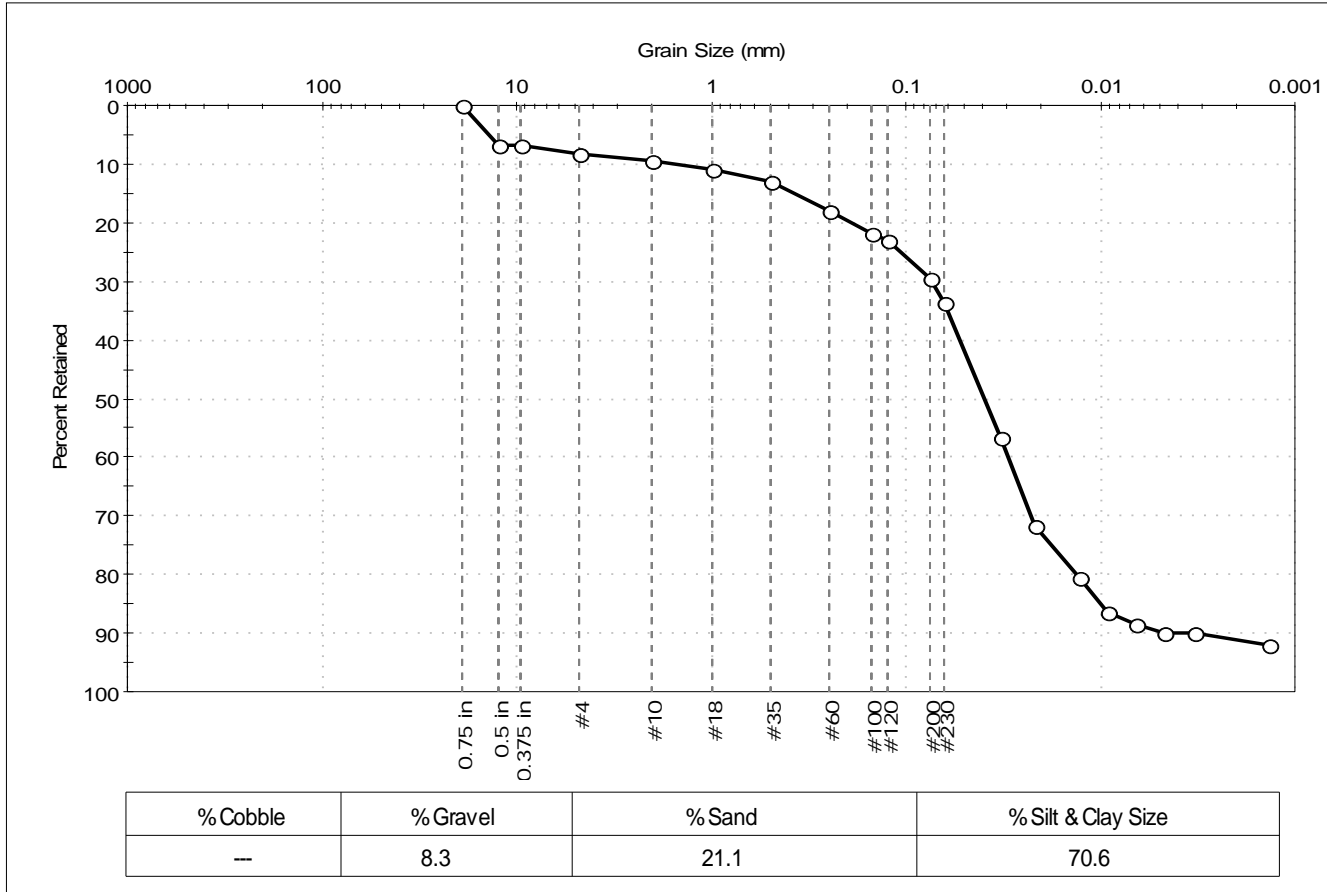
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 310-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0143	Test Date: 11/18/14	Test Id: 310134	
Depth: ---			
Test Comment: ---			
Sample Description: Wet olive brown silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	7		
0.375 in	9.50	7		
#4	4.75	8		
#10	2.00	9		
#18	1.00	11		
#35	0.50	13		
#60	0.25	18		
#100	0.15	22		
#120	0.12	23		
#200	0.075	29		
#230	0.063	34		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	57		
---	0.0217	72		
---	0.0129	81		
---	0.0093	87		
---	0.0066	89		
---	0.0047	90		
---	0.0033	90		
---	0.0014	92		

<u>Coefficients</u>	
D ₈₅ = 0.3804 mm	D ₃₀ = 0.0228 mm
D ₆₀ = 0.0527 mm	D ₁₅ = 0.0101 mm
D ₅₀ = 0.0396 mm	D ₁₀ = 0.0032 mm
C _u = 16.469	C _c = 3.083

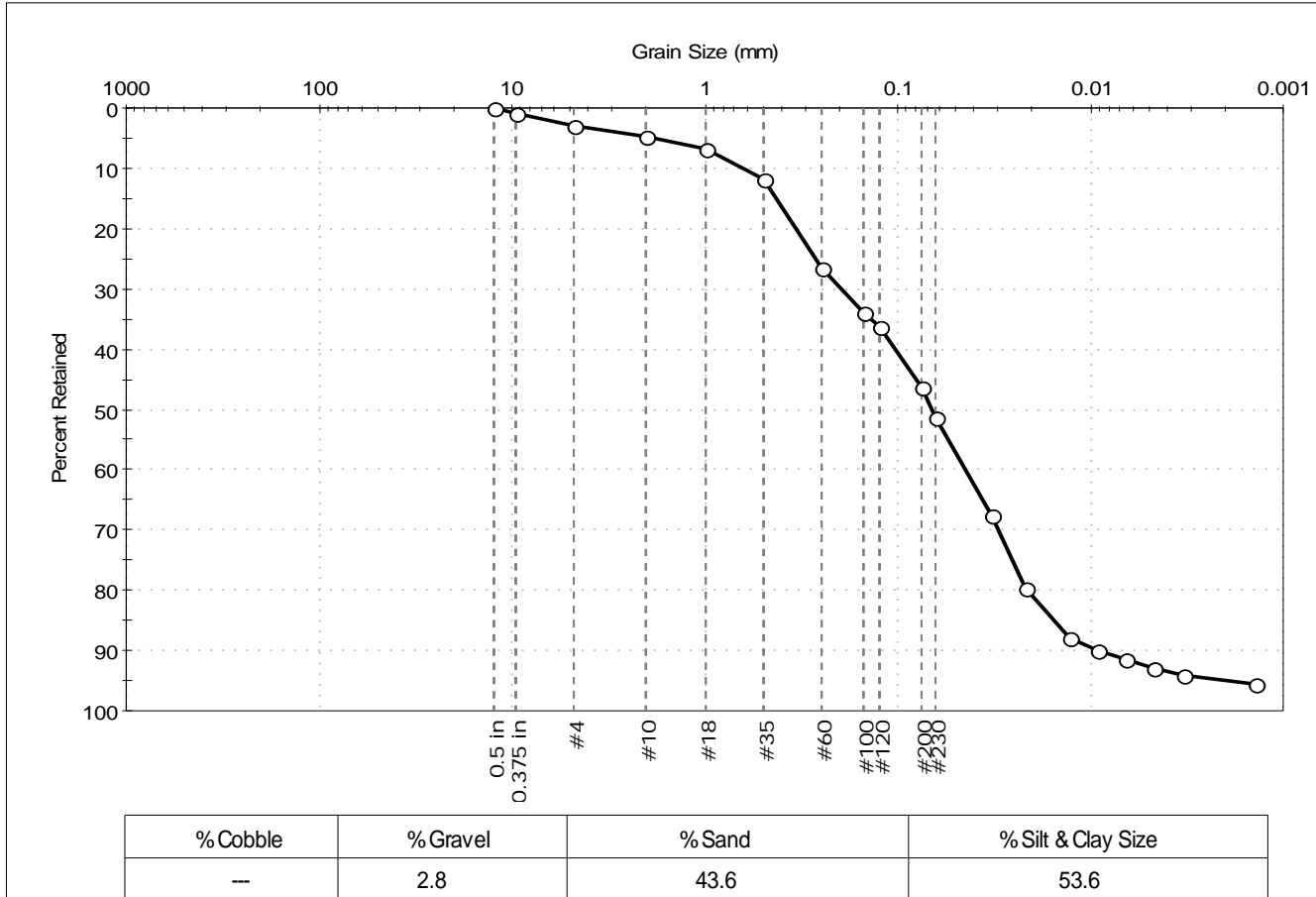
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	310-14LTM	Sample Type:	bag
Sample ID:	NBH14-0144	Test Date:	11/18/14
Depth:	---	Test Id:	310135
Test Comment:	---		
Sample Description:	Moist, olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	3		
#10	2.00	5		
#18	1.00	7		
#35	0.50	12		
#60	0.25	26		
#100	0.15	34		
#120	0.12	36		
#200	0.075	46		
#230	0.063	51		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	68		
---	0.0217	80		
---	0.0130	88		
---	0.0092	90		
---	0.0066	92		
---	0.0047	93		
---	0.0033	94		
---	0.0014	96		

Coefficients

D ₈₅ = 0.4307 mm	D ₃₀ = 0.0301 mm
D ₆₀ = 0.1033 mm	D ₁₅ = 0.0155 mm
D ₅₀ = 0.0659 mm	D ₁₀ = 0.0092 mm
C _u = 11.228	C _c = 0.953

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

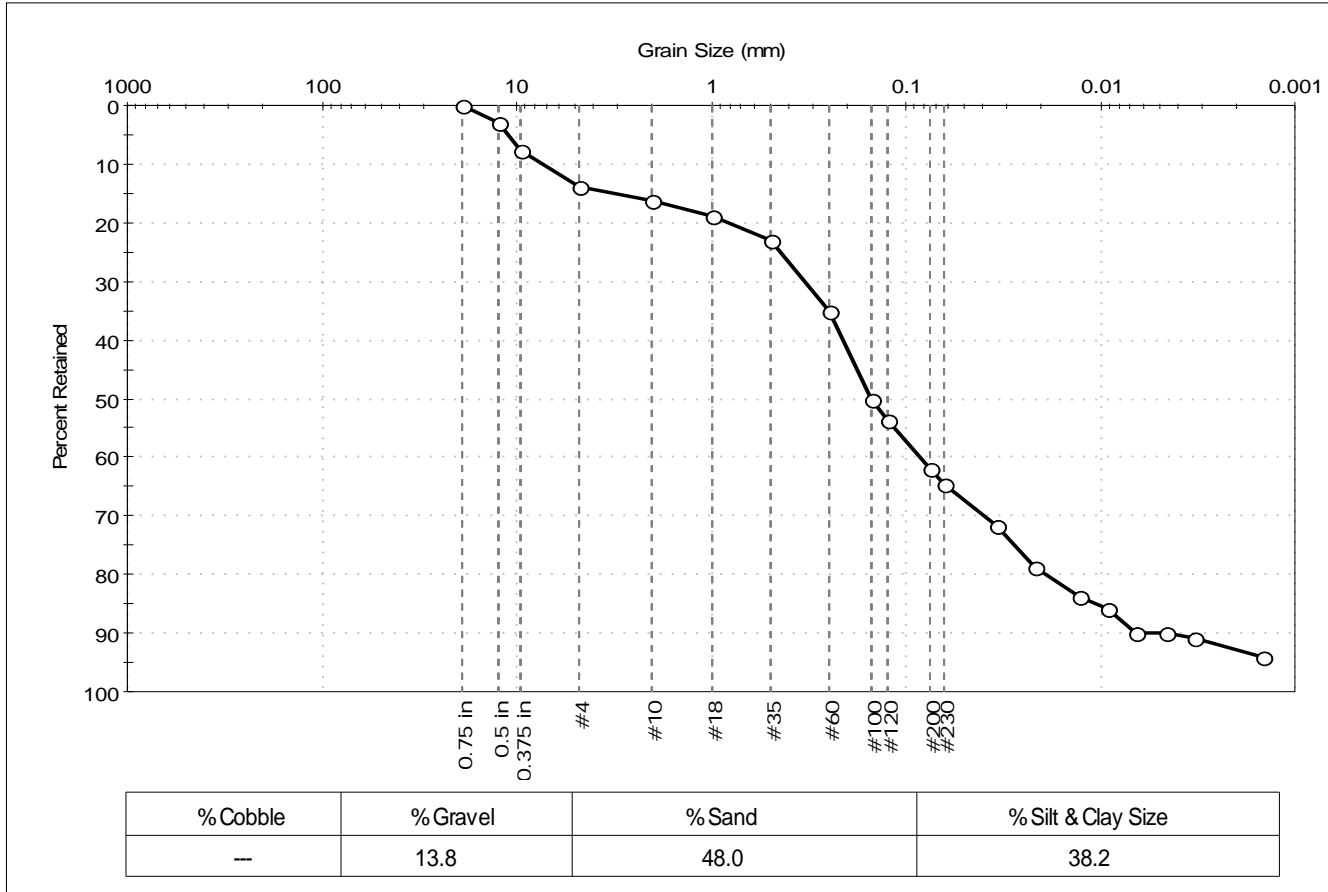
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 304-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0145	Test Date: 11/12/14	Depth: ---	Test Id: 310136
Test Comment: ---	Sample Description: Moist, very dark olive gray silty sand	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	3		
0.375 in	9.50	8		
#4	4.75	14		
#10	2.00	16		
#18	1.00	19		
#35	0.50	23		
#60	0.25	35		
#100	0.15	50		
#120	0.12	54		
#200	0.075	62		
#230	0.063	65		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0339	72		
---	0.0218	79		
---	0.0128	84		
---	0.0091	86		
---	0.0065	90		
---	0.0046	90		
---	0.0033	91		
---	0.0015	94		

Coefficients

D ₈₅ = 3.1358 mm	D ₃₀ = 0.0396 mm
D ₆₀ = 0.2122 mm	D ₁₅ = 0.0106 mm
D ₅₀ = 0.1508 mm	D ₁₀ = 0.0045 mm
C _u = 47.156	C _c = 1.642

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

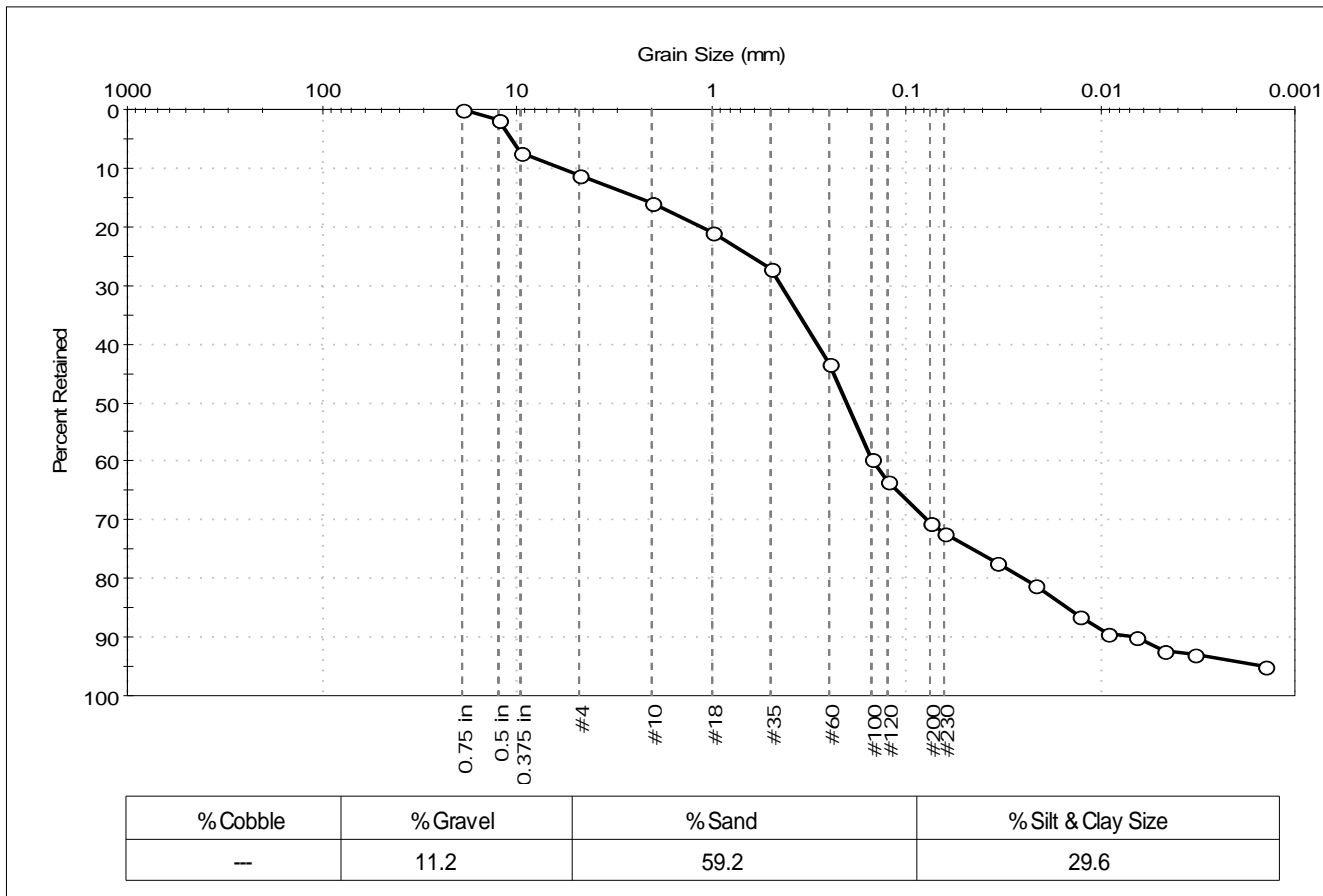
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 304-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0146	Test Date: 11/18/14	Test Id: 310137	
Depth: ---	Test Comment: ---	Sample Description: Moist, olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	2		
0.375 in	9.50	7		
#4	4.75	11		
#10	2.00	16		
#18	1.00	21		
#35	0.50	27		
#60	0.25	43		
#100	0.15	60		
#120	0.12	63		
#200	0.075	70		
#230	0.063	72		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	77		
---	0.0218	81		
---	0.0129	86		
---	0.0092	89		
---	0.0065	90		
---	0.0047	92		
---	0.0033	93		
---	0.0014	95		

<u>Coefficients</u>	
D ₈₅ = 2.3803 mm	D ₃₀ = 0.0771 mm
D ₆₀ = 0.2890 mm	D ₁₅ = 0.0147 mm
D ₅₀ = 0.2031 mm	D ₁₀ = 0.0067 mm
C _u = 43.134	C _c = 3.070

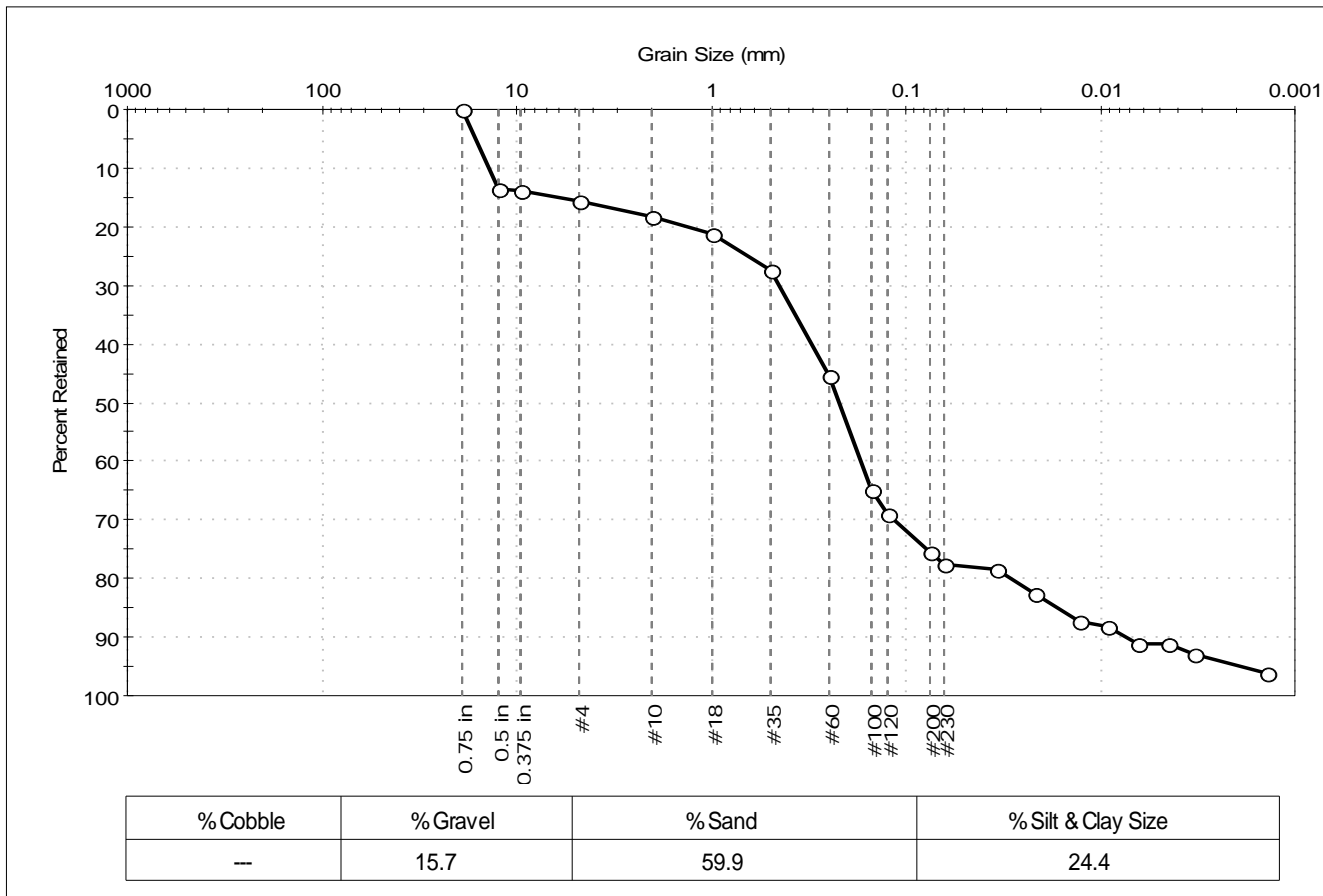
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 304-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0147	Test Date: 11/14/14	Checked By: jdt	
Depth: ---	Test Id: 310138		
Test Comment: ---			
Sample Description: Moist, grayish brown silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	13		
0.375 in	9.50	14		
#4	4.75	16		
#10	2.00	18		
#18	1.00	21		
#35	0.50	28		
#60	0.25	46		
#100	0.15	65		
#120	0.12	69		
#200	0.075	76		
#230	0.063	77		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	79		
---	0.0218	83		
---	0.0128	87		
---	0.0091	88		
---	0.0065	91		
---	0.0045	91		
---	0.0033	93		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 6.2094 mm	D ₃₀ = 0.1153 mm
D ₆₀ = 0.3092 mm	D ₁₅ = 0.0166 mm
D ₅₀ = 0.2223 mm	D ₁₀ = 0.0074 mm
C _u = 41.784	C _c = 5.810

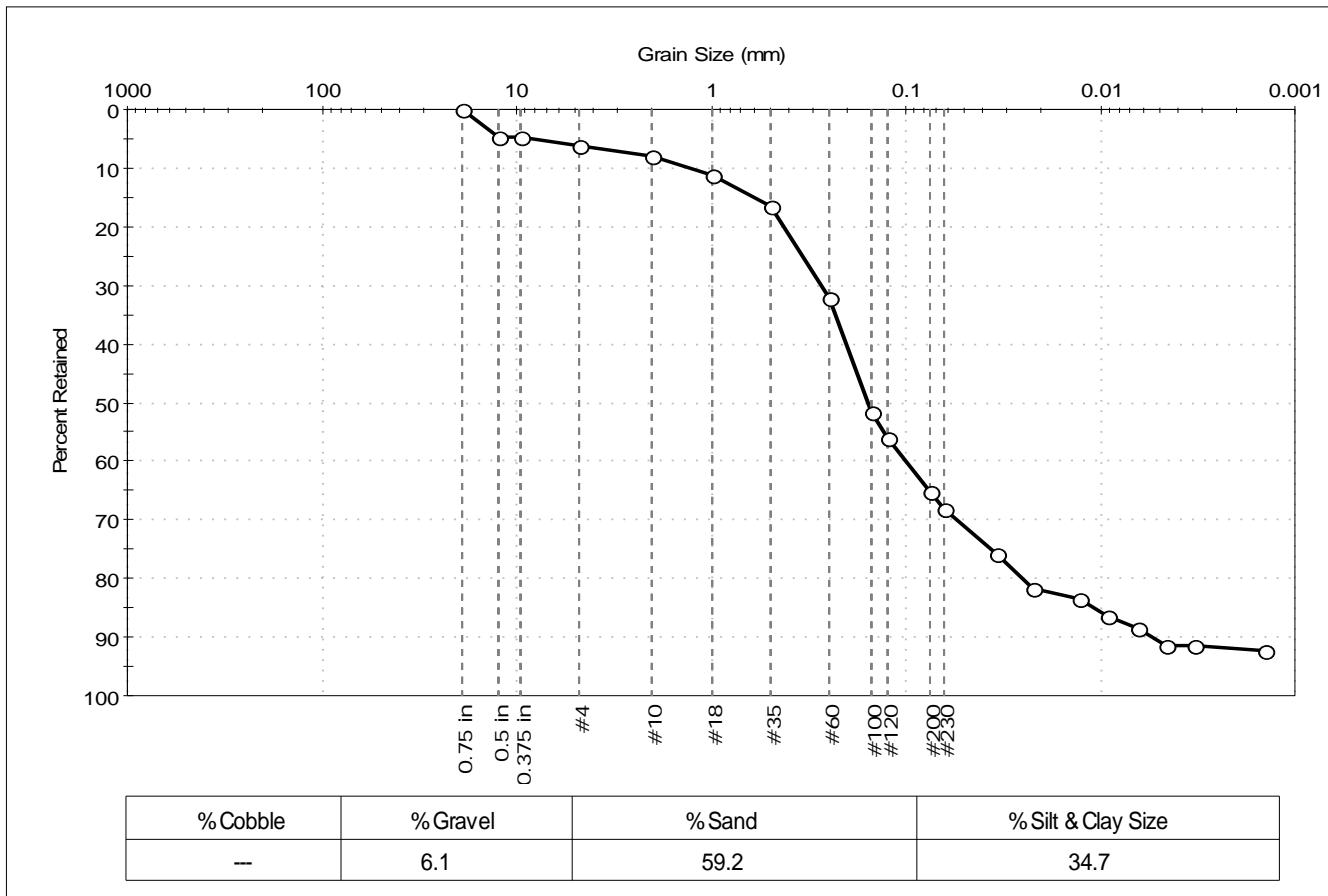
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 304-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0148	Test Date: 11/12/14	Checked By: jdt	
Depth: ---	Test Id: 310139		
Test Comment: ---			
Sample Description: Moist, very dark olive gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	5		
0.375 in	9.50	5		
#4	4.75	6		
#10	2.00	8		
#18	1.00	11		
#35	0.50	17		
#60	0.25	32		
#100	0.15	52		
#120	0.12	56		
#200	0.075	65		
#230	0.063	68		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0343	76		
---	0.0221	82		
---	0.0128	84		
---	0.0092	86		
---	0.0065	88		
---	0.0046	91		
---	0.0033	91		
---	0.0014	92		

Coefficients

D ₈₅ = 0.6133 mm	D ₃₀ = 0.0548 mm
D ₆₀ = 0.2037 mm	D ₁₅ = 0.0109 mm
D ₅₀ = 0.1565 mm	D ₁₀ = 0.0054 mm
C _u = 37.722	C _c = 2.730

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

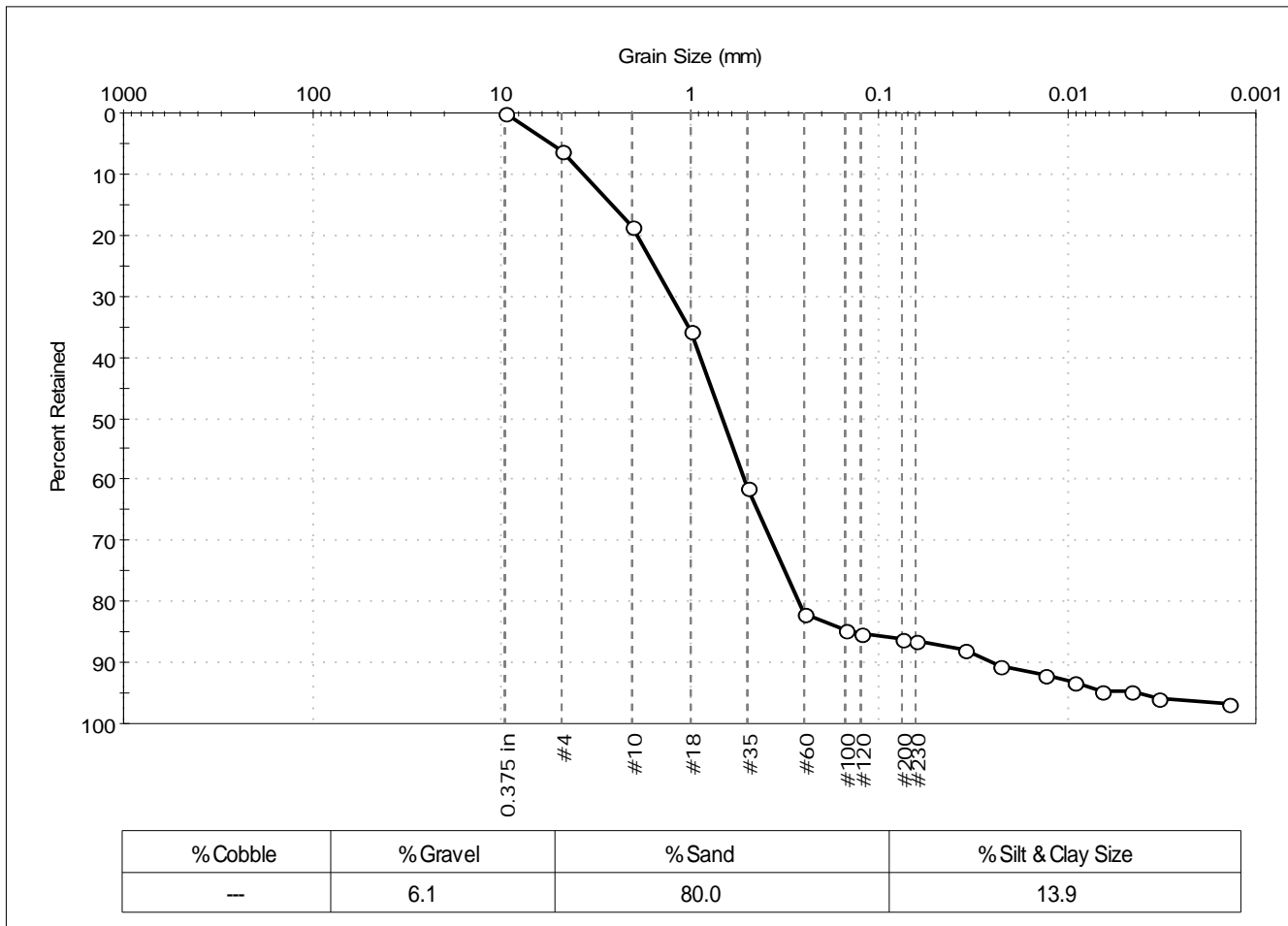
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 250-14LTM	Sample Type: bag
Sample ID: NBH14-0149	Test Date: 11/04/14
Depth: ---	Test Id: 310140
Test Comment: ---	Tested By: jbr
Sample Description: Moist, black silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	6		
#10	2.00	19		
#18	1.00	36		
#35	0.50	61		
#60	0.25	82		
#100	0.15	85		
#120	0.12	85		
#200	0.075	86		
#230	0.063	86		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0352	88		
---	0.0225	91		
---	0.0131	92		
---	0.0093	93		
---	0.0066	95		
---	0.0047	95		
---	0.0033	96		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 2.5672 mm	D ₃₀ = 0.3736 mm
D ₆₀ = 0.8913 mm	D ₁₅ = 0.1314 mm
D ₅₀ = 0.6794 mm	D ₁₀ = 0.0254 mm
C _u = 35.091	C _c = 6.165

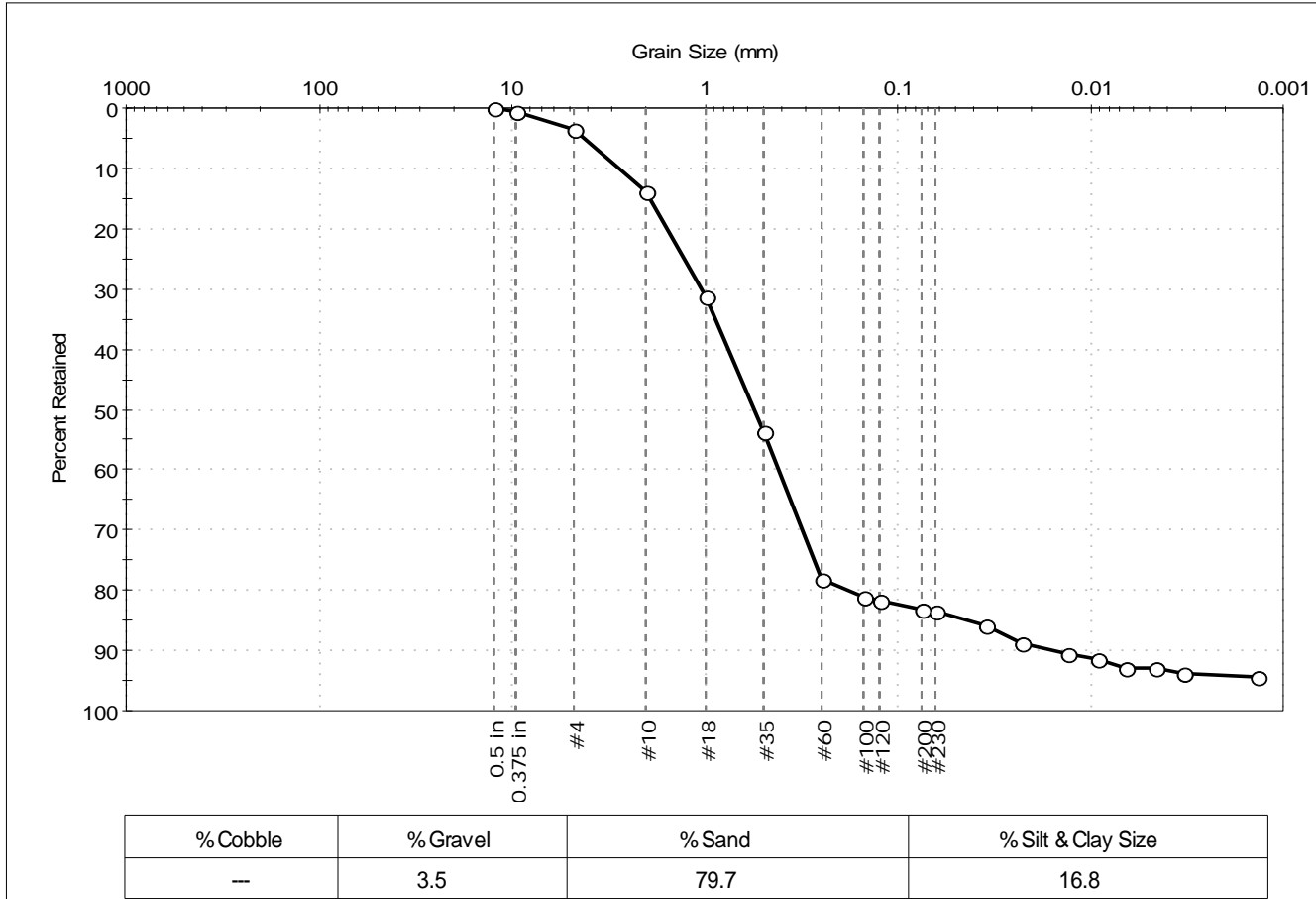
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 250-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0149DUP	Test Date: 10/29/14	Test Id: 310141	
Depth: ---	Test Comment: ---	Sample Description: Wet, bluish gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	4		
#10	2.00	14		
#18	1.00	31		
#35	0.50	54		
#60	0.25	78		
#100	0.15	81		
#120	0.12	82		
#200	0.075	83		
#230	0.063	83		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0352	86		
---	0.0225	89		
---	0.0131	91		
---	0.0093	91		
---	0.0066	93		
---	0.0046	93		
---	0.0033	94		
---	0.0014	94		

Coefficients

D ₈₅ = 1.9063 mm	D ₃₀ = 0.3152 mm
D ₆₀ = 0.7622 mm	D ₁₅ = 0.0429 mm
D ₅₀ = 0.5607 mm	D ₁₀ = 0.0156 mm
C _u = 48.859	C _c = 8.356

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

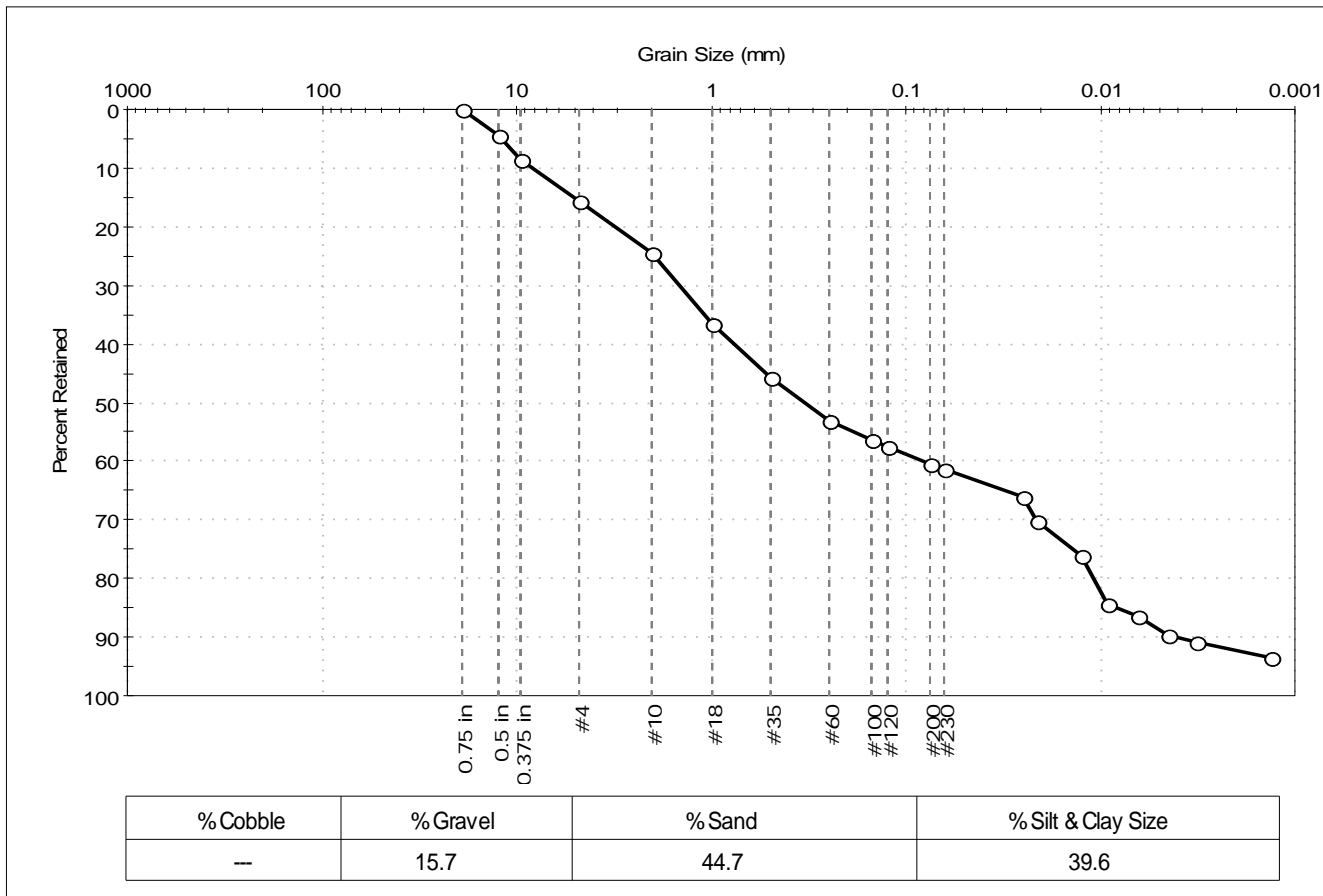
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 250-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0150	Test Date: 11/05/14	Checked By: jdt	
Depth: ---	Test Id: 310142		
Test Comment: ---			
Sample Description: Moist, very dark gray silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	4		
0.375 in	9.50	9		
#4	4.75	16		
#10	2.00	25		
#18	1.00	37		
#35	0.50	46		
#60	0.25	53		
#100	0.15	56		
#120	0.12	57		
#200	0.075	60		
#230	0.063	61		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0251	66		
---	0.0212	70		
---	0.0125	76		
---	0.0092	84		
---	0.0065	86		
---	0.0045	90		
---	0.0032	91		
---	0.0013	94		

<u>Coefficients</u>	
D ₈₅ = 5.0839 mm	D ₃₀ = 0.0213 mm
D ₆₀ = 0.7781 mm	D ₁₅ = 0.0082 mm
D ₅₀ = 0.3366 mm	D ₁₀ = 0.0042 mm
C _u = 185.262	C _c = 0.139

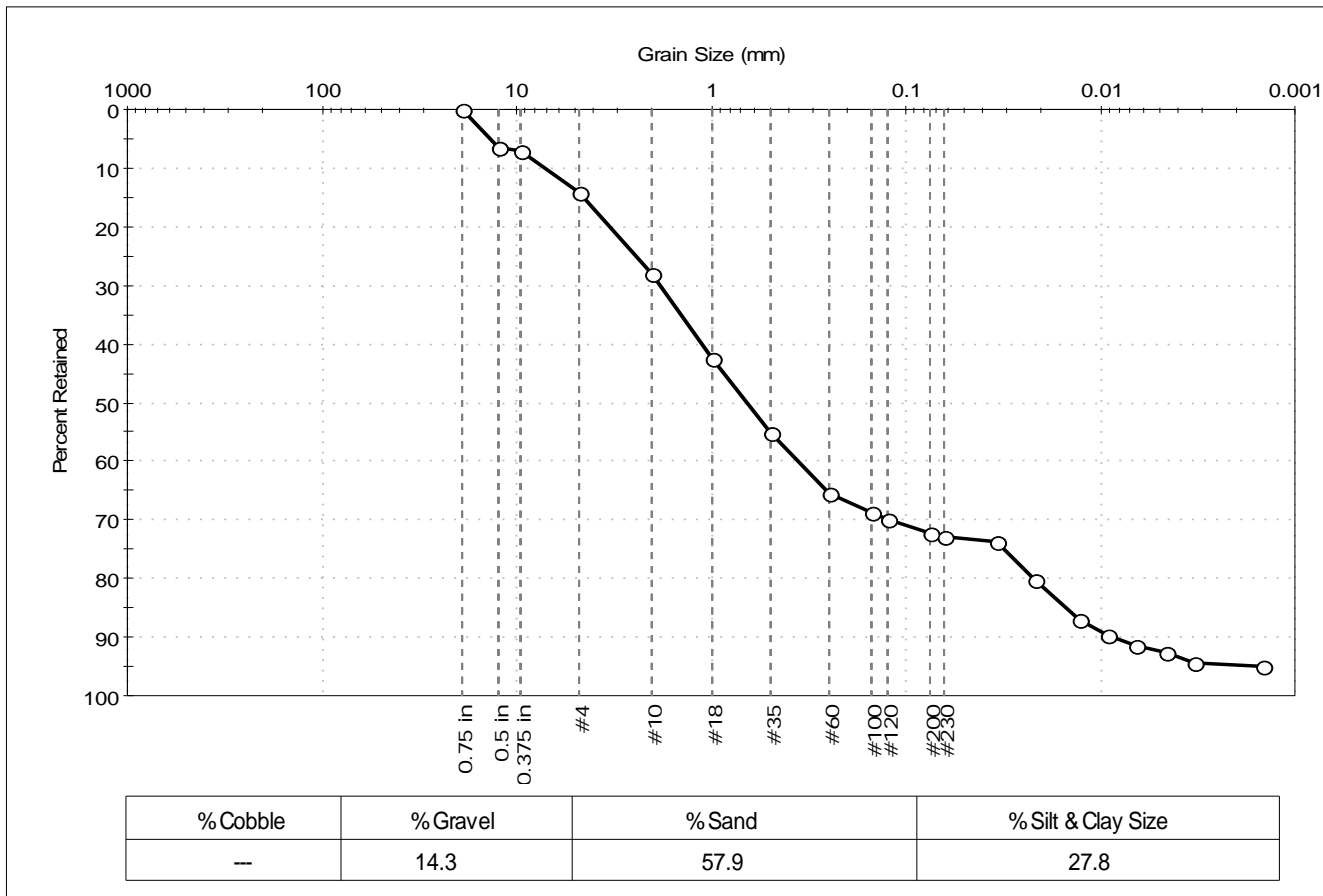
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 250-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0151	Test Date: 11/17/14	Test Id: 310143	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	6		
0.375 in	9.50	7		
#4	4.75	14		
#10	2.00	28		
#18	1.00	42		
#35	0.50	55		
#60	0.25	65		
#100	0.15	69		
#120	0.12	70		
#200	0.075	72		
#230	0.063	73		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	74		
---	0.0220	80		
---	0.0129	87		
---	0.0092	90		
---	0.0066	92		
---	0.0046	93		
---	0.0033	94		
---	0.0015	95		

<u>Coefficients</u>	
D ₈₅ = 4.5401 mm	D ₃₀ = 0.1193 mm
D ₆₀ = 1.1203 mm	D ₁₅ = 0.0151 mm
D ₅₀ = 0.6604 mm	D ₁₀ = 0.0087 mm
C _u = 128.770	C _c = 1.460

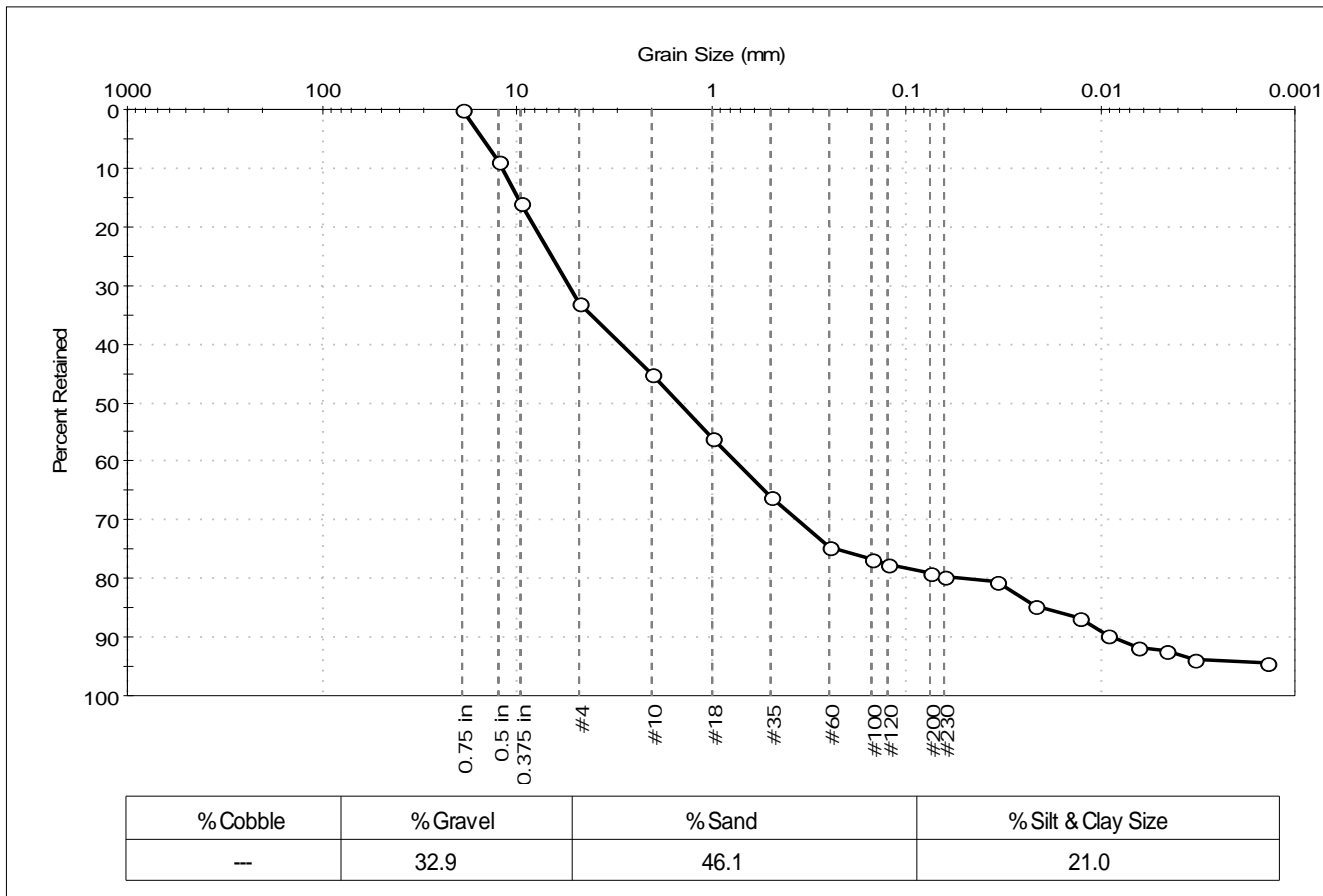
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 250-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0152	Test Date: 11/17/14	Checked By: jdt	
Depth: ---	Test Id: 310144		
Test Comment: ---			
Sample Description: Wet, dark olive gray silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	9		
0.375 in	9.50	16		
#4	4.75	33		
#10	2.00	45		
#18	1.00	56		
#35	0.50	66		
#60	0.25	75		
#100	0.15	77		
#120	0.12	77		
#200	0.075	79		
#230	0.063	80		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	81		
---	0.0219	85		
---	0.0127	87		
---	0.0091	90		
---	0.0065	92		
---	0.0046	92		
---	0.0033	94		
---	0.0014	94		

<u>Coefficients</u>	
D ₈₅ = 9.8769 mm	D ₃₀ = 0.3605 mm
D ₆₀ = 2.8784 mm	D ₁₅ = 0.0204 mm
D ₅₀ = 1.4699 mm	D ₁₀ = 0.0085 mm
C _u = 338.635	C _c = 5.312

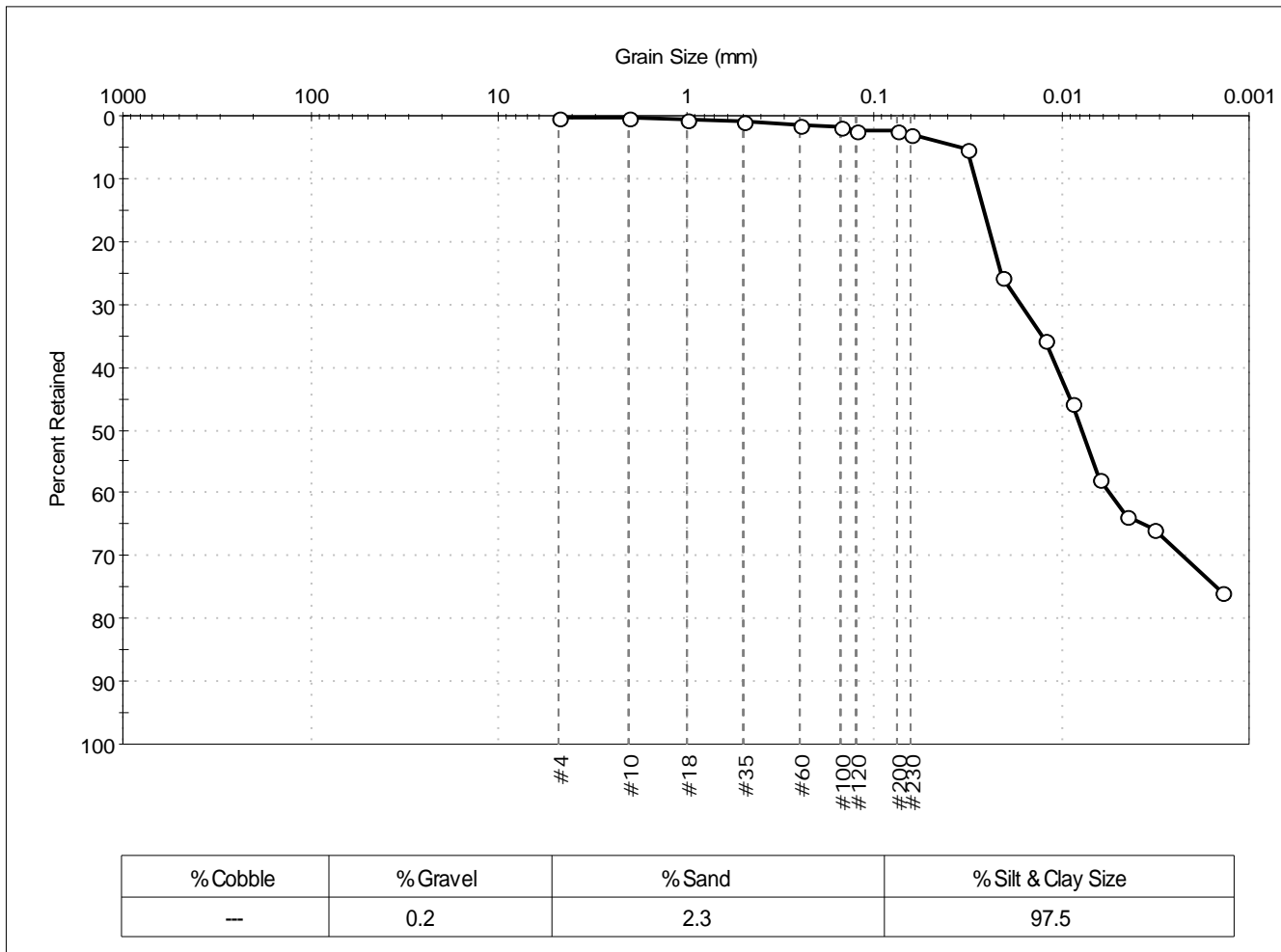
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 105-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0153	Test Date: 11/17/14	Test Id: 310145	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	2		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0318	5		
---	0.0208	26		
---	0.0122	36		
---	0.0088	46		
---	0.0063	58		
---	0.0045	64		
---	0.0032	66		
---	0.0014	76		

<u>Coefficients</u>	
D ₈₅ = 0.0260 mm	D ₃₀ = 0.0023 mm
D ₆₀ = 0.0106 mm	D ₁₅ = N/A
D ₅₀ = 0.0078 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

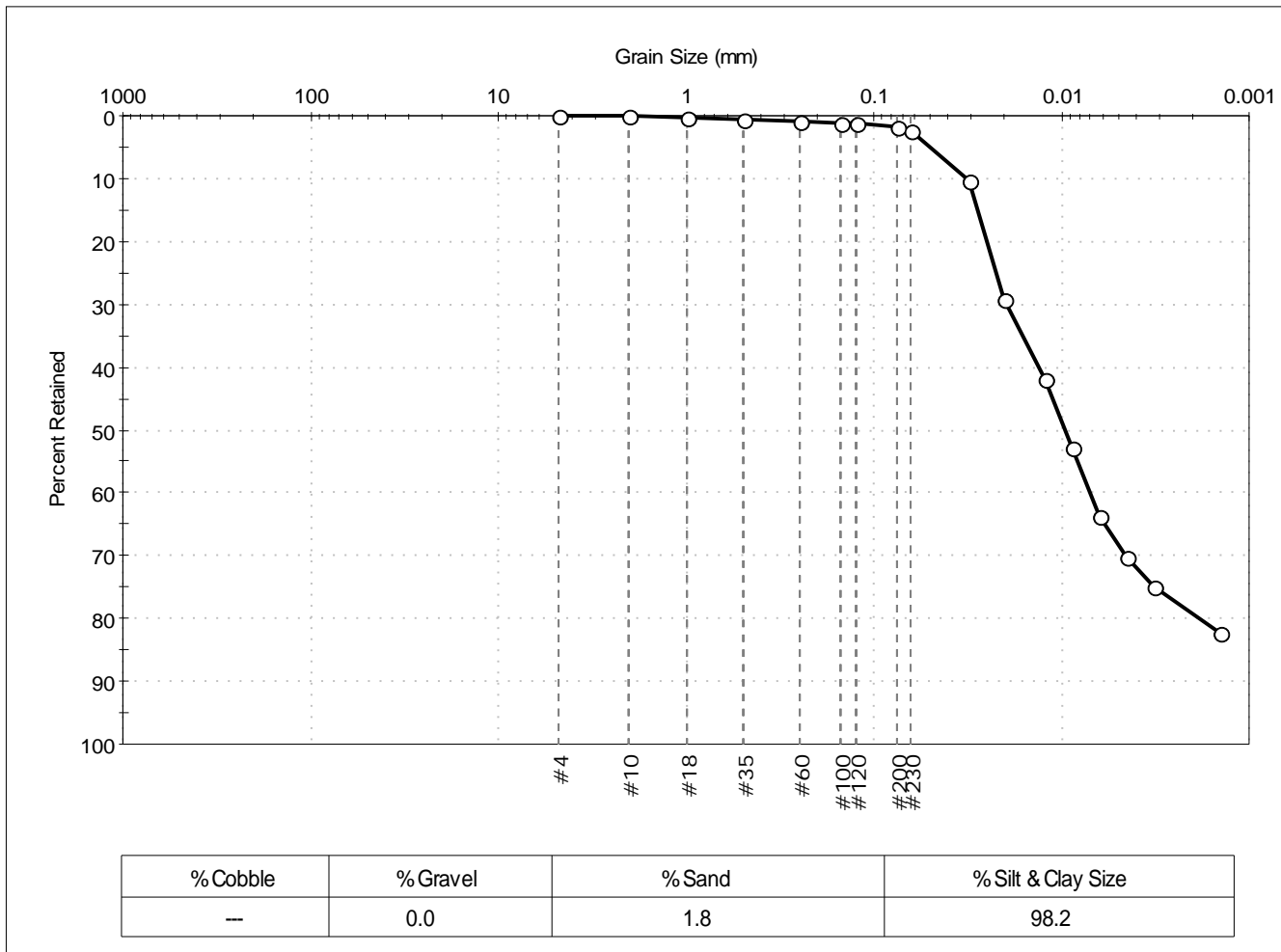
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	105-14LTM	Sample Type:	bag
Sample ID:	NBH14-0154	Test Date:	11/14/14
Depth:	---	Test Id:	310146
Test Comment:	---		
Sample Description:	Moist, dark olive gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	2		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0310	10		
---	0.0204	29		
---	0.0121	42		
---	0.0088	53		
---	0.0063	64		
---	0.0045	70		
---	0.0032	75		
---	0.0014	82		

<u>Coefficients</u>	
D ₈₅ = 0.0279 mm	D ₃₀ = 0.0046 mm
D ₆₀ = 0.0131 mm	D ₁₅ = N/A
D ₅₀ = 0.0095 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

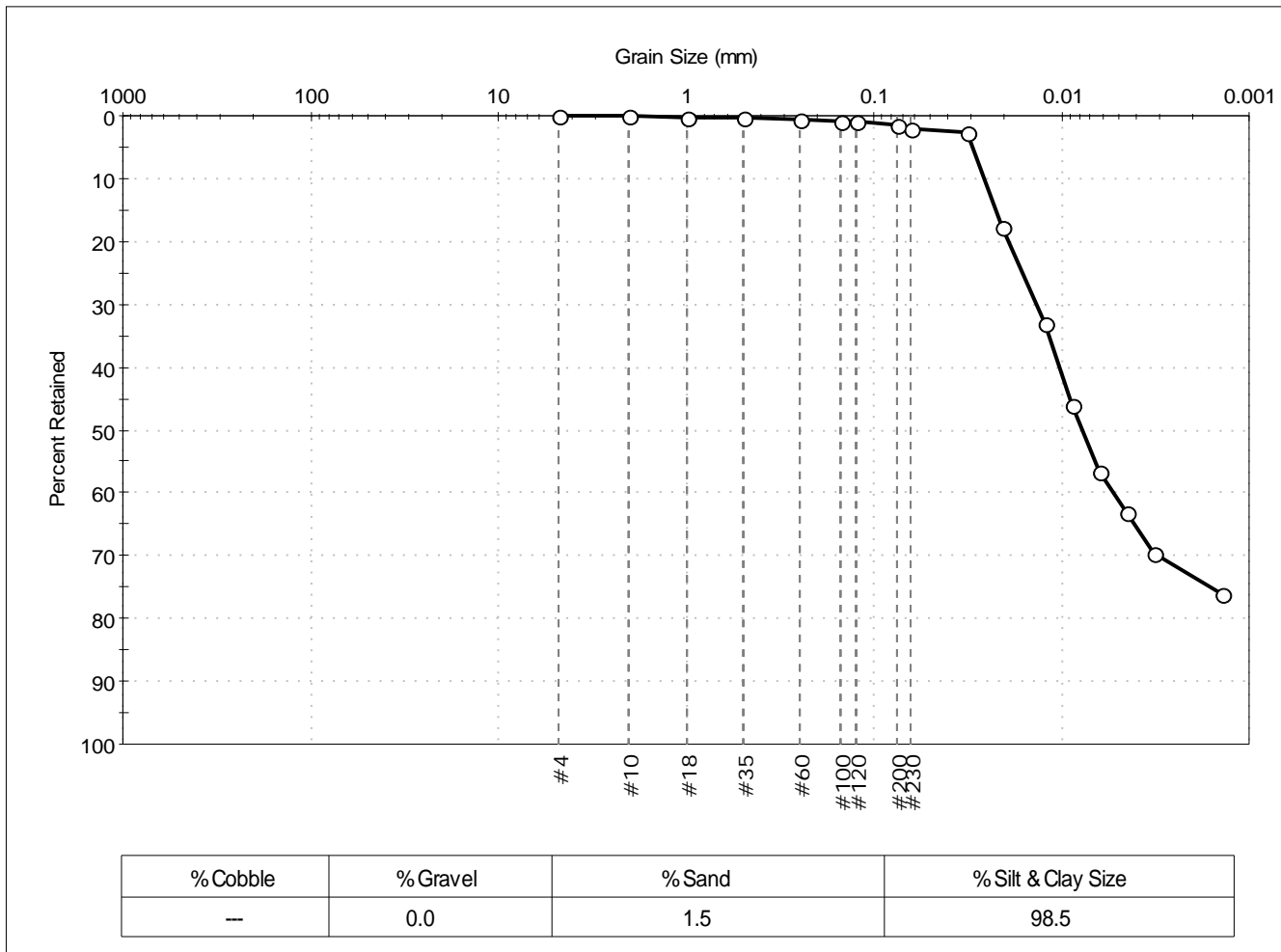
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 105-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0155
 Test Date: 11/17/14
 Checked By: jdt
 Depth: ---
 Test Id: 310147
 Test Comment: ---
 Sample Description: Wet, dark olive gray silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	1		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0319	3		
---	0.0208	18		
---	0.0122	33		
---	0.0088	46		
---	0.0063	57		
---	0.0045	63		
---	0.0032	70		
---	0.0014	76		

<u>Coefficients</u>	
D ₈₅ = 0.0224 mm	D ₃₀ = 0.0031 mm
D ₆₀ = 0.0102 mm	D ₁₅ = N/A
D ₅₀ = 0.0078 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

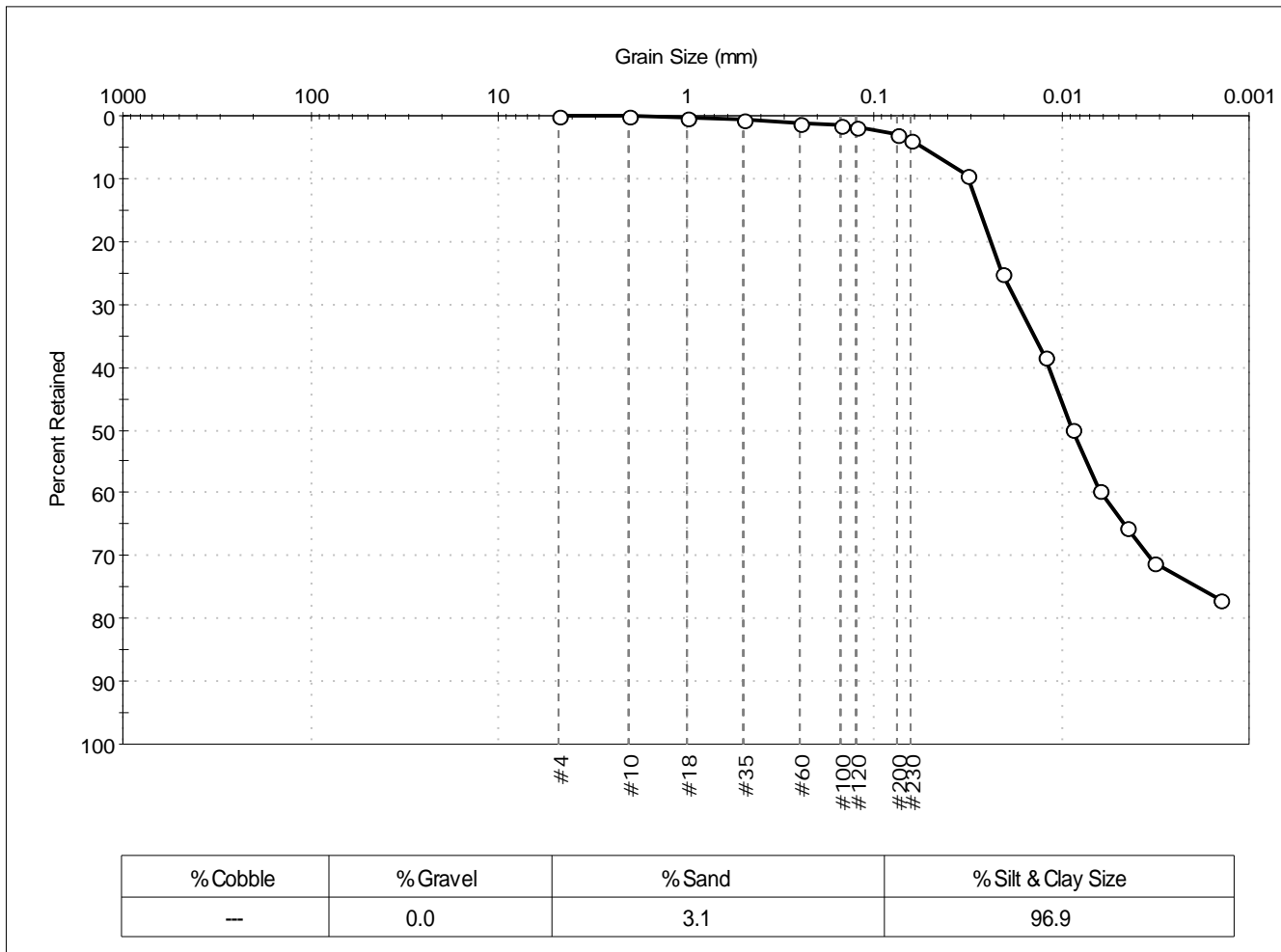
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 105-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0156	Test Date: 11/17/14	Test Id: 310148	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	3		
#230	0.063	4		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0318	10		
---	0.0207	25		
---	0.0122	38		
---	0.0088	50		
---	0.0063	60		
---	0.0045	65		
---	0.0032	71		
---	0.0014	77		

<u>Coefficients</u>	
D ₈₅ = 0.0273 mm	D ₃₀ = 0.0034 mm
D ₆₀ = 0.0117 mm	D ₁₅ = N/A
D ₅₀ = 0.0088 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

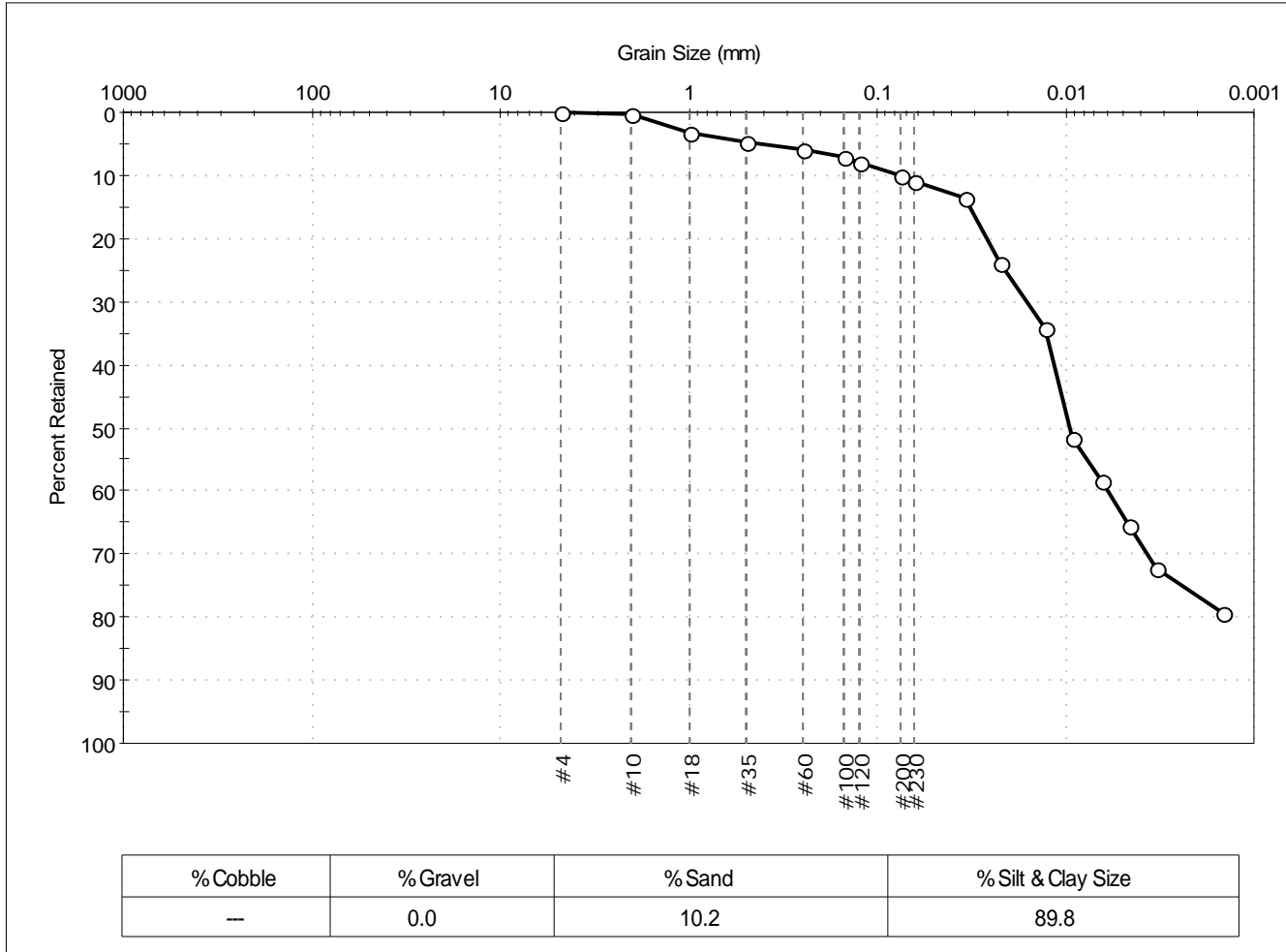
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 109-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0157	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310149		
Test Comment: ---			
Sample Description: Moist, very dark gray silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	3		
#35	0.50	5		
#60	0.25	6		
#100	0.15	7		
#120	0.12	8		
#200	0.075	10		
#230	0.063	11		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	13		
---	0.0220	24		
---	0.0128	34		
---	0.0092	52		
---	0.0065	58		
---	0.0046	65		
---	0.0033	72		
---	0.0015	79		

<u>Coefficients</u>	
D ₈₅ = 0.0319 mm	D ₃₀ = 0.0037 mm
D ₆₀ = 0.0115 mm	D ₁₅ = N/A
D ₅₀ = 0.0095 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

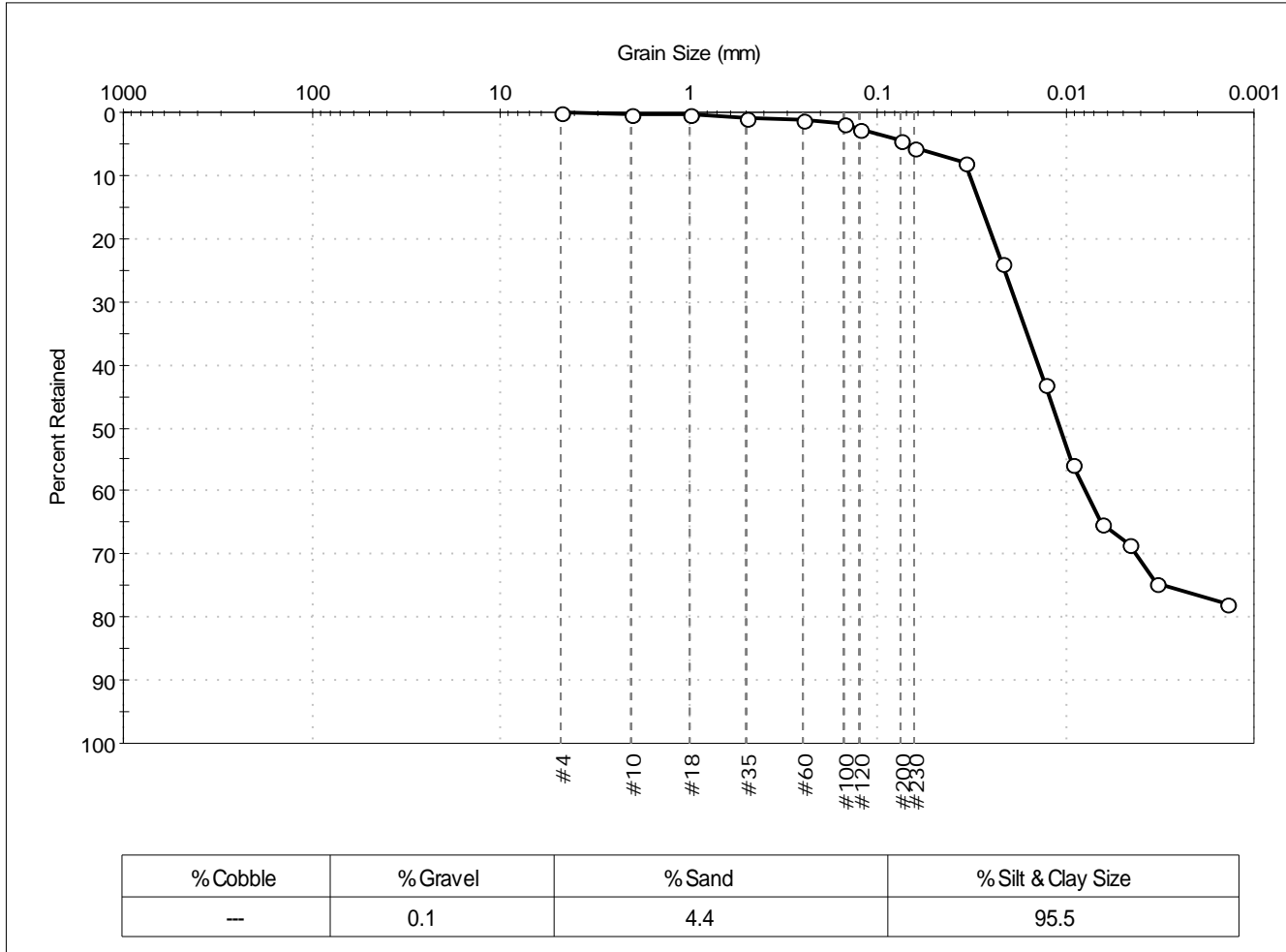
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #200 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 109-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0158	Test Date: 11/17/14	Test Id: 310150	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	3		
#200	0.075	5		
#230	0.063	6		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	8		
---	0.0217	24		
---	0.0128	43		
---	0.0091	56		
---	0.0065	65		
---	0.0046	68		
---	0.0033	75		
---	0.0014	78		

<u>Coefficients</u>	
D ₈₅ = 0.0278 mm	D ₃₀ = 0.0042 mm
D ₆₀ = 0.0138 mm	D ₁₅ = N/A
D ₅₀ = 0.0106 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

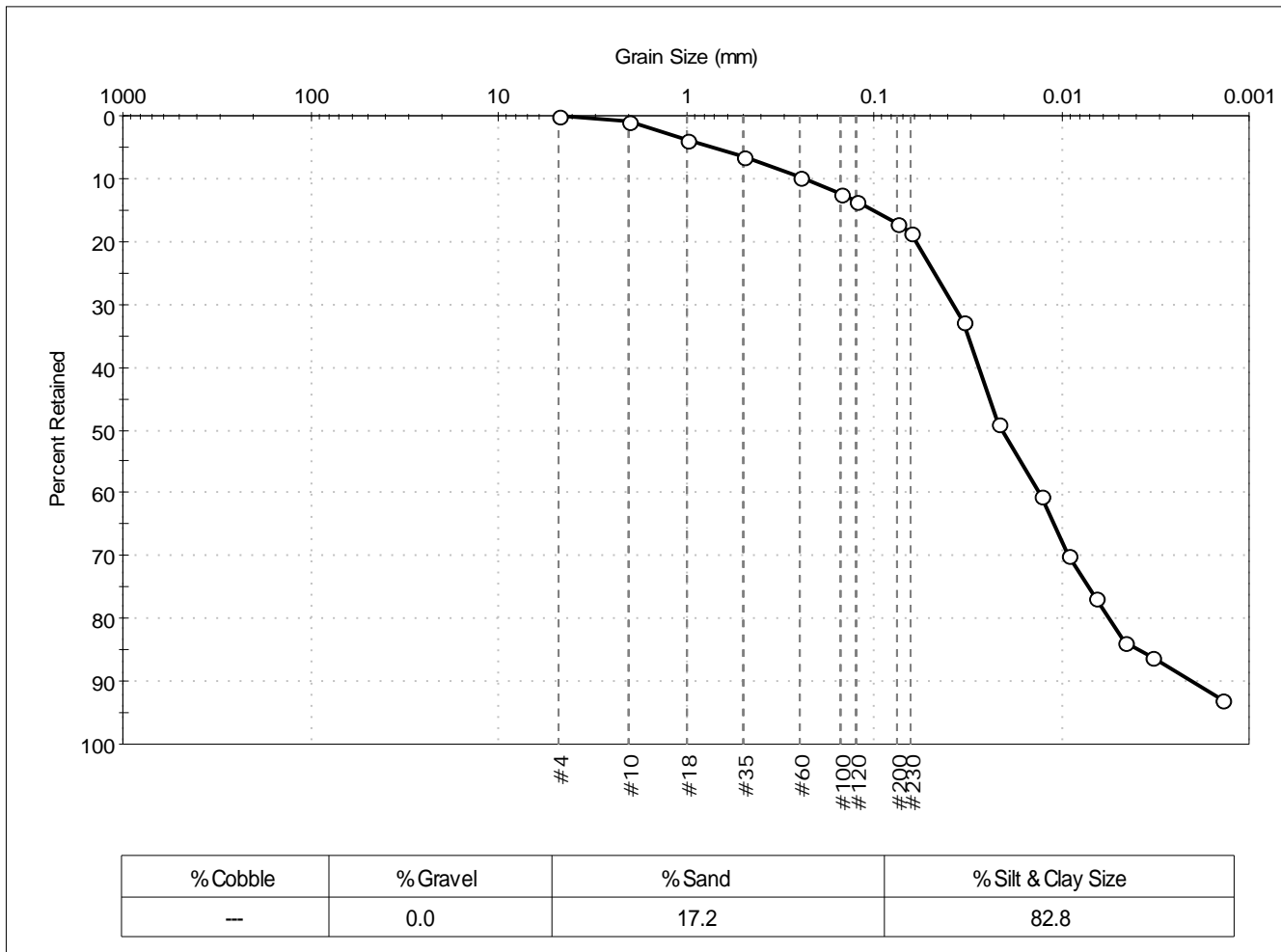
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 109-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0159	Test Date: 11/05/14	Checked By: jdt	
Depth: ---	Test Id: 310151		
Test Comment: ---			
Sample Description: Wet, very dark grayish brown silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	4		
#35	0.50	6		
#60	0.25	10		
#100	0.15	12		
#120	0.12	14		
#200	0.075	17		
#230	0.063	18		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	33		
---	0.0219	49		
---	0.0128	61		
---	0.0091	70		
---	0.0065	77		
---	0.0046	84		
---	0.0033	86		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.1019 mm	D ₃₀ = 0.0091 mm
D ₆₀ = 0.0276 mm	D ₁₅ = 0.0039 mm
D ₅₀ = 0.0209 mm	D ₁₀ = 0.0020 mm
C _u = 13.800	C _c = 1.500

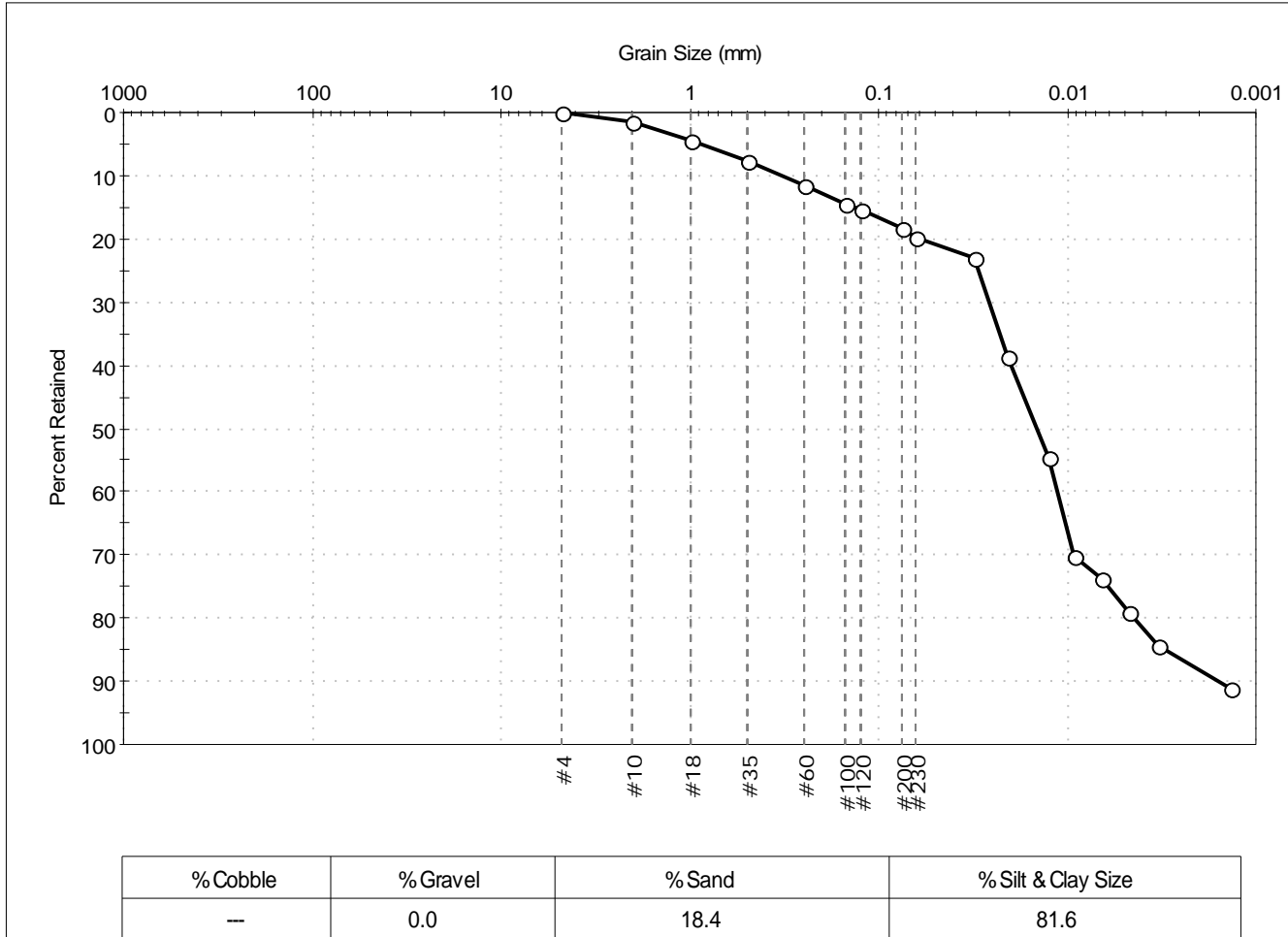
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 109-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0160	Test Date: 11/04/14	Test Id: 310152	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	4		
#35	0.50	8		
#60	0.25	12		
#100	0.15	15		
#120	0.12	15		
#200	0.075	18		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0312	23		
---	0.0208	39		
---	0.0125	54		
---	0.0092	70		
---	0.0065	74		
---	0.0047	79		
---	0.0033	84		
---	0.0014	91		

<u>Coefficients</u>	
D ₈₅ = 0.1346 mm	D ₃₀ = 0.0092 mm
D ₆₀ = 0.0200 mm	D ₁₅ = 0.0030 mm
D ₅₀ = 0.0144 mm	D ₁₀ = 0.0016 mm
C _u = 12.500	C _c = 2.645

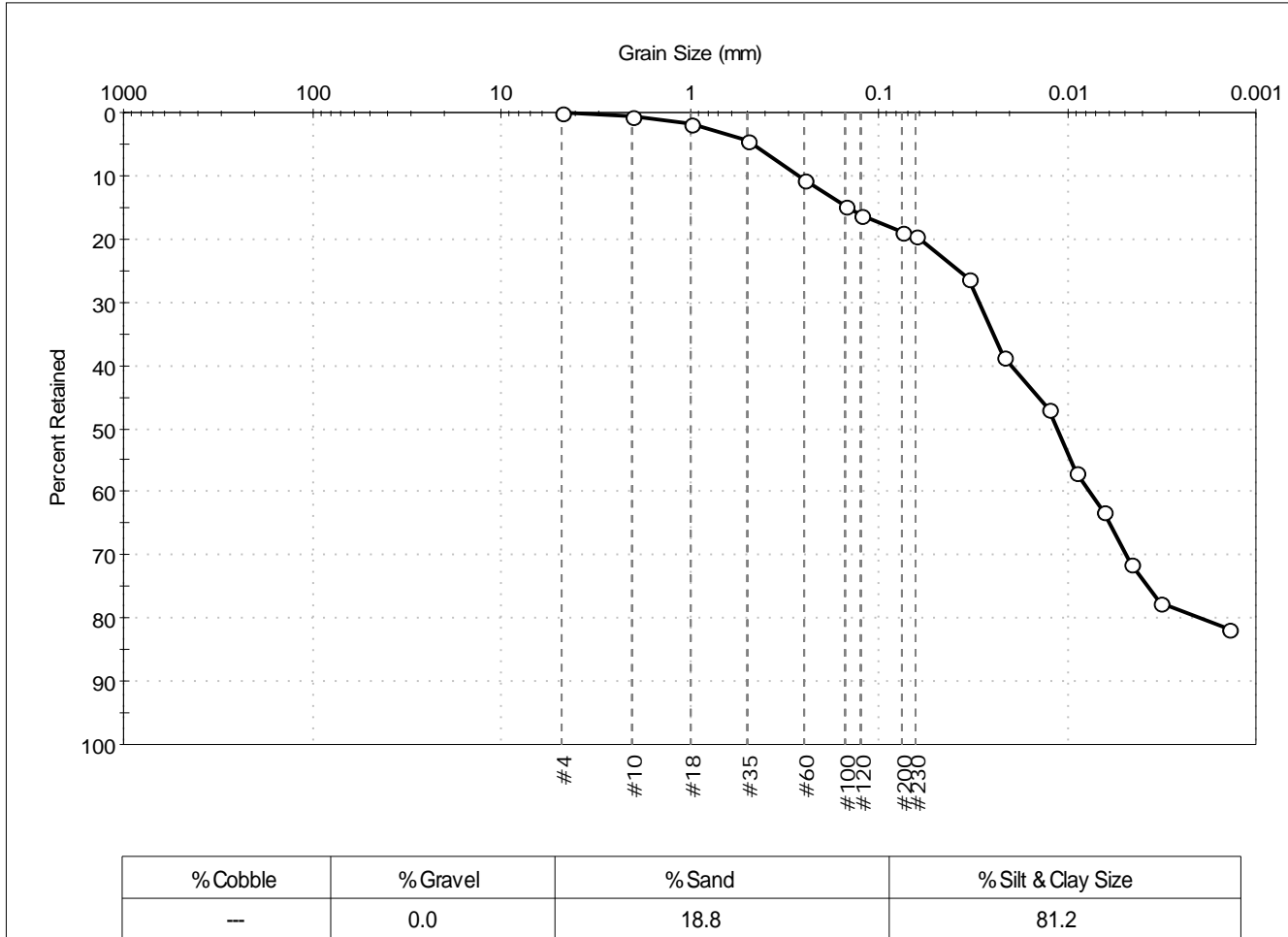
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 115-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0161	Test Date: 11/17/14	Checked By: jdt	
Depth: ---	Test Id: 310153		
Test Comment: ---			
Sample Description: Wet, very dark grayish brown silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	4		
#60	0.25	11		
#100	0.15	15		
#120	0.12	16		
#200	0.075	19		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	26		
---	0.0215	39		
---	0.0126	47		
---	0.0090	57		
---	0.0064	63		
---	0.0046	71		
---	0.0032	78		
---	0.0014	82		

<u>Coefficients</u>	
D ₈₅ = 0.1469 mm	D ₃₀ = 0.0048 mm
D ₆₀ = 0.0196 mm	D ₁₅ = N/A
D ₅₀ = 0.0113 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

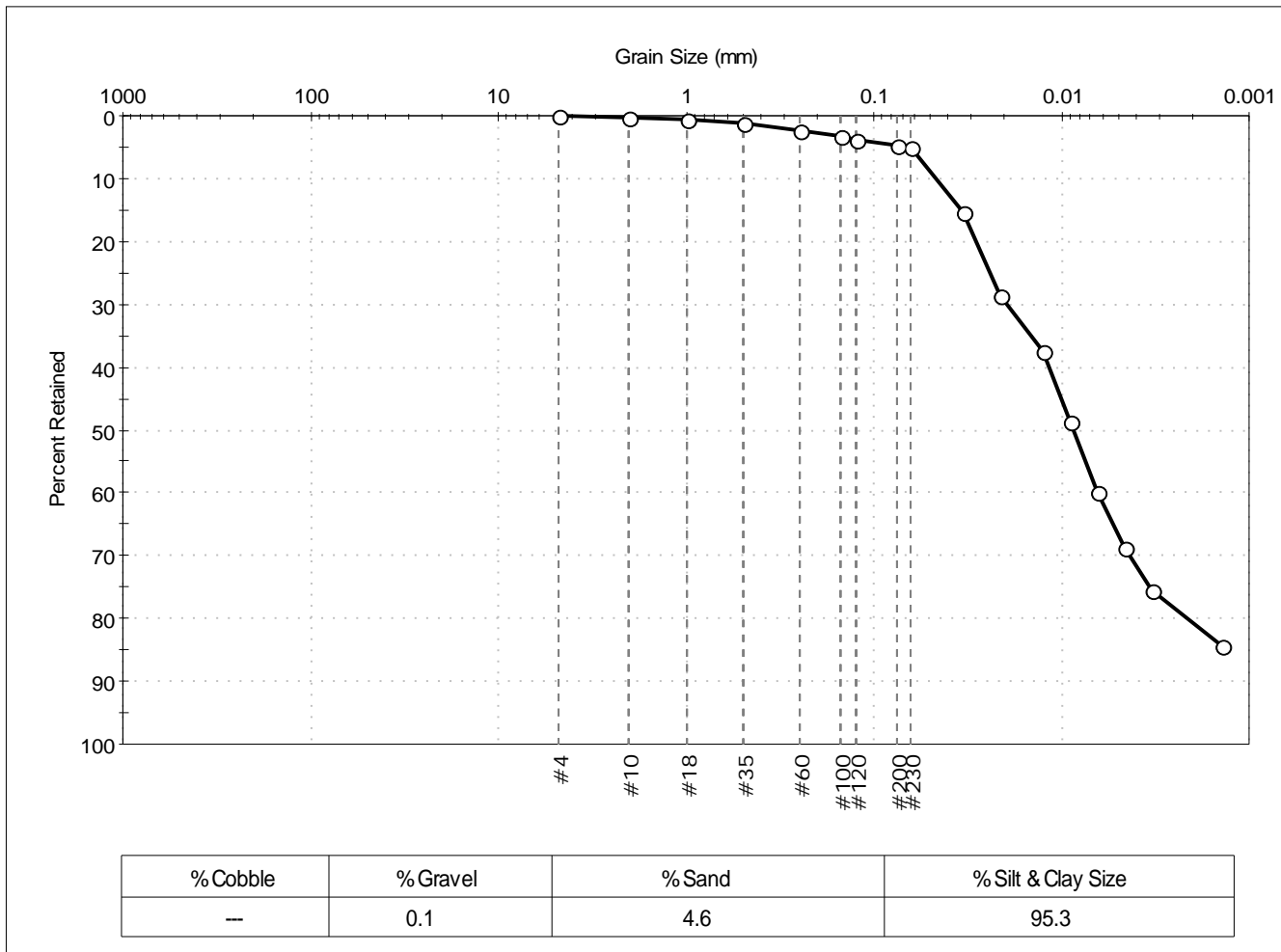
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 115-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0162
 Test Date: 11/17/14
 Checked By: jdt
 Depth: ---
 Test Id: 310154
 Test Comment: ---
 Sample Description: Moist, very dark grayish brown silt with organics
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	2		
#100	0.15	3		
#120	0.12	4		
#200	0.075	5		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	15		
---	0.0214	29		
---	0.0125	38		
---	0.0090	49		
---	0.0064	60		
---	0.0046	69		
---	0.0033	75		
---	0.0014	84		

<u>Coefficients</u>	
D ₈₅ = 0.0335 mm	D ₃₀ = 0.0043 mm
D ₆₀ = 0.0116 mm	D ₁₅ = N/A
D ₅₀ = 0.0086 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

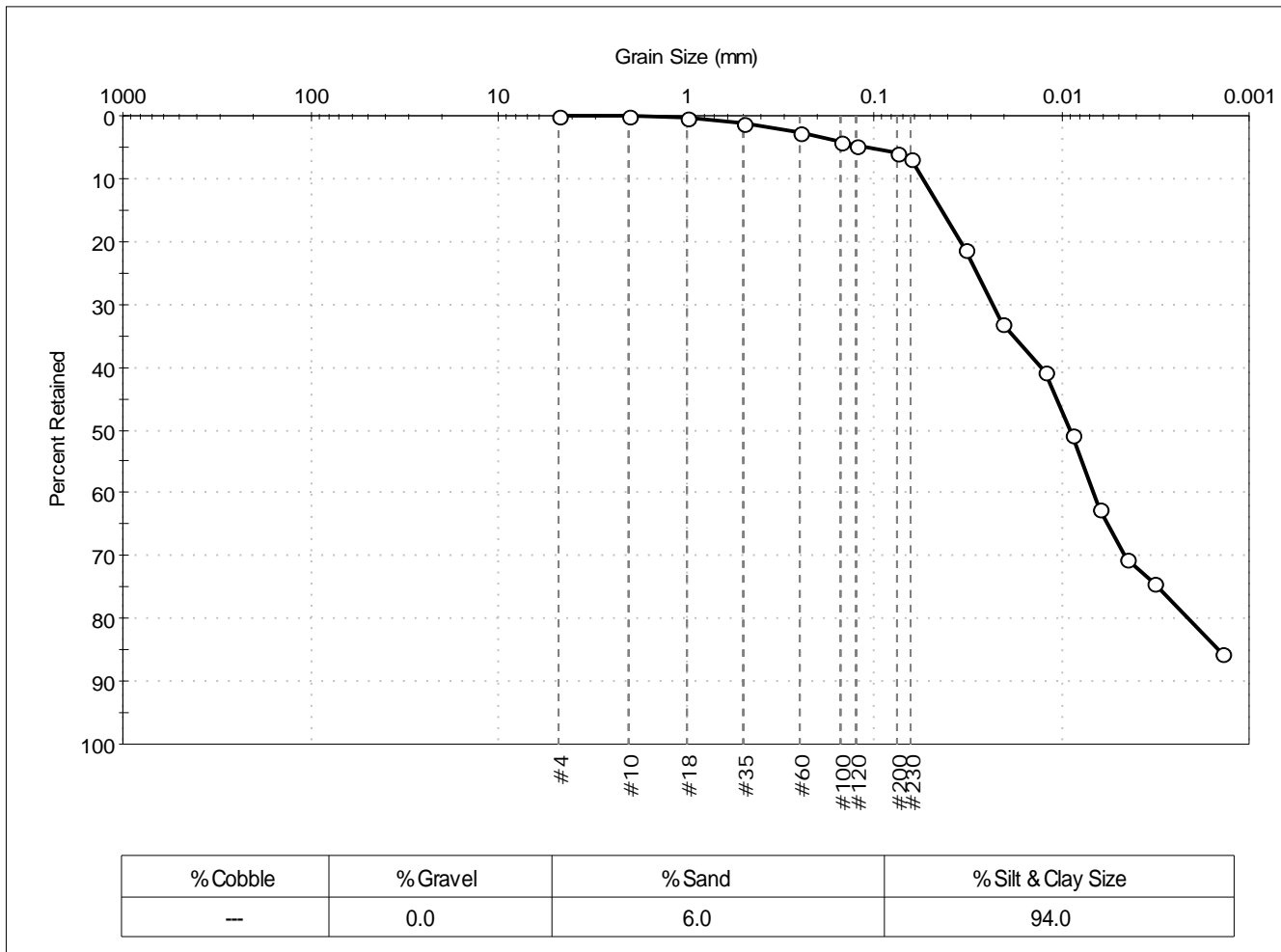
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	115-14LTM	Sample Type:	bag
Sample ID:	NBH14-0163	Test Date:	11/17/14
Depth:	---	Test Id:	310155
Test Comment:	---		
Sample Description:	Moist, very dark grayish brown silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	3		
#100	0.15	4		
#120	0.12	5		
#200	0.075	6		
#230	0.063	7		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	21		
---	0.0209	33		
---	0.0123	41		
---	0.0088	51		
---	0.0063	63		
---	0.0045	70		
---	0.0032	74		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.0430 mm	D ₃₀ = 0.0046 mm
D ₆₀ = 0.0130 mm	D ₁₅ = 0.0015 mm
D ₅₀ = 0.0090 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

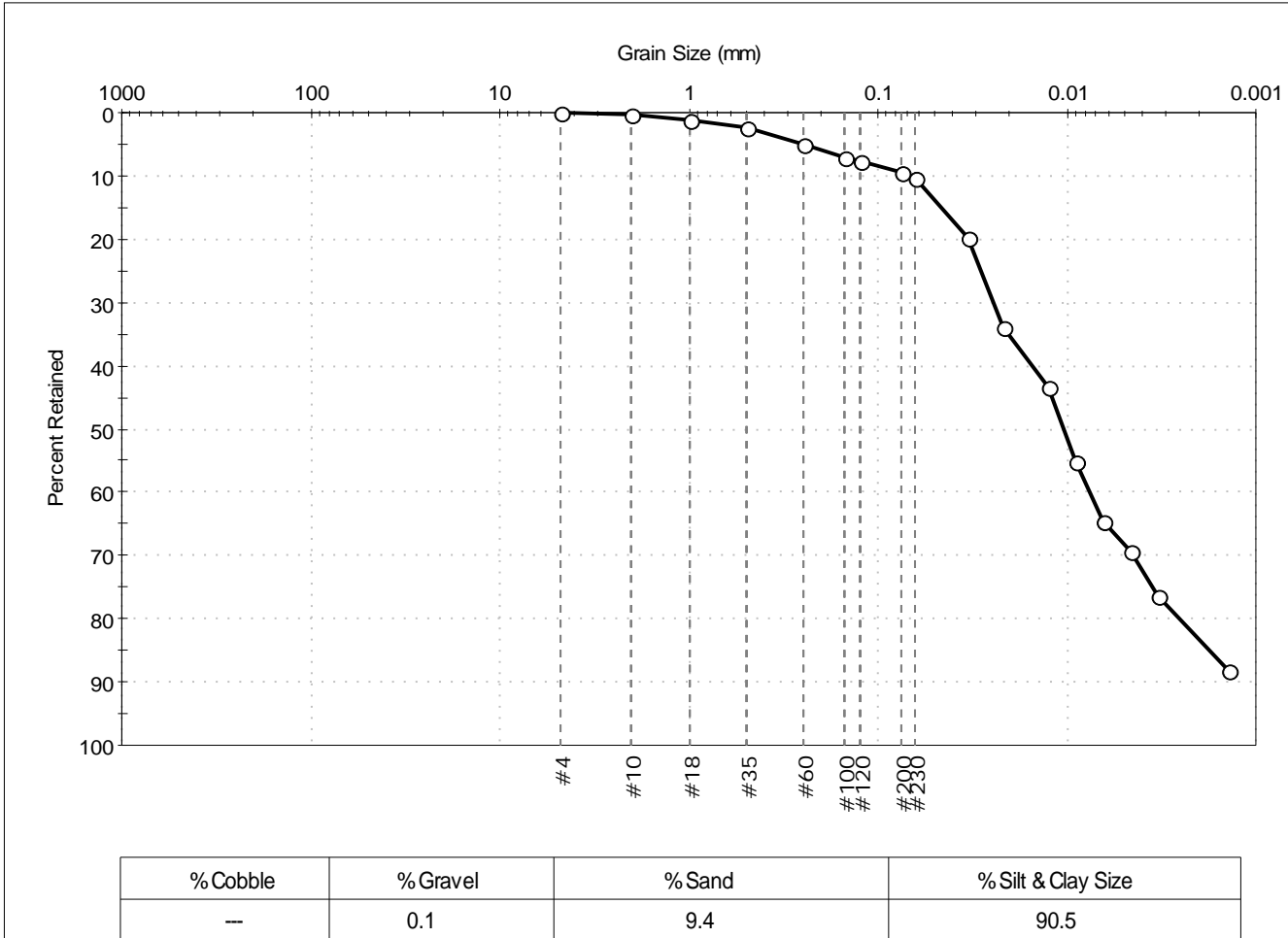
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 115-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0164	Test Date: 11/17/14	Test Id: 310156	
Depth: ---	Test Comment: ---		
Sample Description: Moist, very dark grayish brown silt	Sample Comment: ---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	5		
#100	0.15	7		
#120	0.12	8		
#200	0.075	9		
#230	0.063	10		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	20		
---	0.0216	34		
---	0.0126	43		
---	0.0090	55		
---	0.0065	65		
---	0.0046	69		
---	0.0033	76		
---	0.0014	88		

<u>Coefficients</u>	
D ₈₅ = 0.0463 mm	D ₃₀ = 0.0045 mm
D ₆₀ = 0.0154 mm	D ₁₅ = 0.0018 mm
D ₅₀ = 0.0105 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

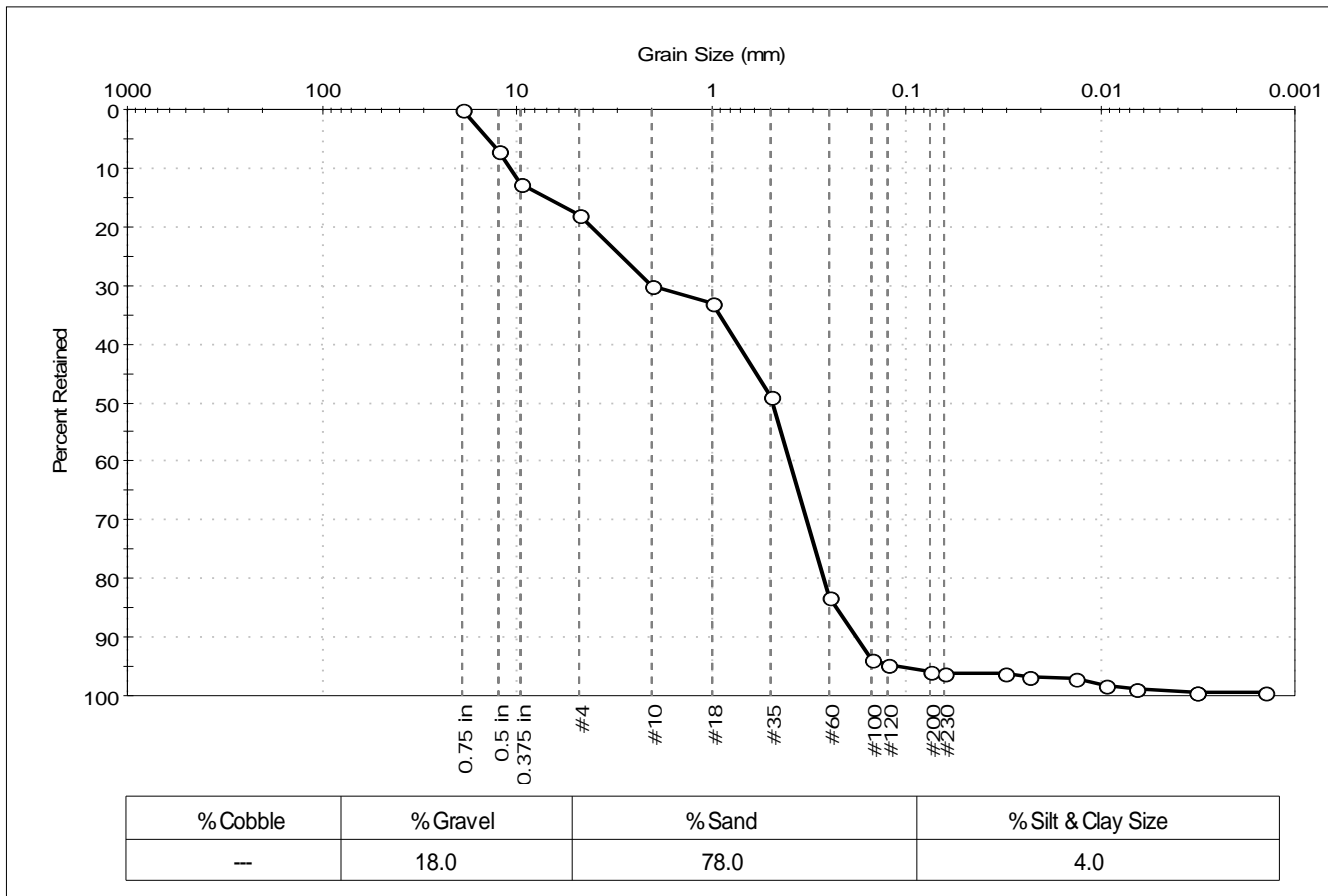
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 154-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0165	Test Date: 11/05/14	Test Id: 310157	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark olive gray sand with gravel	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	7		
0.375 in	9.50	13		
#4	4.75	18		
#10	2.00	30		
#18	1.00	33		
#35	0.50	49		
#60	0.25	83		
#100	0.15	94		
#120	0.12	95		
#200	0.075	96.0		
#230	0.063	96		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0314	96		
---	0.0233	97		
---	0.0134	97		
---	0.0095	98		
---	0.0066	99		
---	0.0032	99		
---	0.0032	99		
---	0.0014	99		

Coefficients

D ₈₅ = 7.0459 mm	D ₃₀ = 0.3264 mm
D ₆₀ = 0.7386 mm	D ₁₅ = 0.2290 mm
D ₅₀ = 0.4890 mm	D ₁₀ = 0.1796 mm
C _u = 4.112	C _c = 0.803

Classification

ASTM	Poorly graded sand with gravel (SP)
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

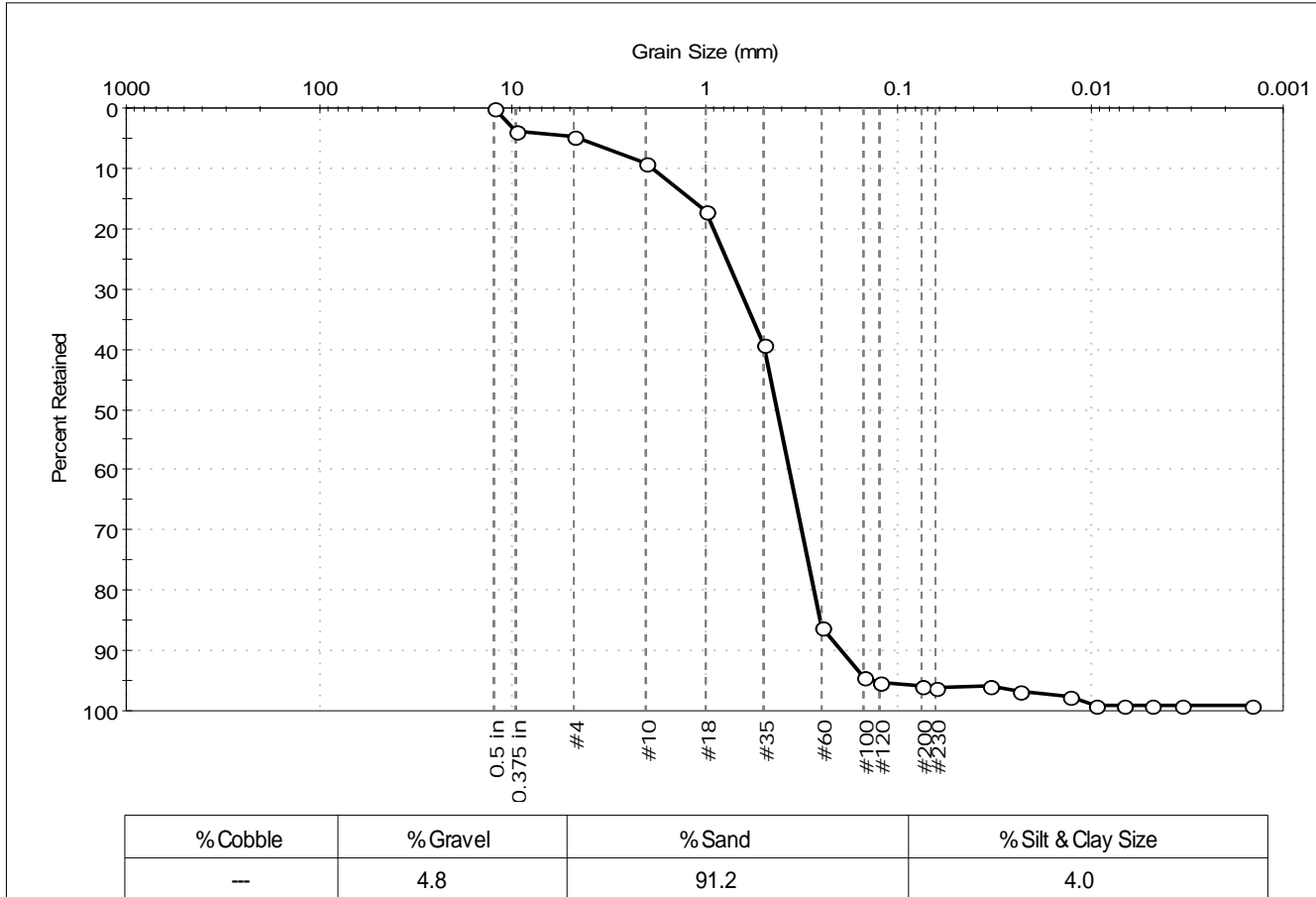
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 154-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0166	Test Date: 11/05/14	Test Id: 310158	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark olive gray sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	4		
#4	4.75	5		
#10	2.00	9		
#18	1.00	17		
#35	0.50	39		
#60	0.25	86		
#100	0.15	94		
#120	0.12	95		
#200	0.075	96.0		
#230	0.063	96		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	96		
---	0.0231	97		
---	0.0128	98		
---	0.0094	99		
---	0.0068	99		
---	0.0048	99		
---	0.0034	99		
---	0.0015	99		

Coefficients

D ₈₅ = 1.1966 mm	D ₃₀ = 0.3175 mm
D ₆₀ = 0.4937 mm	D ₁₅ = 0.2546 mm
D ₅₀ = 0.4261 mm	D ₁₀ = 0.1974 mm
C _u = 2.501	C _c = 1.034

Classification

ASTM	Poorly graded sand (SP)
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

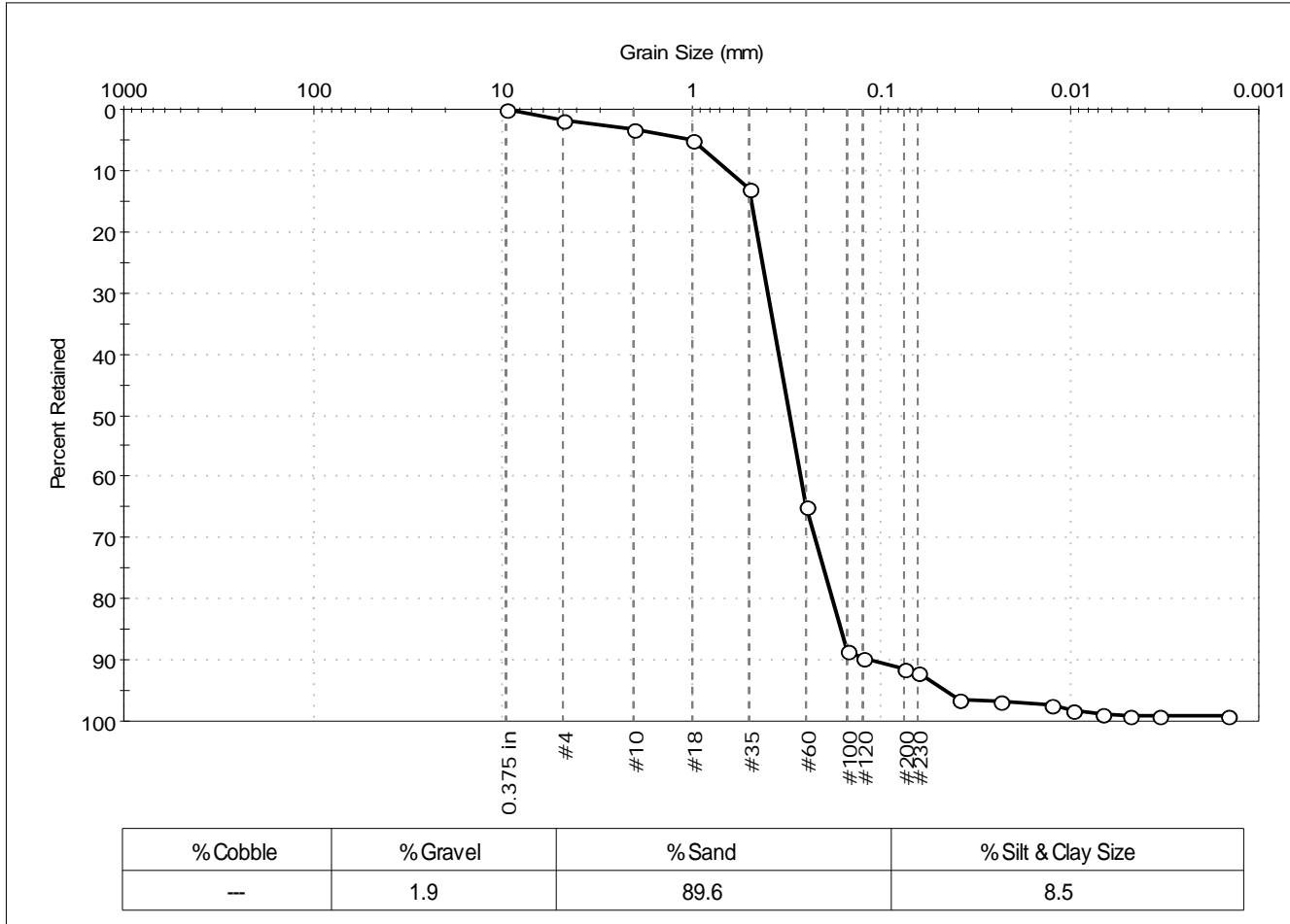
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	154-14LTM	Sample Type:	bag
Sample ID:	NBH14-0167	Test Date:	11/04/14
Depth:	---	Test Id:	310159
Test Comment:	---		
Sample Description:	Moist, very dark gray sand with silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	3		
#18	1.00	5		
#35	0.50	13		
#60	0.25	65		
#100	0.15	88		
#120	0.12	90		
#200	0.075	91.5		
#230	0.063	92		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0381	96		
---	0.0234	97		
---	0.0126	97		
---	0.0095	98		
---	0.0068	99		
---	0.0048	99		
---	0.0034	99		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 0.4871 mm	D ₃₀ = 0.2235 mm
D ₆₀ = 0.3485 mm	D ₁₅ = 0.1616 mm
D ₅₀ = 0.3048 mm	D ₁₀ = 0.1180 mm
C _u = 2.953	C _c = 1.215

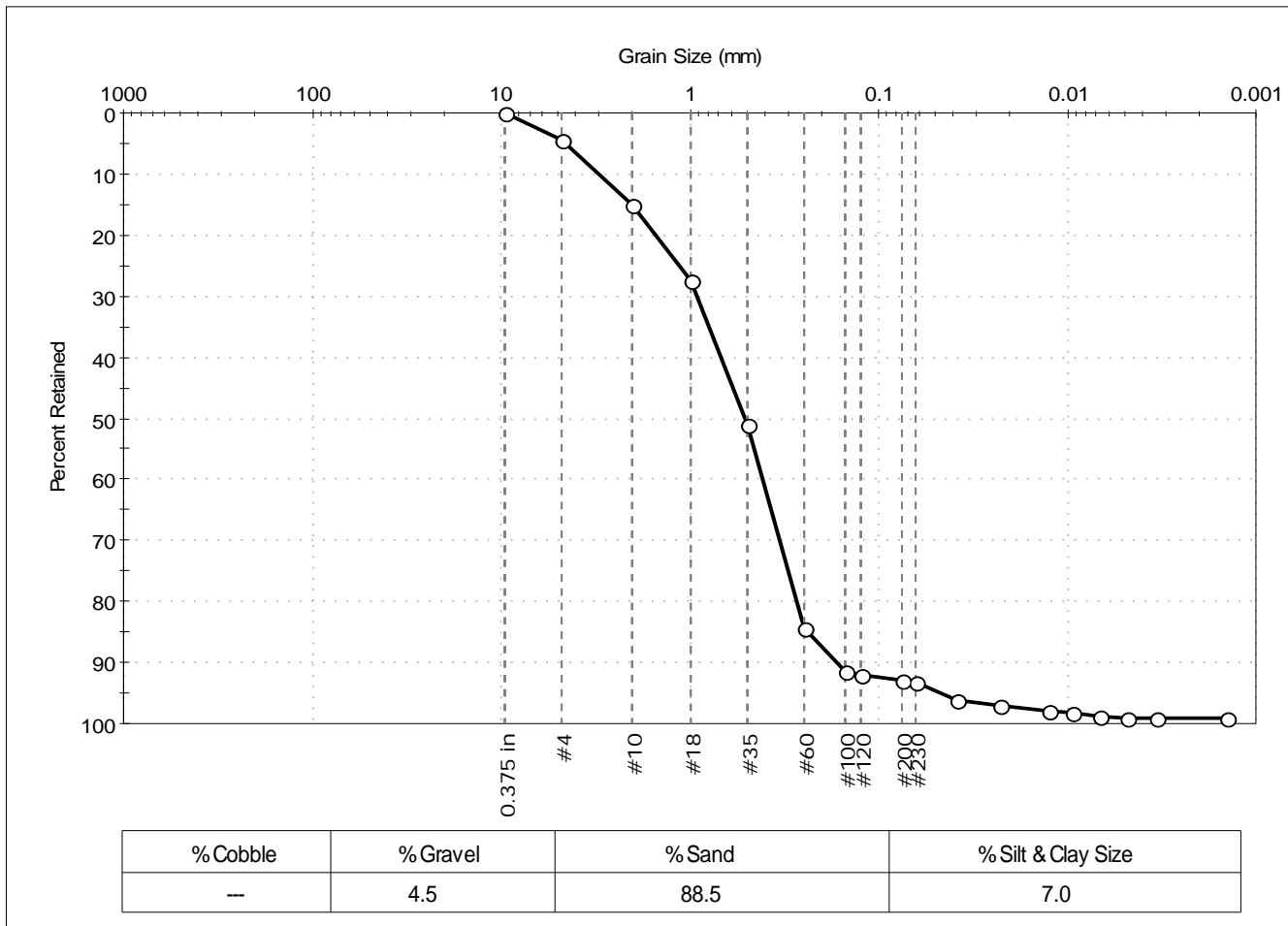
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---
Dispersion Device :	Apparatus A - Mech Mixer
Dispersion Period :	1 minute
Specific Gravity :	2.65
Separation of Sample:	#230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	154-14LTM	Sample Type:	bag
Sample ID:	NBH14-0168	Test Date:	11/04/14
Depth:	---	Test Id:	310160
Test Comment:	---		
Sample Description:	Moist, very dark olive gray sand with silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	4		
#10	2.00	15		
#18	1.00	27		
#35	0.50	51		
#60	0.25	84		
#100	0.15	92		
#120	0.12	92		
#200	0.075	93.0		
#230	0.063	93		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0381	96		
---	0.0229	97		
---	0.0124	98		
---	0.0095	98		
---	0.0067	99		
---	0.0048	99		
---	0.0034	99		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 2.0120 mm	D ₃₀ = 0.3366 mm
D ₆₀ = 0.6908 mm	D ₁₅ = 0.2383 mm
D ₅₀ = 0.5142 mm	D ₁₀ = 0.1669 mm
C _u = 4.139	C _c = 0.983

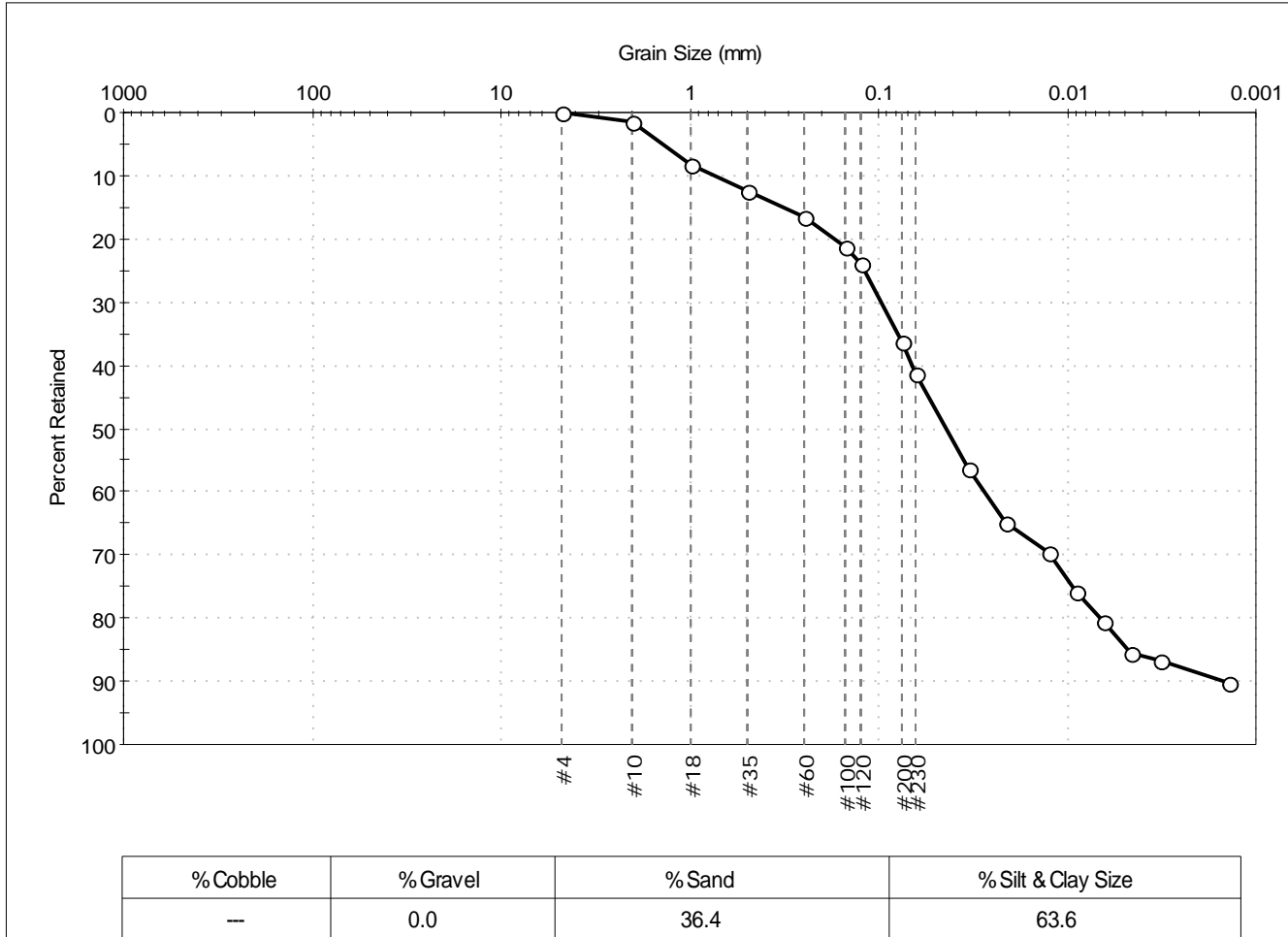
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 139-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0169	Test Date: 11/05/14	Test Id: 310161	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark grayish brown sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	8		
#35	0.50	13		
#60	0.25	16		
#100	0.15	21		
#120	0.12	24		
#200	0.075	36		
#230	0.063	41		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	56		
---	0.0214	65		
---	0.0125	70		
---	0.0090	76		
---	0.0064	81		
---	0.0046	85		
---	0.0033	87		
---	0.0014	90		

<u>Coefficients</u>	
D ₈₅ = 0.3212 mm	D ₃₀ = 0.0124 mm
D ₆₀ = 0.0657 mm	D ₁₅ = 0.0047 mm
D ₅₀ = 0.0434 mm	D ₁₀ = 0.0015 mm
C _u = 43.800	C _c = 1.560

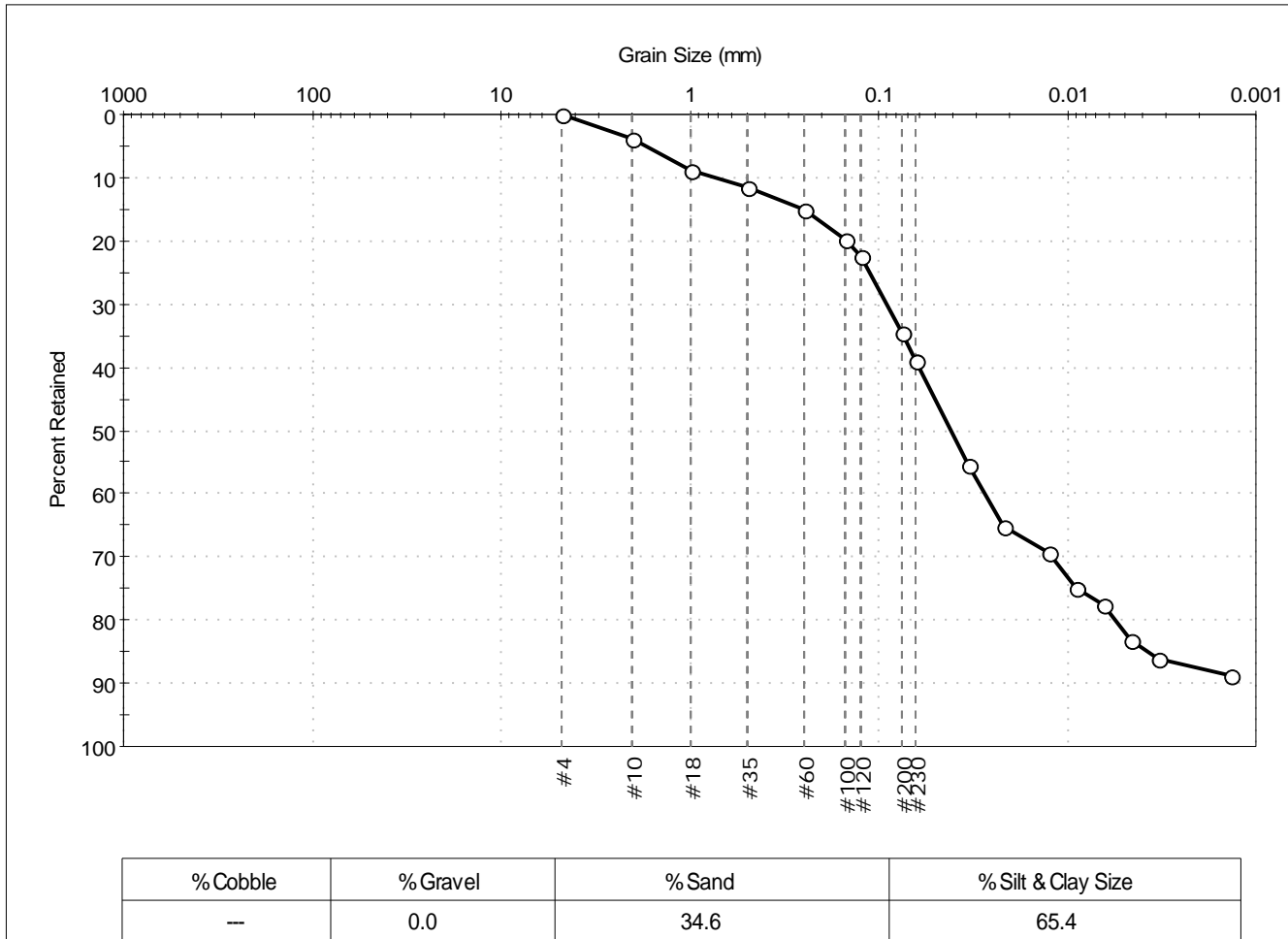
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 139-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0170	Test Date: 11/06/14	Test Id: 310163	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark grayish brown sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	4		
#18	1.00	9		
#35	0.50	12		
#60	0.25	15		
#100	0.15	20		
#120	0.12	22		
#200	0.075	35		
#230	0.063	39		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	55		
---	0.0217	65		
---	0.0126	69		
---	0.0091	75		
---	0.0064	78		
---	0.0046	83		
---	0.0033	86		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.2494 mm	D ₃₀ = 0.0121 mm
D ₆₀ = 0.0603 mm	D ₁₅ = 0.0037 mm
D ₅₀ = 0.0412 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

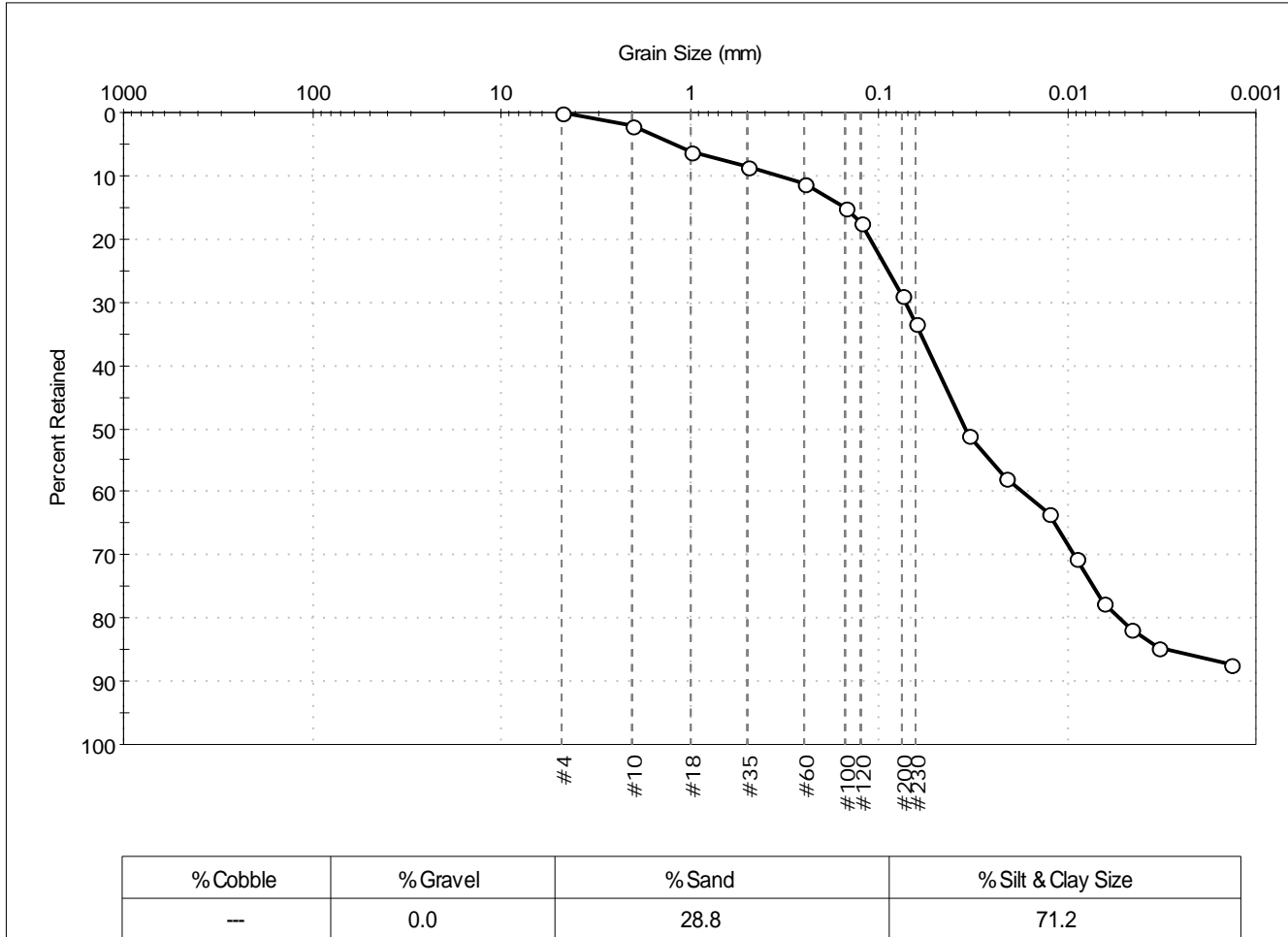
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 139-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0171	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310164		
Test Comment: ---			
Sample Description: Moist, very dark grayish brown silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	6		
#35	0.50	8		
#60	0.25	11		
#100	0.15	15		
#120	0.12	17		
#200	0.075	29		
#230	0.063	33		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0332	51		
---	0.0213	58		
---	0.0125	64		
---	0.0090	71		
---	0.0064	78		
---	0.0046	82		
---	0.0033	85		
---	0.0014	87		

<u>Coefficients</u>	
D ₈₅ = 0.1515 mm	D ₃₀ = 0.0092 mm
D ₆₀ = 0.0494 mm	D ₁₅ = 0.0029 mm
D ₅₀ = 0.0344 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

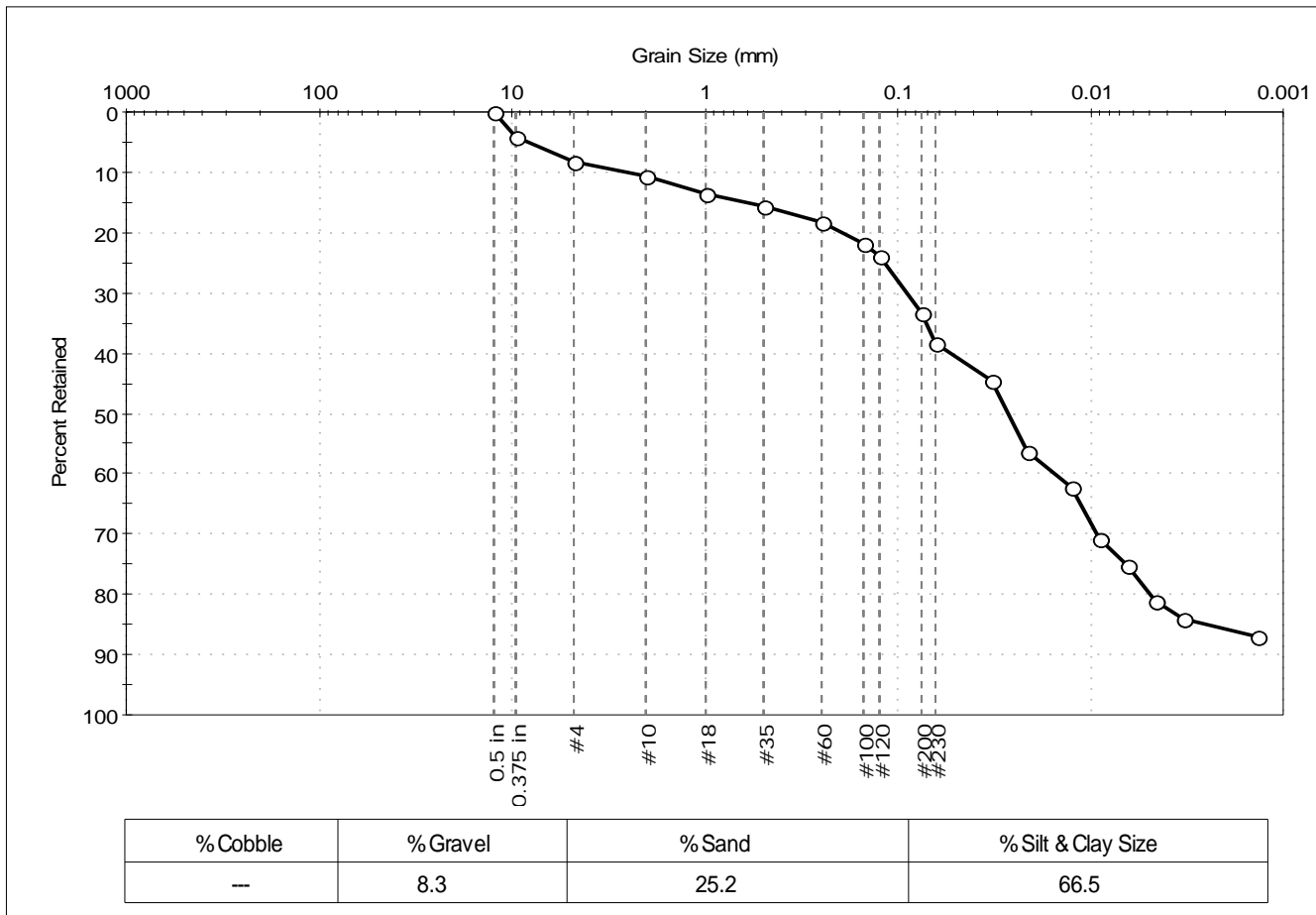
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 139-14LTM	Sample Type: bag
Sample ID: NBH14-0172	Test Date: 11/06/14
Depth: ---	Test Id: 310165
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dark grayish brown sandy silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	4		
#4	4.75	8		
#10	2.00	11		
#18	1.00	14		
#35	0.50	16		
#60	0.25	18		
#100	0.15	22		
#120	0.12	24		
#200	0.075	33		
#230	0.063	38		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0329	45		
---	0.0214	56		
---	0.0125	62		
---	0.0090	71		
---	0.0064	75		
---	0.0046	81		
---	0.0033	84		
---	0.0014	87		

Coefficients

D ₈₅ = 0.6275 mm	D ₃₀ = 0.0093 mm
D ₆₀ = 0.0529 mm	D ₁₅ = 0.0024 mm
D ₅₀ = 0.0270 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

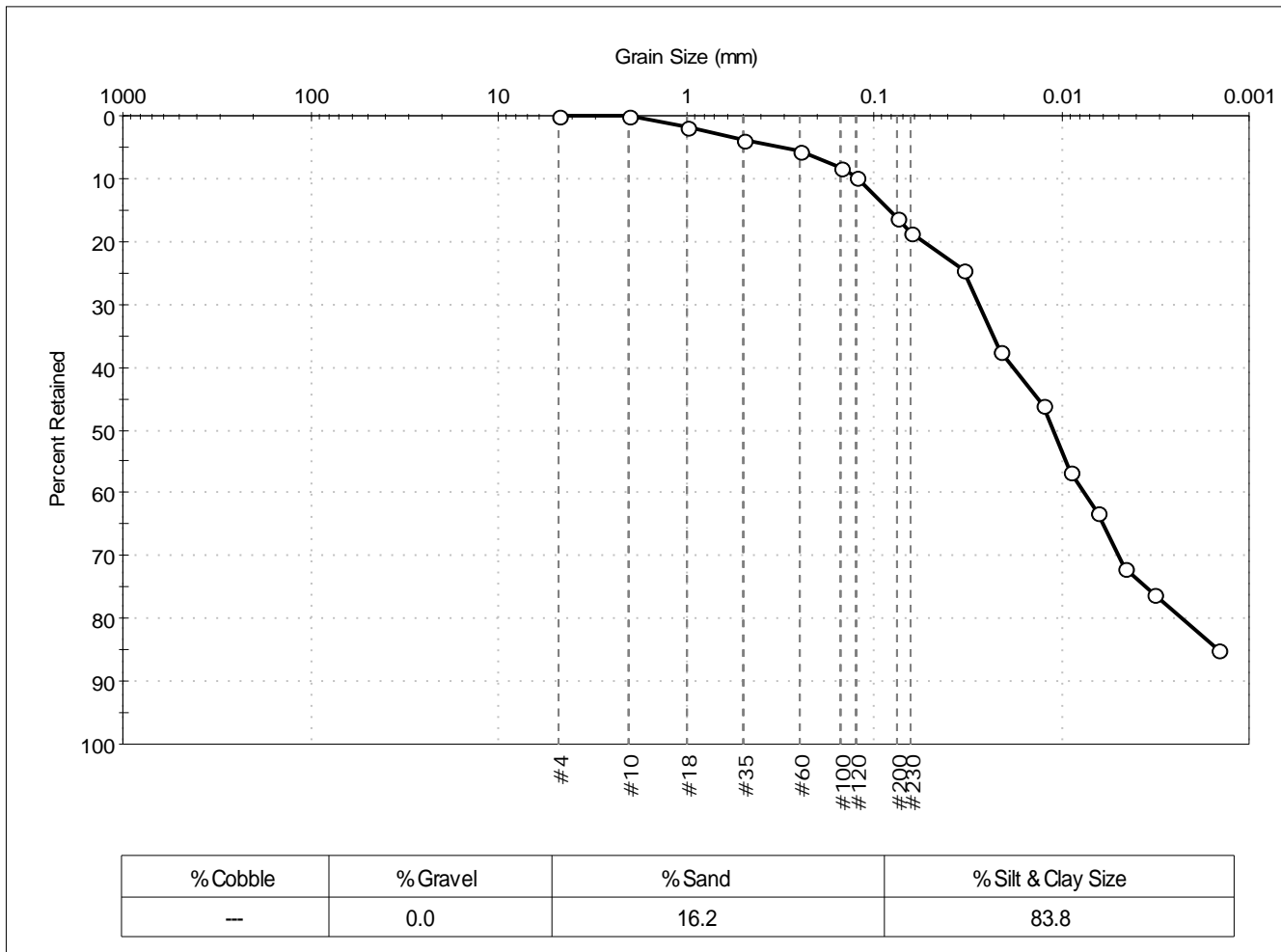
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	131-14LTM	Sample Type:	bag
Sample ID:	NBH14-0173	Test Date:	11/05/14
Depth:	---	Test Id:	310166
Test Comment:	---		
Sample Description:	Moist, very dark olive gray silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	4		
#60	0.25	6		
#100	0.15	8		
#120	0.12	10		
#200	0.075	16		
#230	0.063	19		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	24		
---	0.0213	37		
---	0.0125	46		
---	0.0089	57		
---	0.0064	63		
---	0.0046	72		
---	0.0033	76		
---	0.0014	85		

<u>Coefficients</u>	
D ₈₅ = 0.0825 mm	D ₃₀ = 0.0049 mm
D ₆₀ = 0.0180 mm	D ₁₅ = N/A
D ₅₀ = 0.0110 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

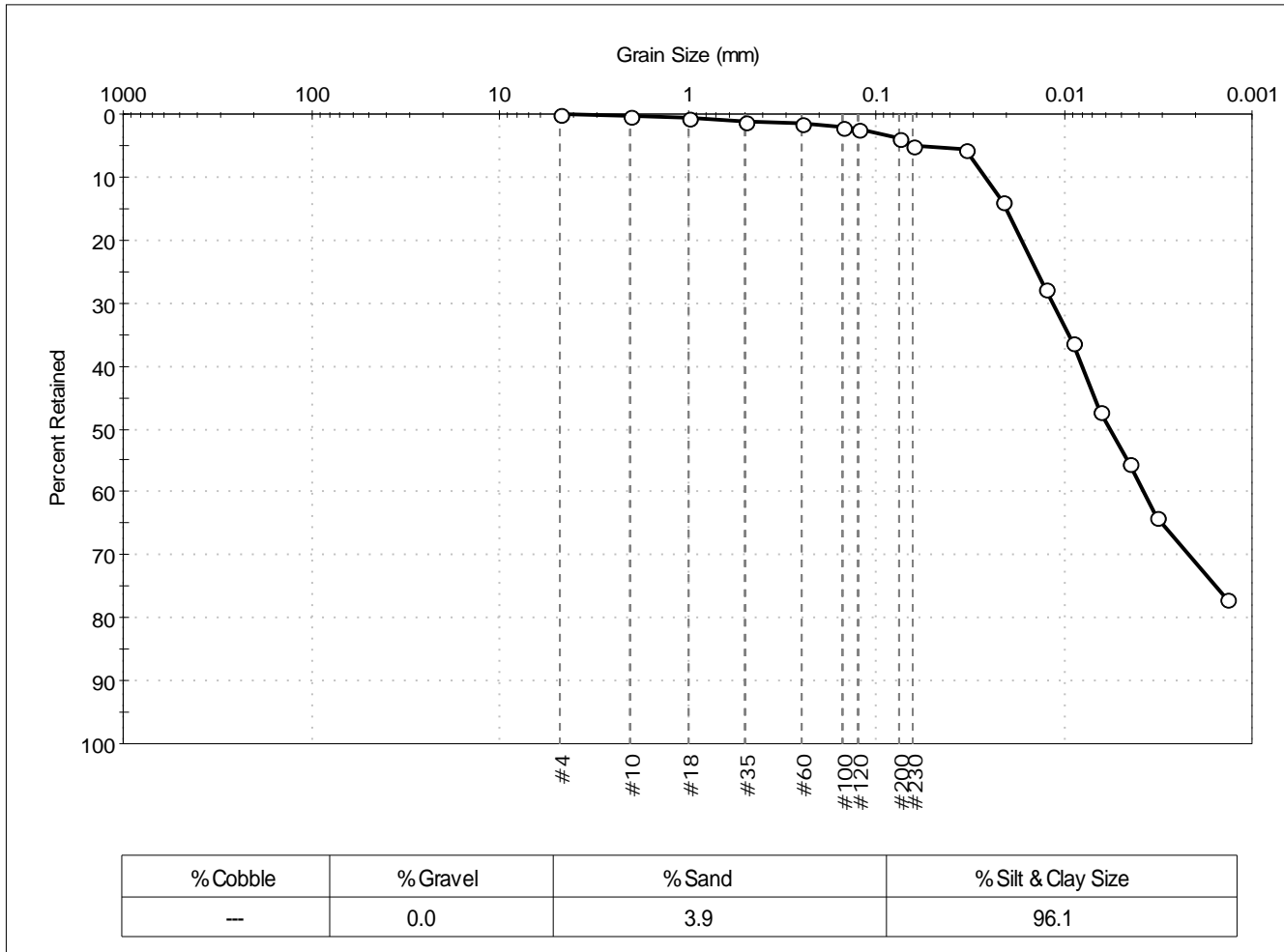
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 131-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0173DUP	Test Date: 11/12/14	Checked By: jdt	
Depth: ---	Test Id: 313931		
Test Comment: ---			
Sample Description: Wet, dark grayish brown silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	4		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	6		
---	0.0213	14		
---	0.0125	28		
---	0.0089	36		
---	0.0064	47		
---	0.0045	56		
---	0.0032	64		
---	0.0014	77		

<u>Coefficients</u>	
D ₈₅ = 0.0204 mm	D ₃₀ = 0.0022 mm
D ₆₀ = 0.0079 mm	D ₁₅ = N/A
D ₅₀ = 0.0057 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

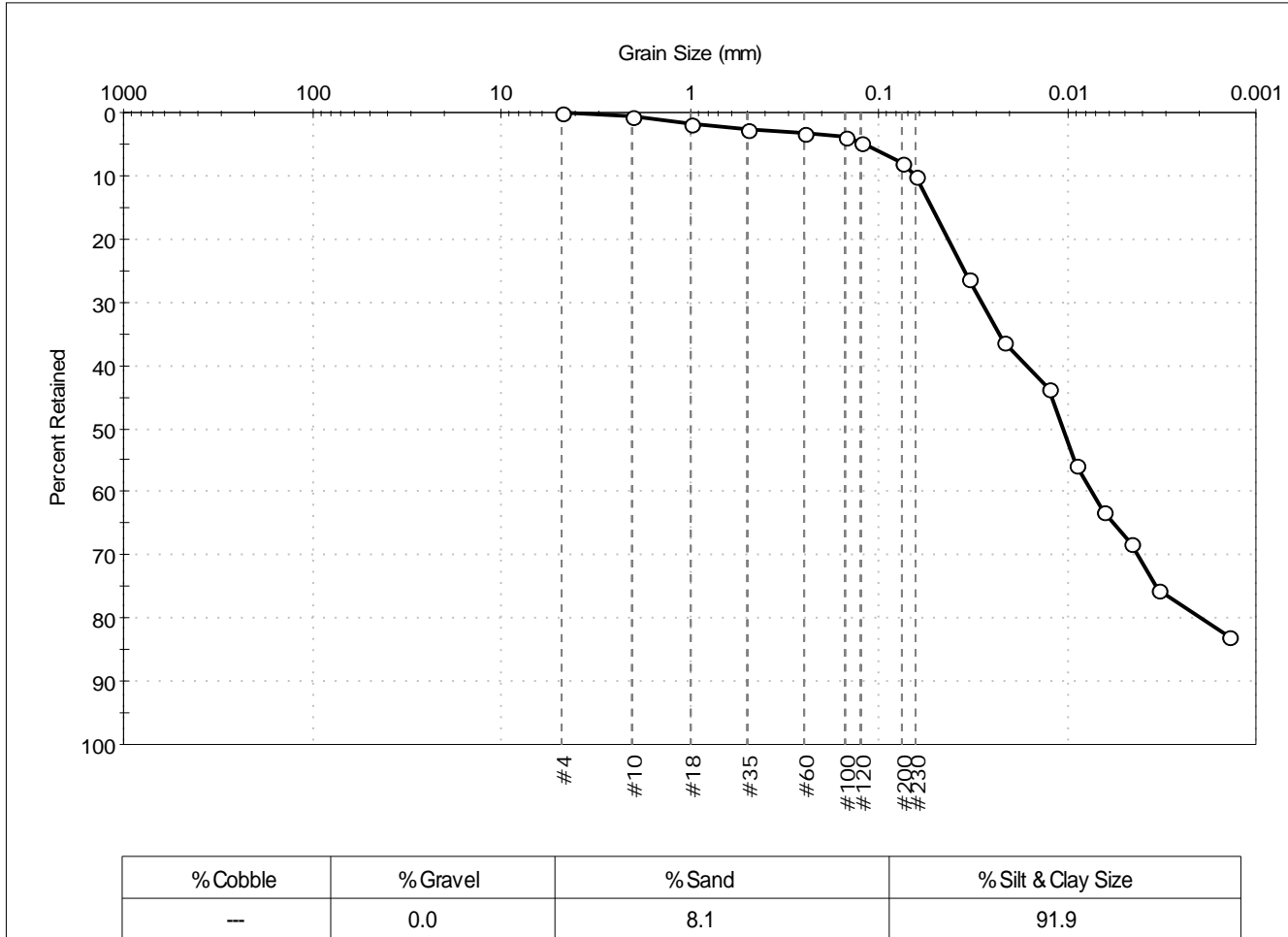
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 131-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0174	Test Date: 11/05/14	Test Id: 310167	
Depth: ---	Test Comment: ---		
Sample Description: Moist, very dark olive gray silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	3		
#60	0.25	3		
#100	0.15	4		
#120	0.12	5		
#200	0.075	8		
#230	0.063	10		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0334	26		
---	0.0216	36		
---	0.0126	44		
---	0.0090	56		
---	0.0064	63		
---	0.0046	68		
---	0.0033	75		
---	0.0014	83		

<u>Coefficients</u>	
D ₈₅ = 0.0517 mm	D ₃₀ = 0.0042 mm
D ₆₀ = 0.0163 mm	D ₁₅ = N/A
D ₅₀ = 0.0106 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

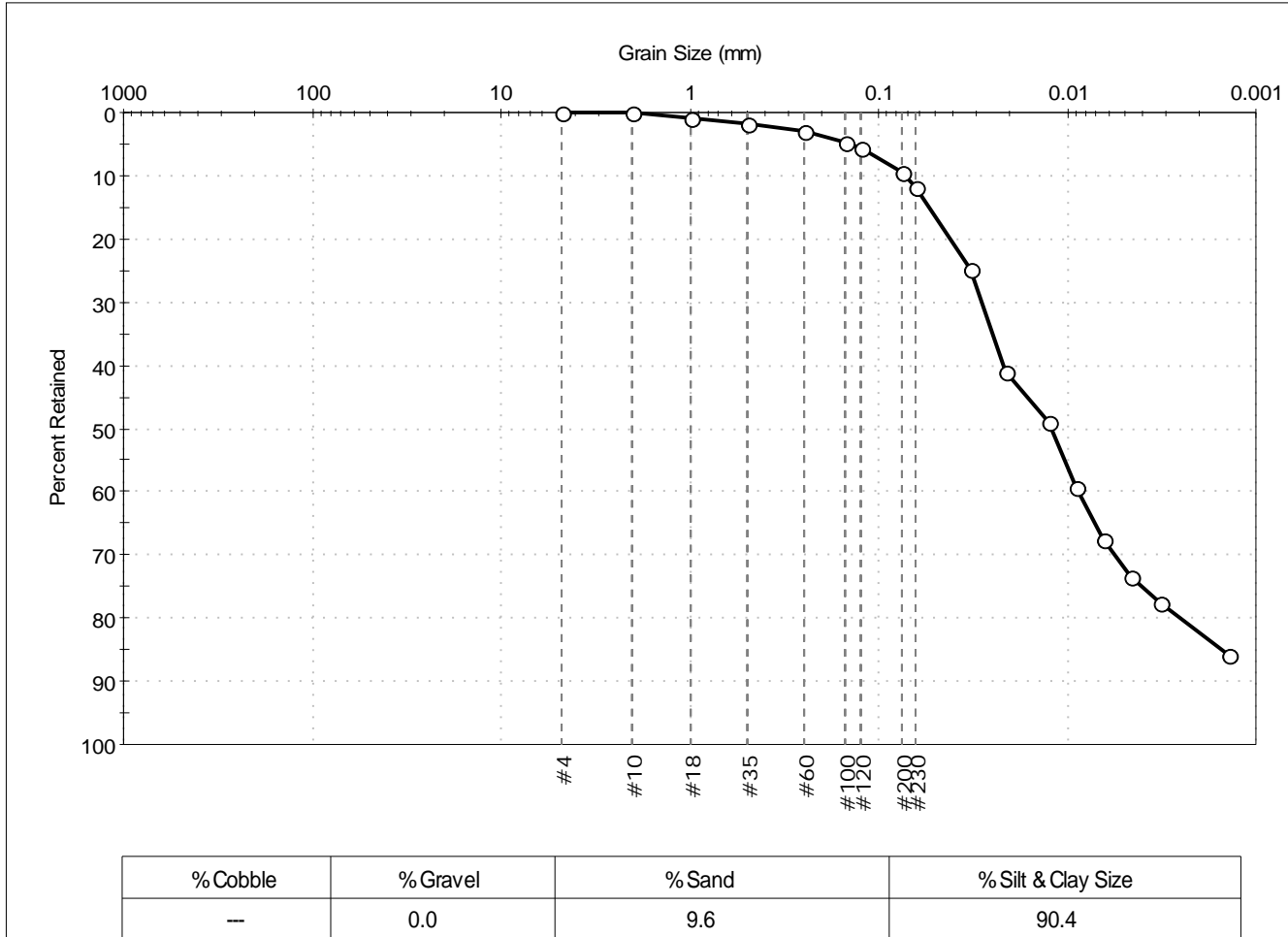
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 131-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0175	Test Date: 11/05/14	Test Id: 310168	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	3		
#100	0.15	5		
#120	0.12	6		
#200	0.075	10		
#230	0.063	12		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	25		
---	0.0214	41		
---	0.0125	49		
---	0.0090	59		
---	0.0064	67		
---	0.0046	74		
---	0.0033	78		
---	0.0014	86		

Coefficients	
D ₈₅ = 0.0535 mm	D ₃₀ = 0.0056 mm
D ₆₀ = 0.0219 mm	D ₁₅ = 0.0015 mm
D ₅₀ = 0.0122 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

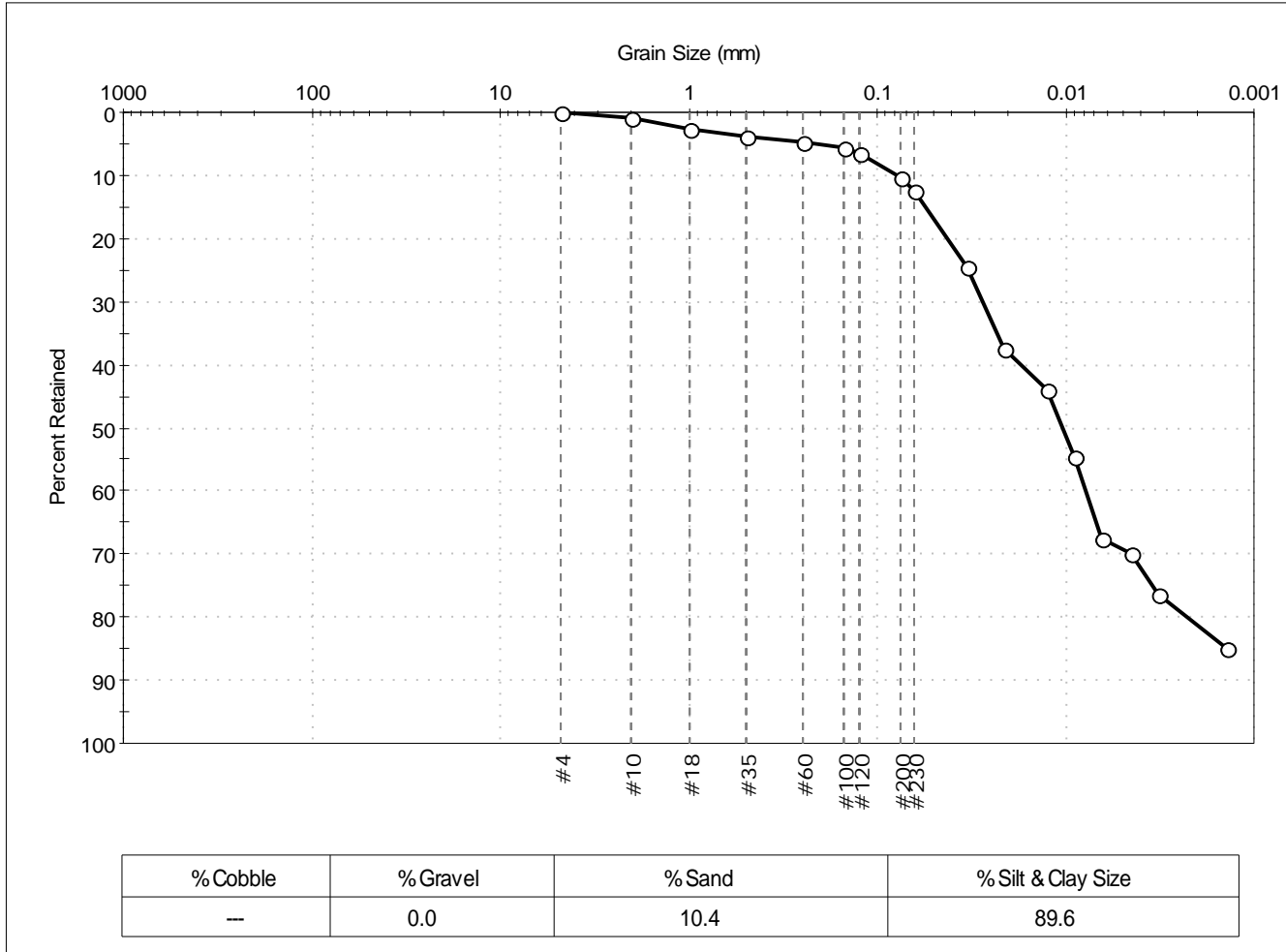
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Specific Gravity	: 2.65
Separation of Sample	: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 131-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0176	Test Date: 11/05/14	Test Id: 310169	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	4		
#60	0.25	5		
#100	0.15	6		
#120	0.12	7		
#200	0.075	10		
#230	0.063	12		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	24		
---	0.0214	37		
---	0.0125	44		
---	0.0090	55		
---	0.0065	68		
---	0.0045	70		
---	0.0033	76		
---	0.0014	85		

<u>Coefficients</u>	
D ₈₅ = 0.0545 mm	D ₃₀ = 0.0045 mm
D ₆₀ = 0.0172 mm	D ₁₅ = N/A
D ₅₀ = 0.0103 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

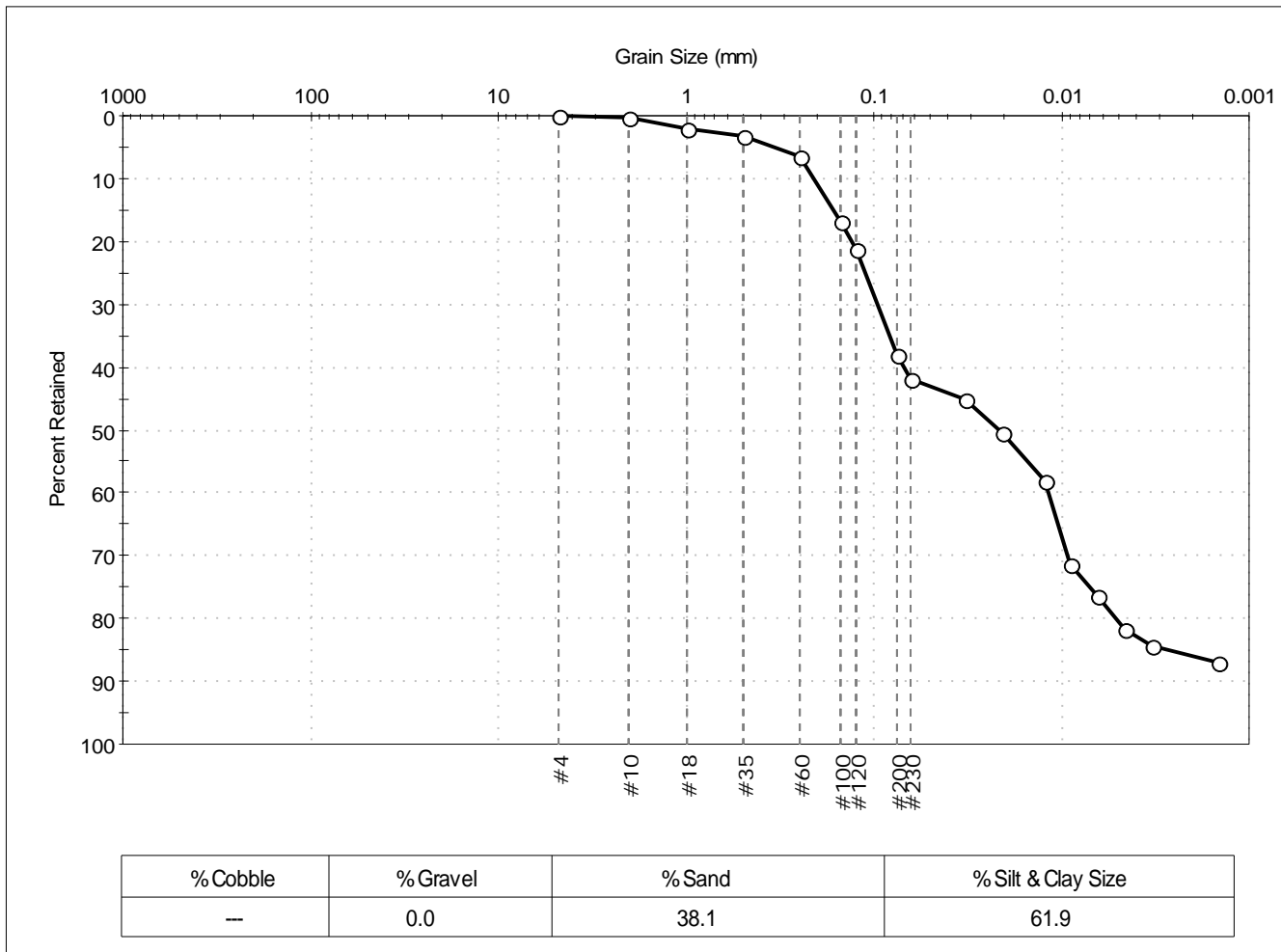
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 247-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0177
 Test Date: 11/06/14
 Checked By: jdt
 Depth: ---
 Test Id: 310170
 Test Comment: ---
 Sample Description: Moist, very dark grayish brown sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	3		
#60	0.25	7		
#100	0.15	17		
#120	0.12	21		
#200	0.075	38		
#230	0.063	42		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0322	45		
---	0.0208	50		
---	0.0122	58		
---	0.0090	71		
---	0.0064	76		
---	0.0046	82		
---	0.0033	84		
---	0.0014	87		

<u>Coefficients</u>	
D ₈₅ = 0.1638 mm	D ₃₀ = 0.0093 mm
D ₆₀ = 0.0689 mm	D ₁₅ = 0.0027 mm
D ₅₀ = 0.0215 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

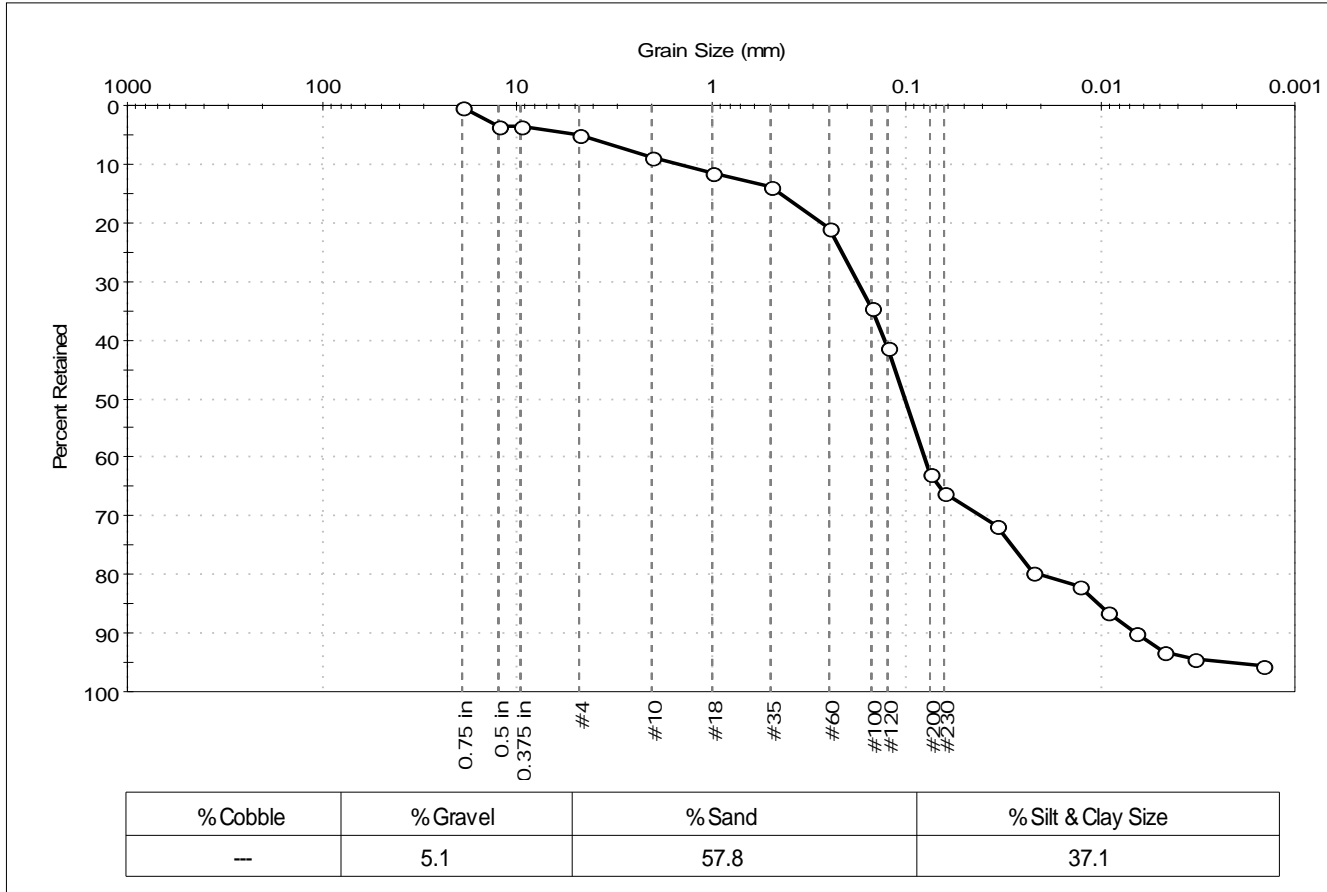
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 247-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0178	Test Date: 11/08/14	Checked By: jdt	
Depth: ---	Test Id: 310171		
Test Comment: ---			
Sample Description: Moist, very dark olive gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	4		
0.375 in	9.50	4		
#4	4.75	5		
#10	2.00	9		
#18	1.00	12		
#35	0.50	14		
#60	0.25	21		
#100	0.15	35		
#120	0.12	41		
#200	0.075	63		
#230	0.063	66		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0342	72		
---	0.0221	80		
---	0.0129	82		
---	0.0092	86		
---	0.0066	90		
---	0.0047	93		
---	0.0033	94		
---	0.0015	95		

<u>Coefficients</u>	
D ₈₅ = 0.4512 mm	D ₃₀ = 0.0412 mm
D ₆₀ = 0.1293 mm	D ₁₅ = 0.0102 mm
D ₅₀ = 0.1016 mm	D ₁₀ = 0.0065 mm
C _u = 19.892	C _c = 2.020

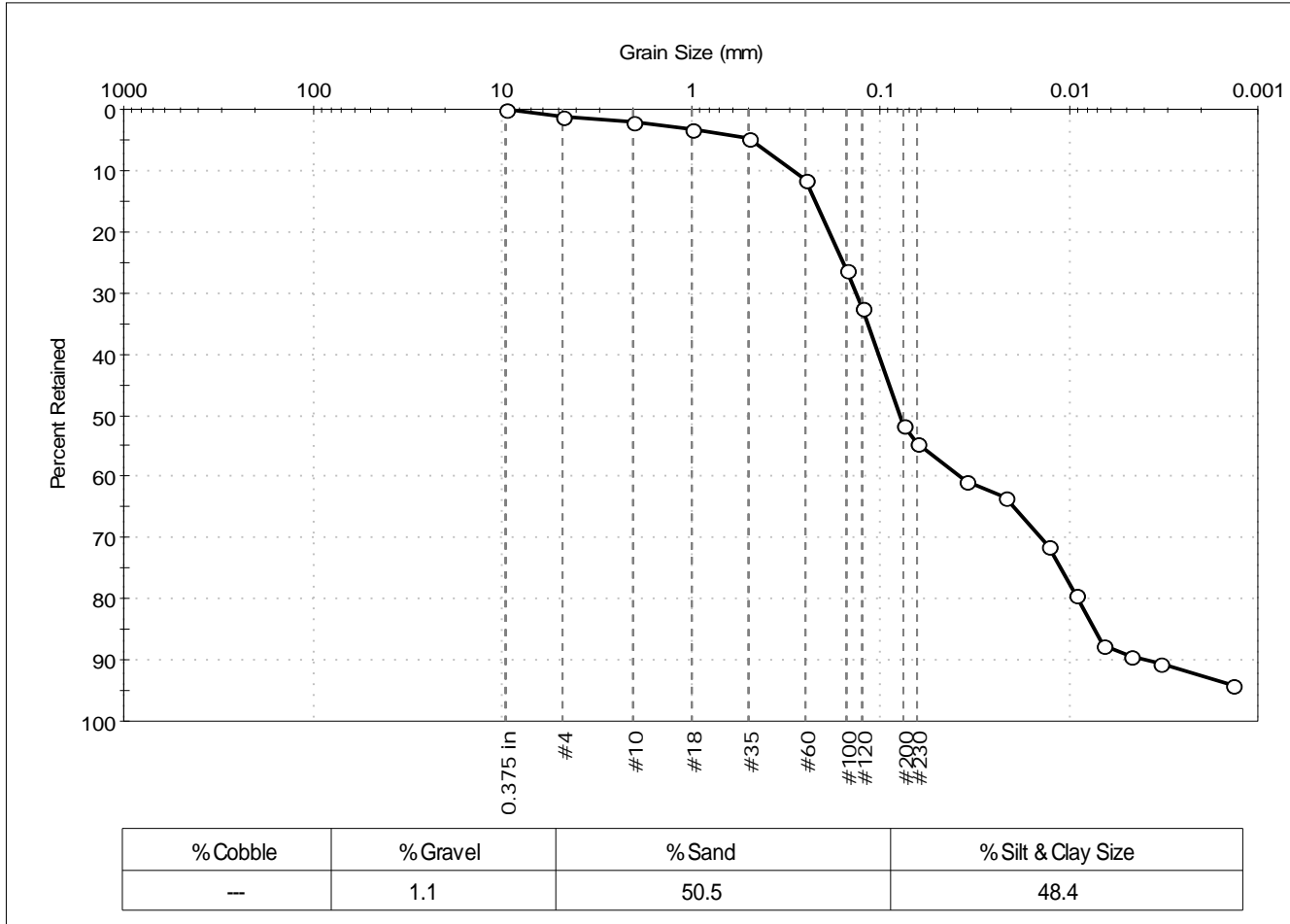
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 247-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0179	Test Date: 11/04/14	Checked By: jdt	
Depth: ---	Test Id: 310172		
Test Comment: ---			
Sample Description: Wet, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	3		
#35	0.50	5		
#60	0.25	11		
#100	0.15	26		
#120	0.12	32		
#200	0.075	52		
#230	0.063	54		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0353	61		
---	0.0217	63		
---	0.0128	71		
---	0.0092	79		
---	0.0066	88		
---	0.0047	89		
---	0.0033	91		
---	0.0014	94		

Coefficients

D ₈₅ = 0.2209 mm	D ₃₀ = 0.0141 mm
D ₆₀ = 0.1021 mm	D ₁₅ = 0.0073 mm
D ₅₀ = 0.0782 mm	D ₁₀ = 0.0039 mm
C _u = 26.179	C _c = 0.499

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

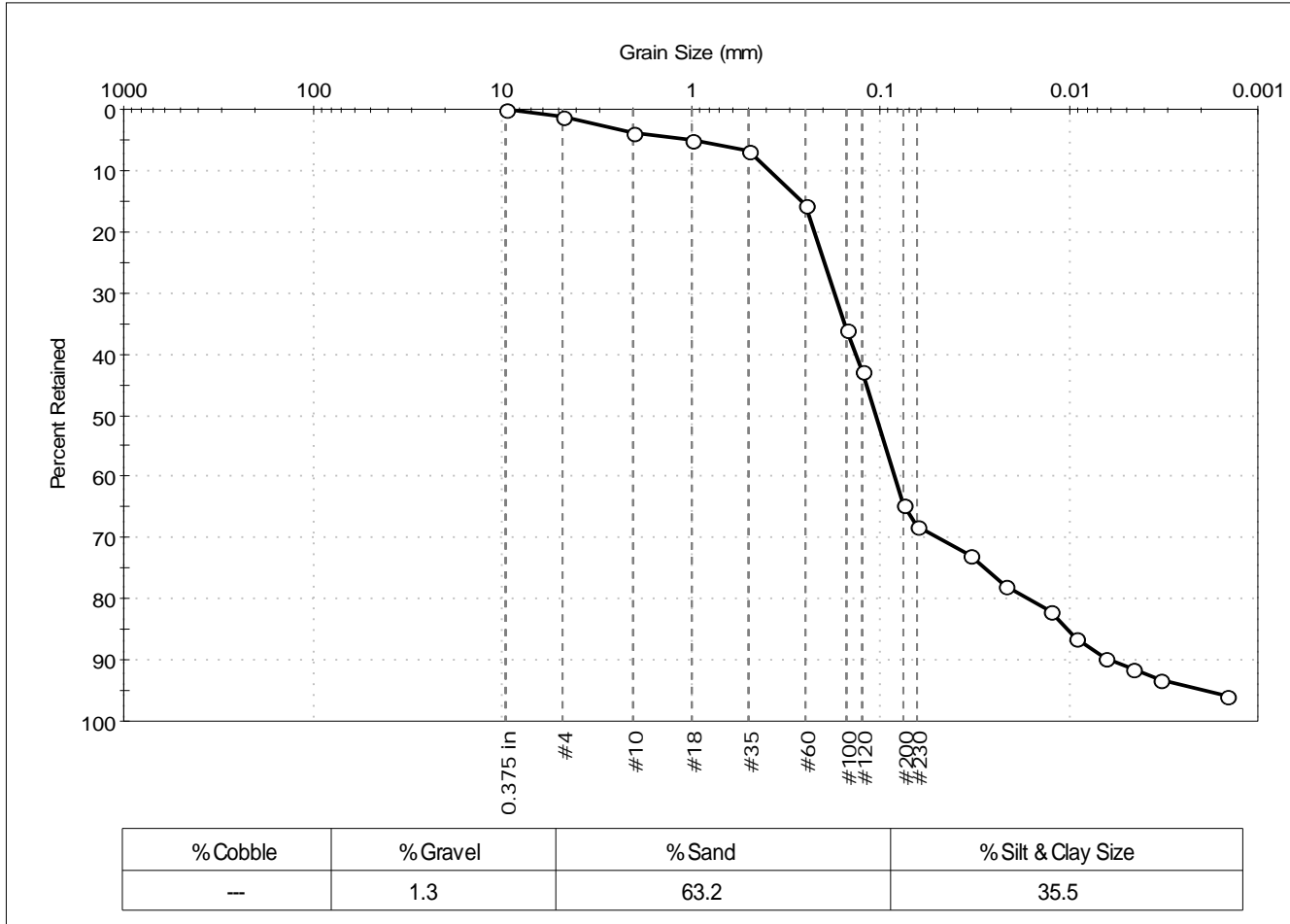
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	247-14LTM	Sample Type:	bag
Sample ID:	NBH14-0180	Test Date:	11/18/14
Depth:	---	Test Id:	310173
Test Comment:	---		
Sample Description:	Moist, verdark grayish brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	4		
#18	1.00	5		
#35	0.50	7		
#60	0.25	16		
#100	0.15	36		
#120	0.12	43		
#200	0.075	65		
#230	0.063	68		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	73		
---	0.0217	78		
---	0.0126	82		
---	0.0091	86		
---	0.0065	90		
---	0.0047	91		
---	0.0033	93		
---	0.0015	96		

Coefficients	
D ₈₅ = 0.2617 mm	D ₃₀ = 0.0492 mm
D ₆₀ = 0.1349 mm	D ₁₅ = 0.0102 mm
D ₅₀ = 0.1057 mm	D ₁₀ = 0.0062 mm
C _u = 21.758	C _c = 2.894

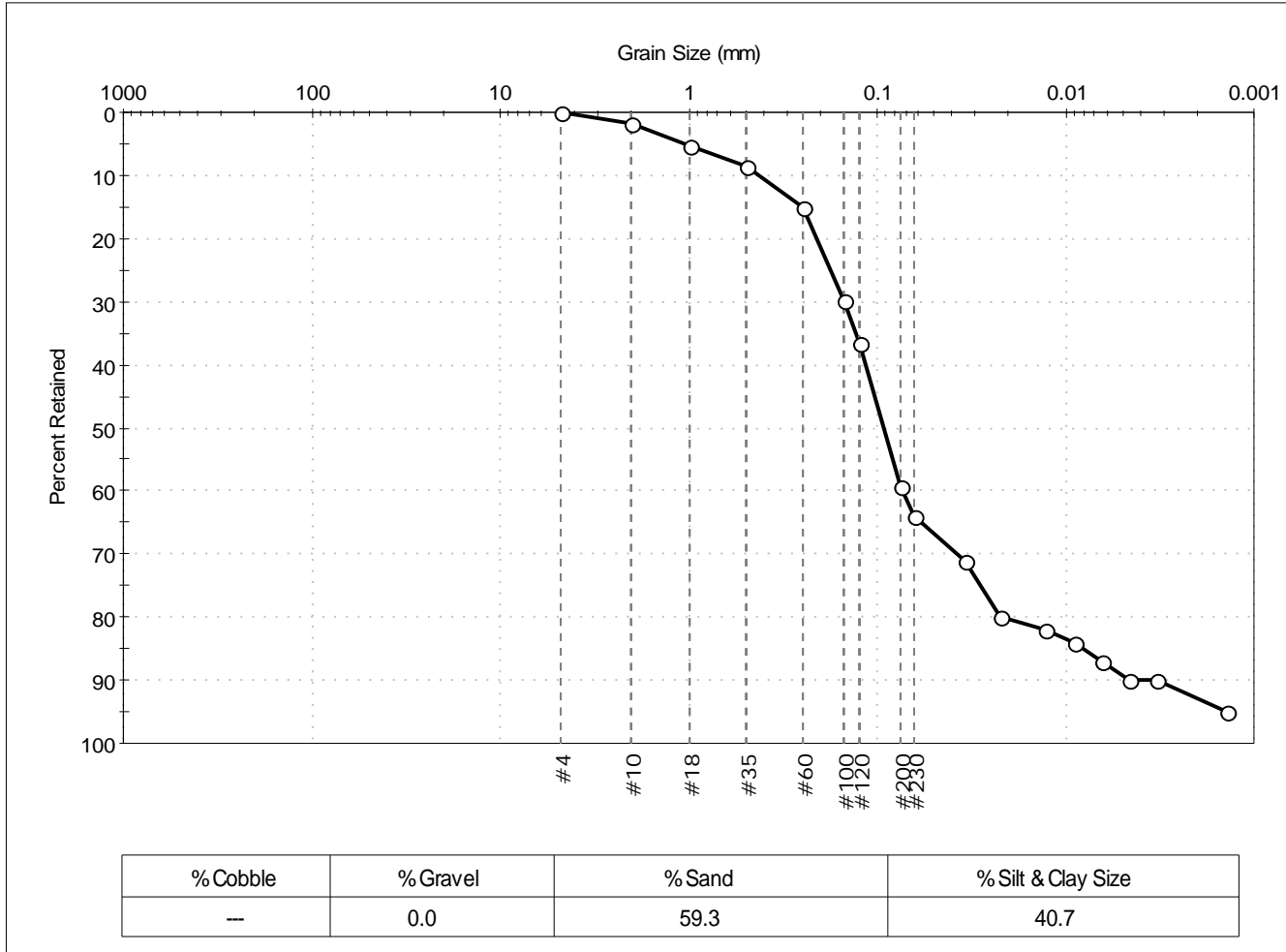
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 242-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0181	Test Date: 11/06/14	Test Id: 310174	
Depth: ---	Test Comment: ---	Sample Description: MOIST, very dark grayish brown silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	5		
#35	0.50	8		
#60	0.25	15		
#100	0.15	30		
#120	0.12	36		
#200	0.075	59		
#230	0.063	64		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0339	71		
---	0.0220	80		
---	0.0128	82		
---	0.0091	84		
---	0.0065	87		
---	0.0046	90		
---	0.0033	90		
---	0.0014	95		

<u>Coefficients</u>	
D ₈₅ = 0.2498 mm	D ₃₀ = 0.0372 mm
D ₆₀ = 0.1155 mm	D ₁₅ = 0.0081 mm
D ₅₀ = 0.0924 mm	D ₁₀ = 0.0046 mm
C _u = 25.109	C _c = 2.605

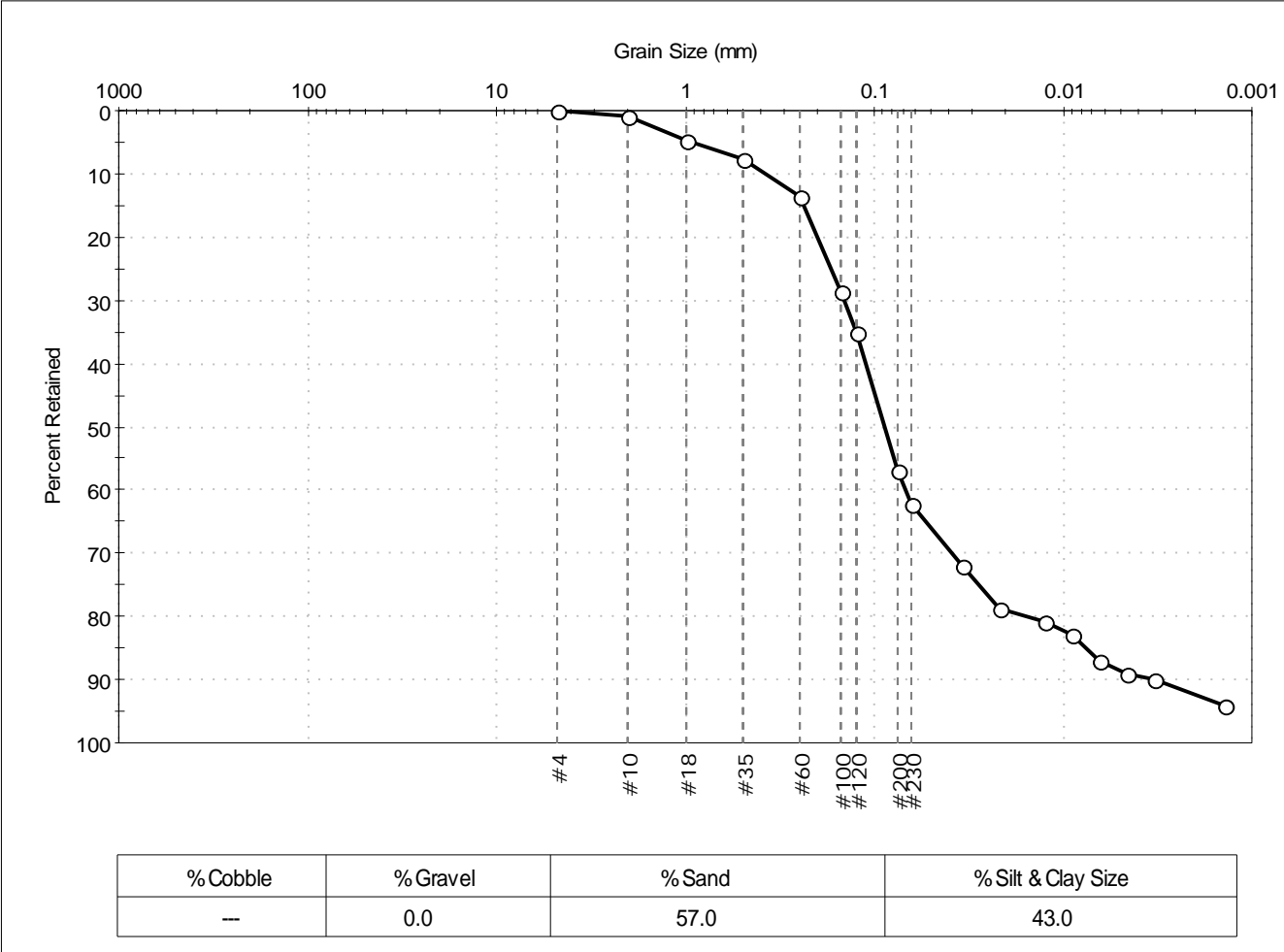
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 242-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0182	Test Date: 11/06/14	Test Id: 310175	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	5		
#35	0.50	8		
#60	0.25	14		
#100	0.15	29		
#120	0.12	35		
#200	0.075	57		
#230	0.063	62		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	72		
---	0.0220	79		
---	0.0127	81		
---	0.0091	83		
---	0.0065	87		
---	0.0046	89		
---	0.0033	90		
---	0.0014	94		

<u>Coefficients</u>	
D ₈₅ = 0.2384 mm	D ₃₀ = 0.0383 mm
D ₆₀ = 0.1114 mm	D ₁₅ = 0.0076 mm
D ₅₀ = 0.0883 mm	D ₁₀ = 0.0032 mm
C _u = 34.812	C _c = 4.115

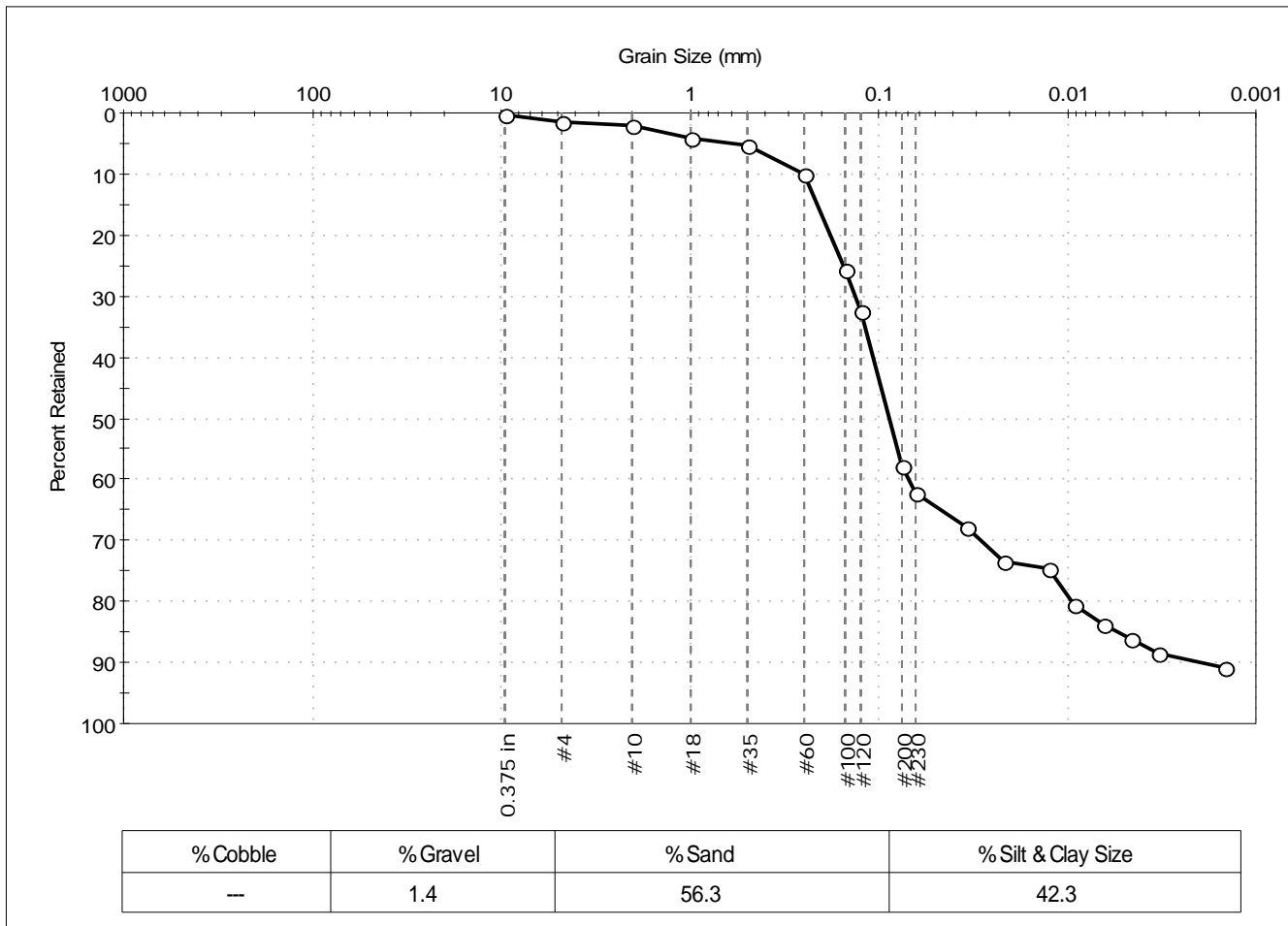
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	242-14LTM	Sample Type:	bag
Sample ID:	NBH14-0183	Test Date:	11/07/14
Depth:	---	Test Id:	310176
Test Comment:	---		
Sample Description:	Moist, very dark grayish brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	4		
#35	0.50	5		
#60	0.25	10		
#100	0.15	26		
#120	0.12	32		
#200	0.075	58		
#230	0.063	62		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	68		
---	0.0217	74		
---	0.0126	75		
---	0.0091	80		
---	0.0065	84		
---	0.0046	86		
---	0.0033	88		
---	0.0015	91		

Coefficients

D ₈₅ = 0.2122 mm	D ₃₀ = 0.0285 mm
D ₆₀ = 0.1074 mm	D ₁₅ = 0.0055 mm
D ₅₀ = 0.0877 mm	D ₁₀ = 0.0019 mm
C _u = 56.526	C _c = 3.980

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

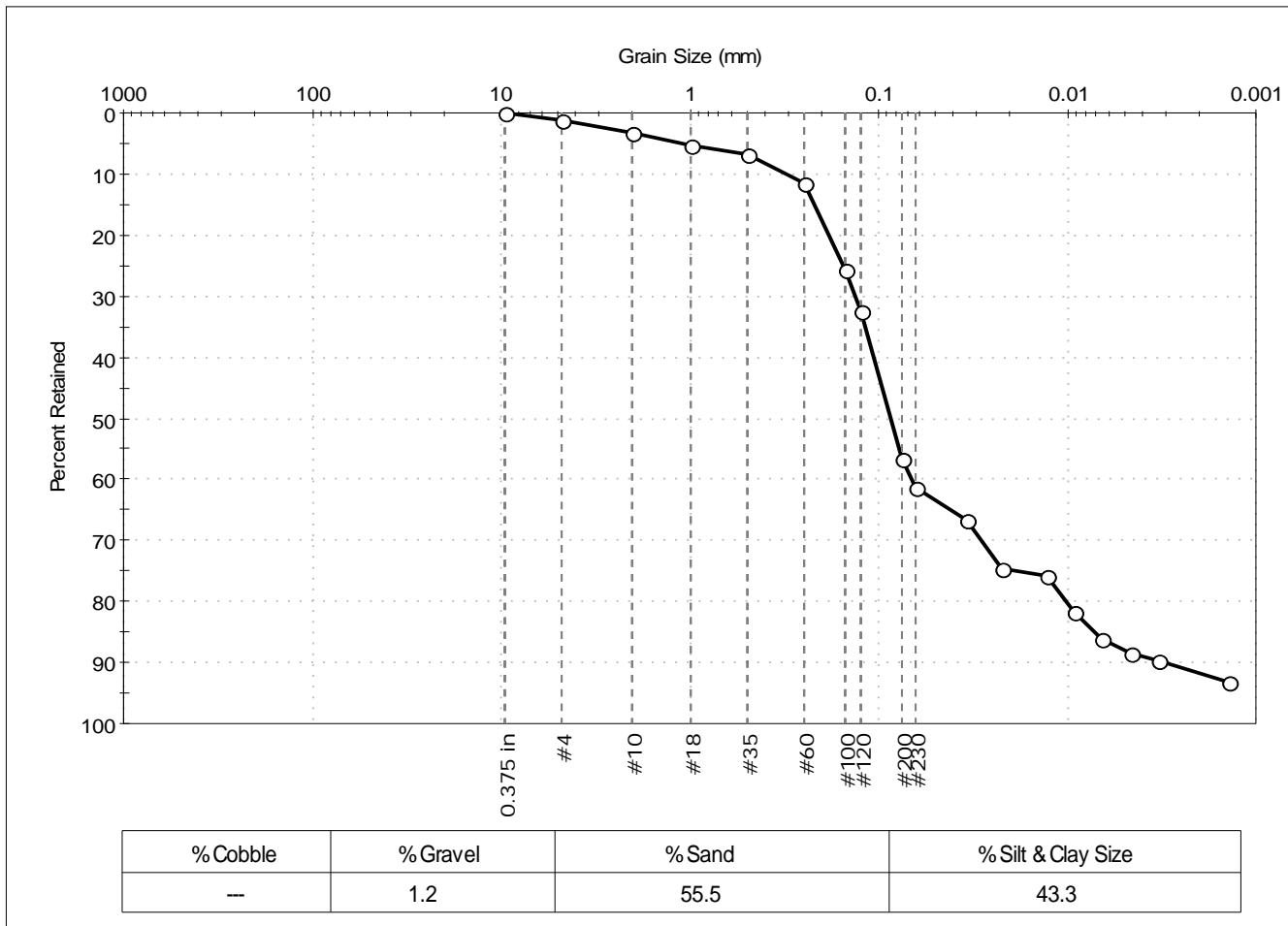
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 242-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0184
 Test Date: 11/06/14
 Checked By: jdt
 Depth: ---
 Test Id: 310177
 Test Comment: ---
 Sample Description: Moist, very dark grayish brown silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	5		
#35	0.50	7		
#60	0.25	12		
#100	0.15	26		
#120	0.12	32		
#200	0.075	57		
#230	0.063	61		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	67		
---	0.0220	75		
---	0.0127	76		
---	0.0092	82		
---	0.0065	86		
---	0.0046	89		
---	0.0033	90		
---	0.0014	93		

Coefficients

D ₈₅ = 0.2209 mm	D ₃₀ = 0.0285 mm
D ₆₀ = 0.1065 mm	D ₁₅ = 0.0072 mm
D ₅₀ = 0.0863 mm	D ₁₀ = 0.0030 mm
C _u = 35.500	C _c = 2.542

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

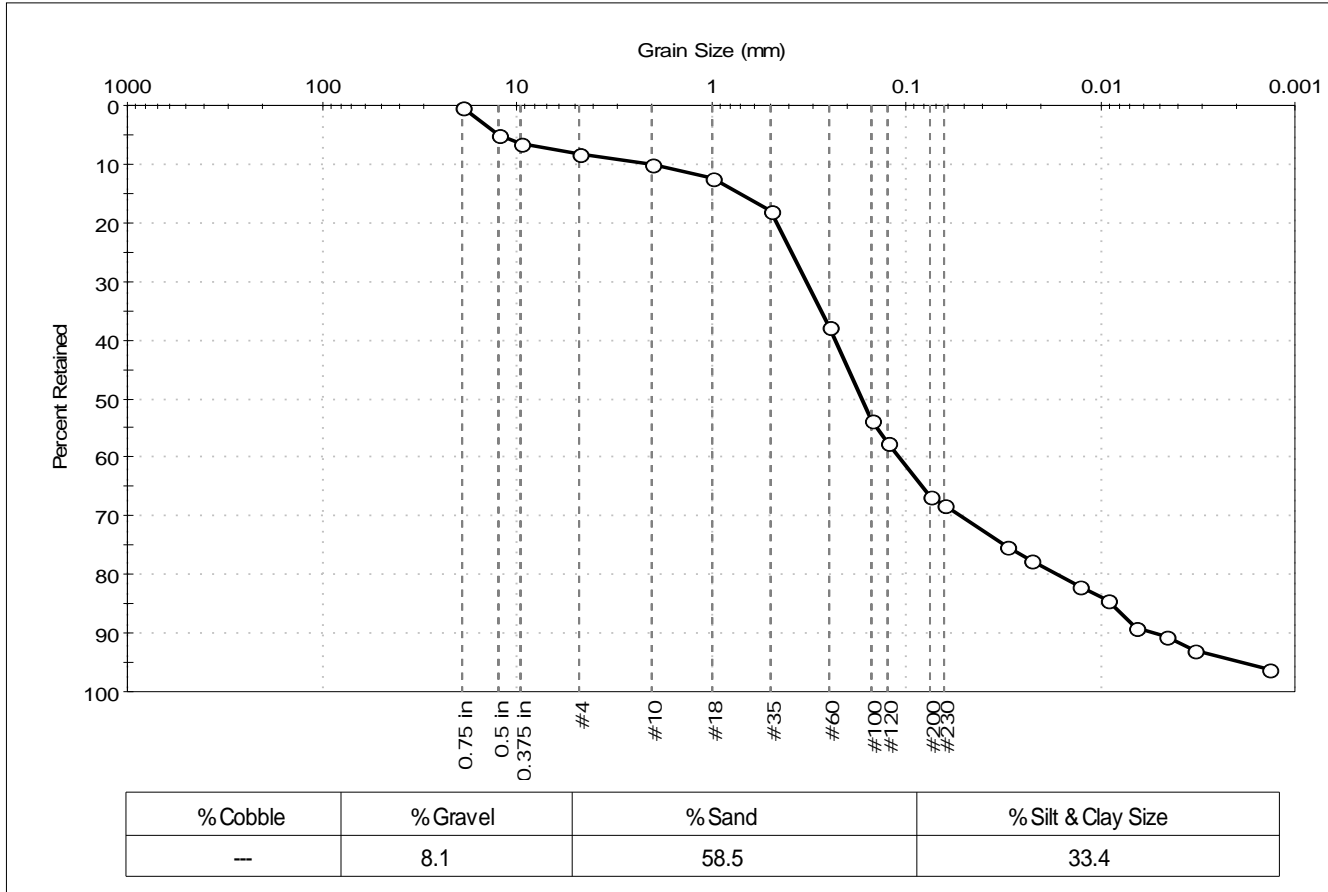
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 241-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0185	Test Date: 11/05/14	Checked By: jdt	
Depth: ---	Test Id: 310179		
Test Comment: ---			
Sample Description: Moist, very dark grayish brown silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	5		
0.375 in	9.50	6		
#4	4.75	8		
#10	2.00	10		
#18	1.00	12		
#35	0.50	18		
#60	0.25	38		
#100	0.15	54		
#120	0.12	57		
#200	0.075	67		
#230	0.063	68		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0306	75		
---	0.0226	77		
---	0.0129	82		
---	0.0092	84		
---	0.0066	89		
---	0.0046	91		
---	0.0033	93		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.7331 mm	D ₃₀ = 0.0520 mm
D ₆₀ = 0.2328 mm	D ₁₅ = 0.0089 mm
D ₅₀ = 0.1689 mm	D ₁₀ = 0.0054 mm
C _u = 43.111	C _c = 2.151

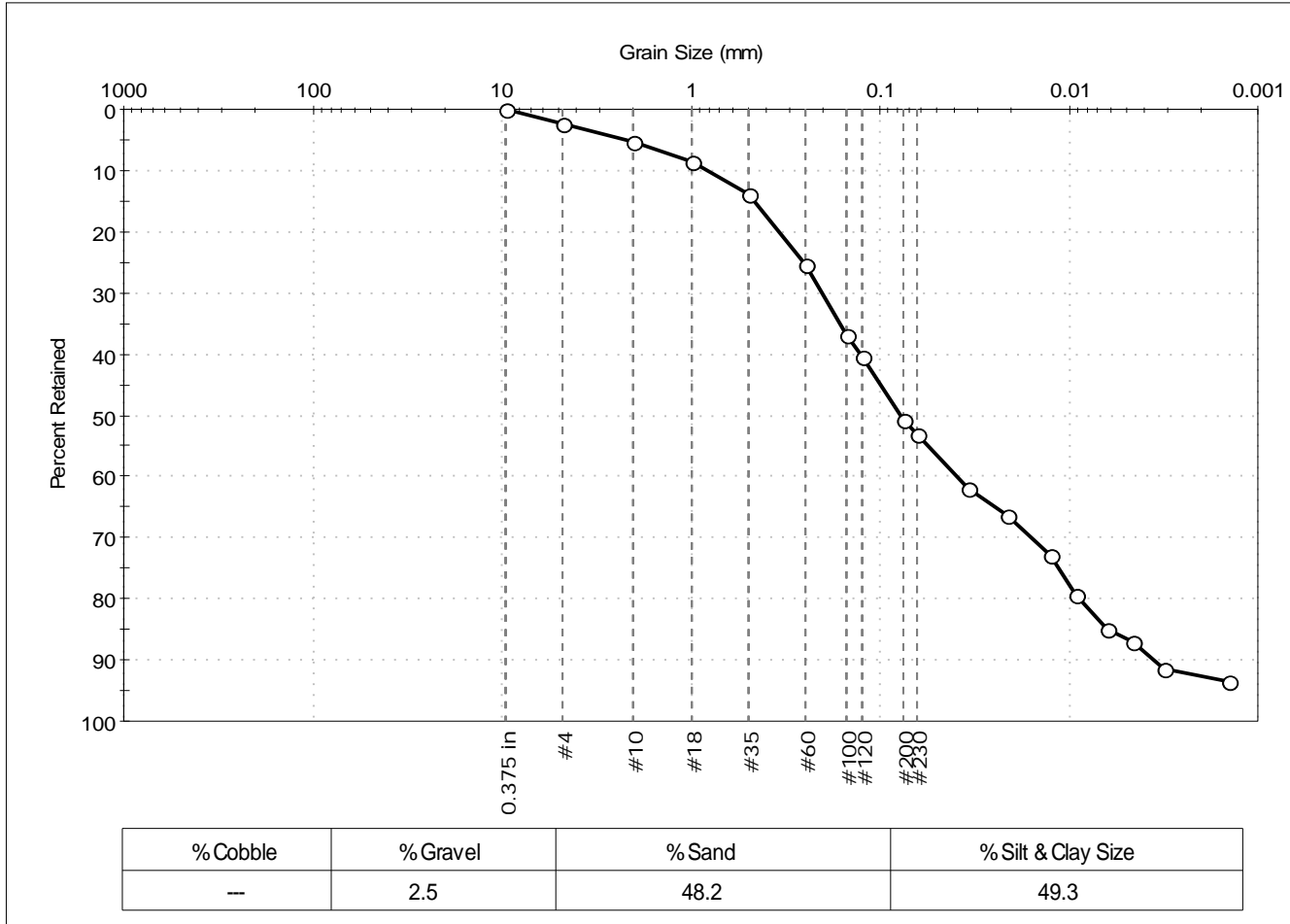
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	241-14LTM	Sample Type:	bag
Sample ID:	NBH14-0186	Test Date:	11/05/14
Depth:	---	Test Id:	310180
Test Comment:	---		
Sample Description:	Moist, very dark grayish brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	5		
#18	1.00	9		
#35	0.50	14		
#60	0.25	25		
#100	0.15	37		
#120	0.12	40		
#200	0.075	51		
#230	0.063	53		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	62		
---	0.0214	66		
---	0.0126	73		
---	0.0091	79		
---	0.0063	85		
---	0.0046	87		
---	0.0032	91		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.4657 mm	D ₃₀ = 0.0160 mm
D ₆₀ = 0.1274 mm	D ₁₅ = 0.0062 mm
D ₅₀ = 0.0777 mm	D ₁₀ = 0.0036 mm
C _u = 35.389	C _c = 0.558

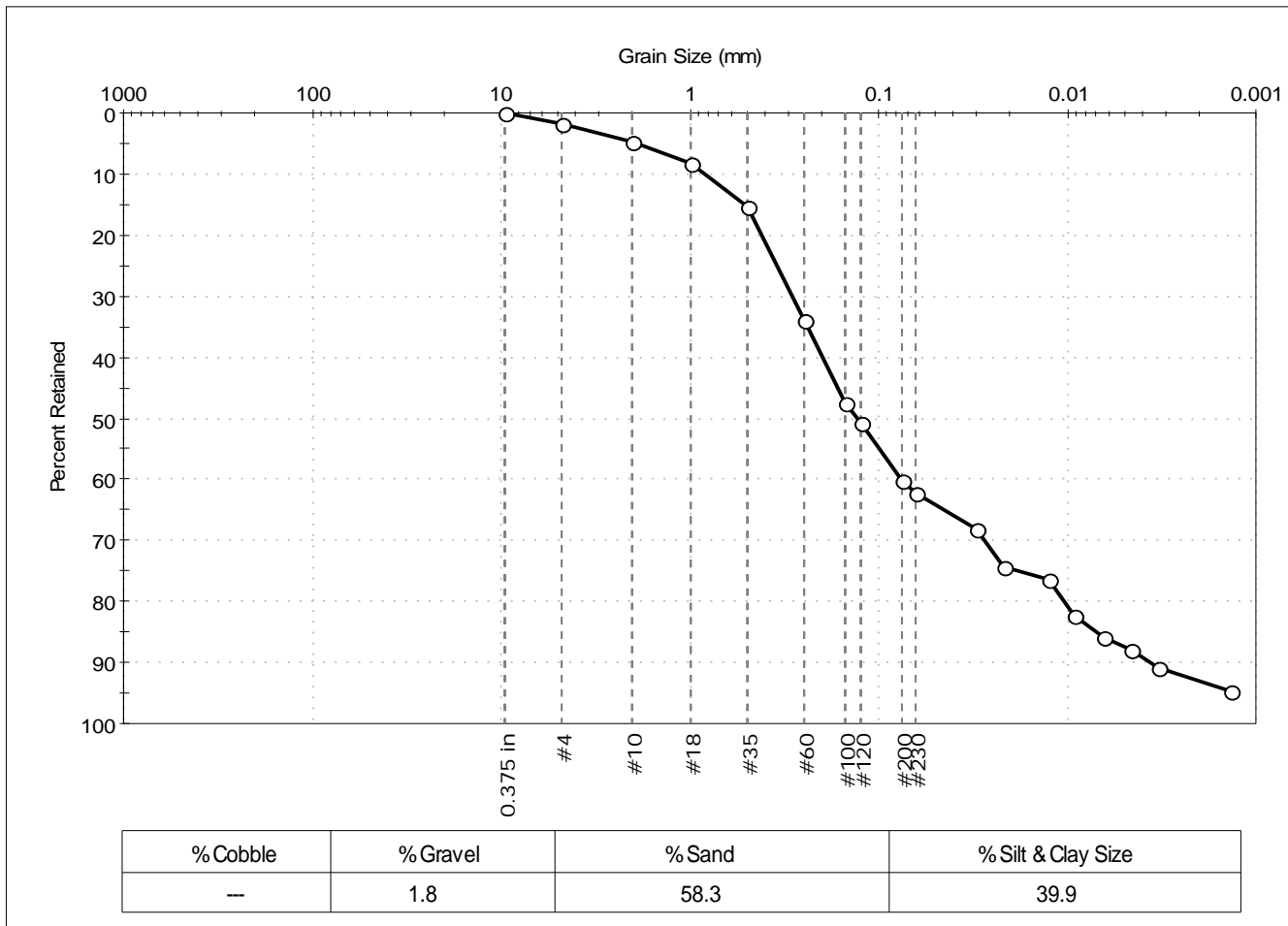
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 241-14LTM	Sample Type: bag
Sample ID: NBH14-0187	Test Date: 11/05/14
Depth: ---	Test Id: 310181
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dak grayish brown silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	5		
#18	1.00	8		
#35	0.50	15		
#60	0.25	34		
#100	0.15	47		
#120	0.12	51		
#200	0.075	60		
#230	0.063	62		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0301	68		
---	0.0219	74		
---	0.0127	76		
---	0.0091	82		
---	0.0064	86		
---	0.0046	88		
---	0.0033	91		
---	0.0014	95		

<u>Coefficients</u>	
D ₈₅ = 0.5222 mm	D ₃₀ = 0.0274 mm
D ₆₀ = 0.1991 mm	D ₁₅ = 0.0070 mm
D ₅₀ = 0.1304 mm	D ₁₀ = 0.0036 mm
C _u = 55.306	C _c = 1.047

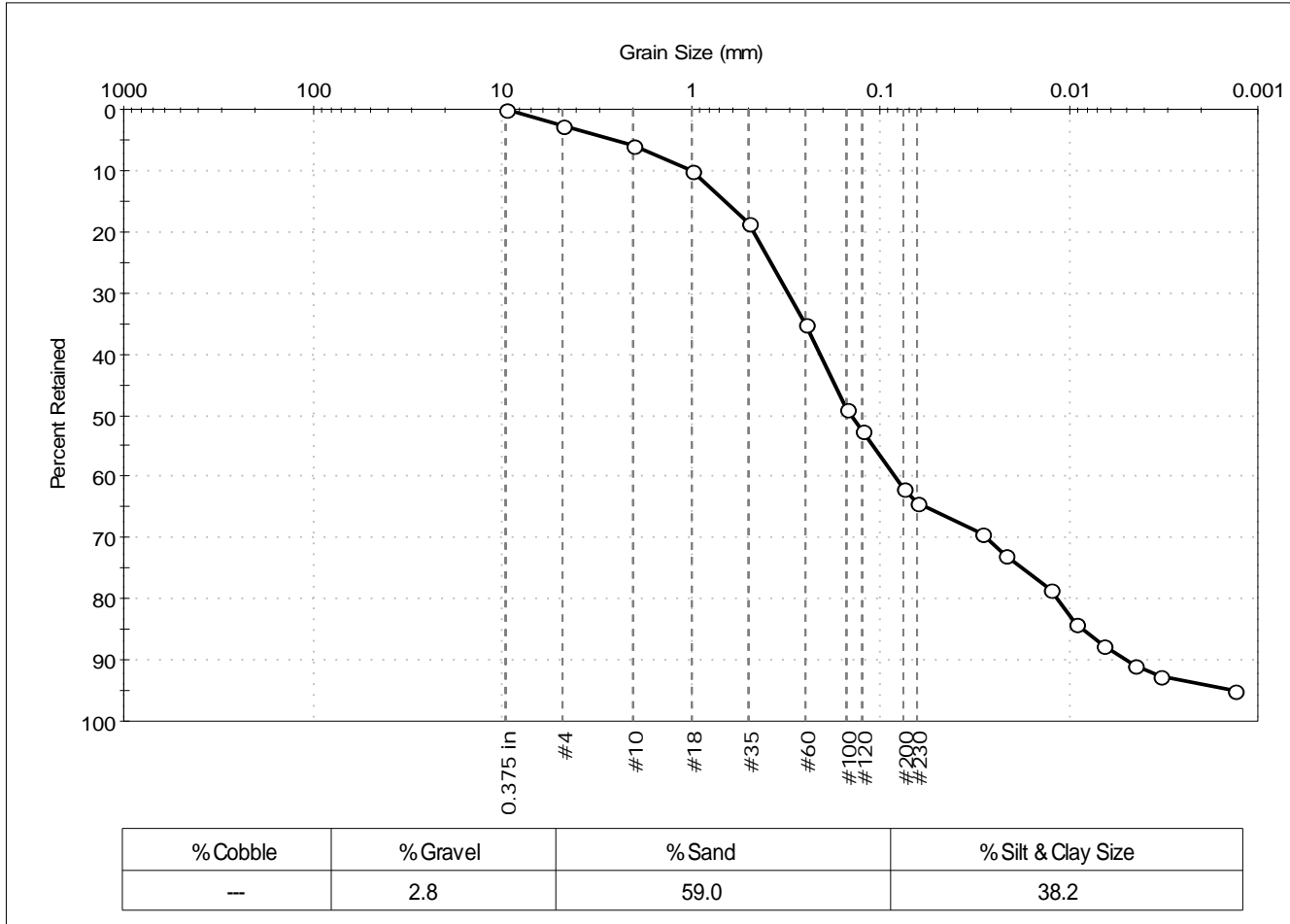
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 241-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0188	Test Date: 11/05/14	Checked By: jdt	
Depth: ---	Test Id: 310182		
Test Comment: ---			
Sample Description: Moist, very dark grayish brown silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	6		
#18	1.00	10		
#35	0.50	19		
#60	0.25	35		
#100	0.15	49		
#120	0.12	52		
#200	0.075	62		
#230	0.063	64		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0288	69		
---	0.0217	73		
---	0.0127	78		
---	0.0092	84		
---	0.0065	88		
---	0.0045	91		
---	0.0033	93		
---	0.0013	95		

<u>Coefficients</u>	
D ₈₅ = 0.6740 mm	D ₃₀ = 0.0271 mm
D ₆₀ = 0.2092 mm	D ₁₅ = 0.0084 mm
D ₅₀ = 0.1416 mm	D ₁₀ = 0.0050 mm
C _u = 41.840	C _c = 0.702

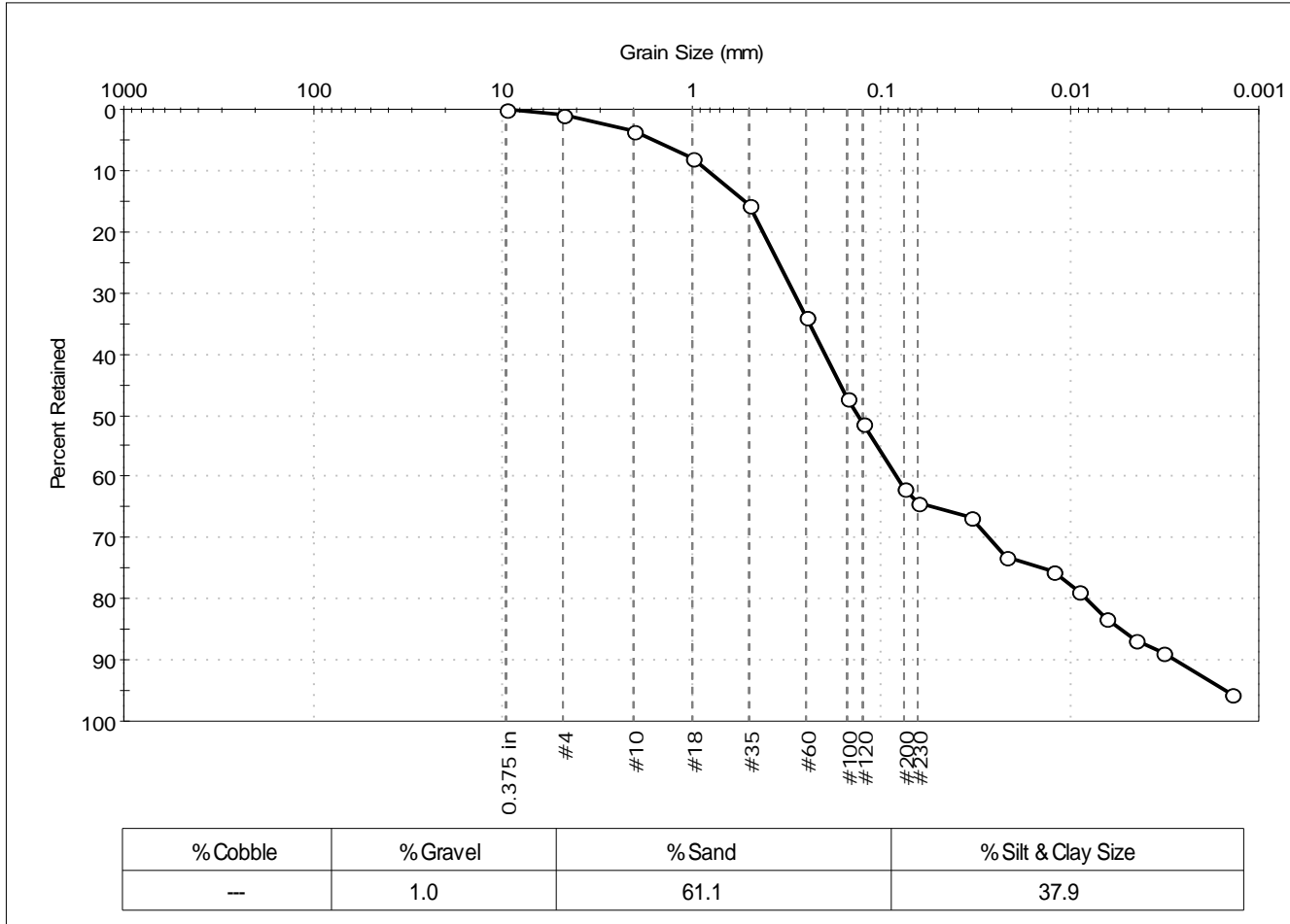
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 241-14LTM	Sample Type: bag
Sample ID: NBH14-0188DUP	Test Date: 11/14/14
Depth: ---	Test Id: 313930
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dark olive gray silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	8		
#35	0.50	16		
#60	0.25	34		
#100	0.15	47		
#120	0.12	51		
#200	0.075	62		
#230	0.063	64		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	67		
---	0.0216	73		
---	0.0124	75		
---	0.0090	79		
---	0.0064	83		
---	0.0045	87		
---	0.0032	89		
---	0.0014	96		

Coefficients

D ₈₅ = 0.5335 mm	D ₃₀ = 0.0268 mm
D ₆₀ = 0.1989 mm	D ₁₅ = 0.0054 mm
D ₅₀ = 0.1326 mm	D ₁₀ = 0.0028 mm
C _u = 71.036	C _c = 1.290

Classification

ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

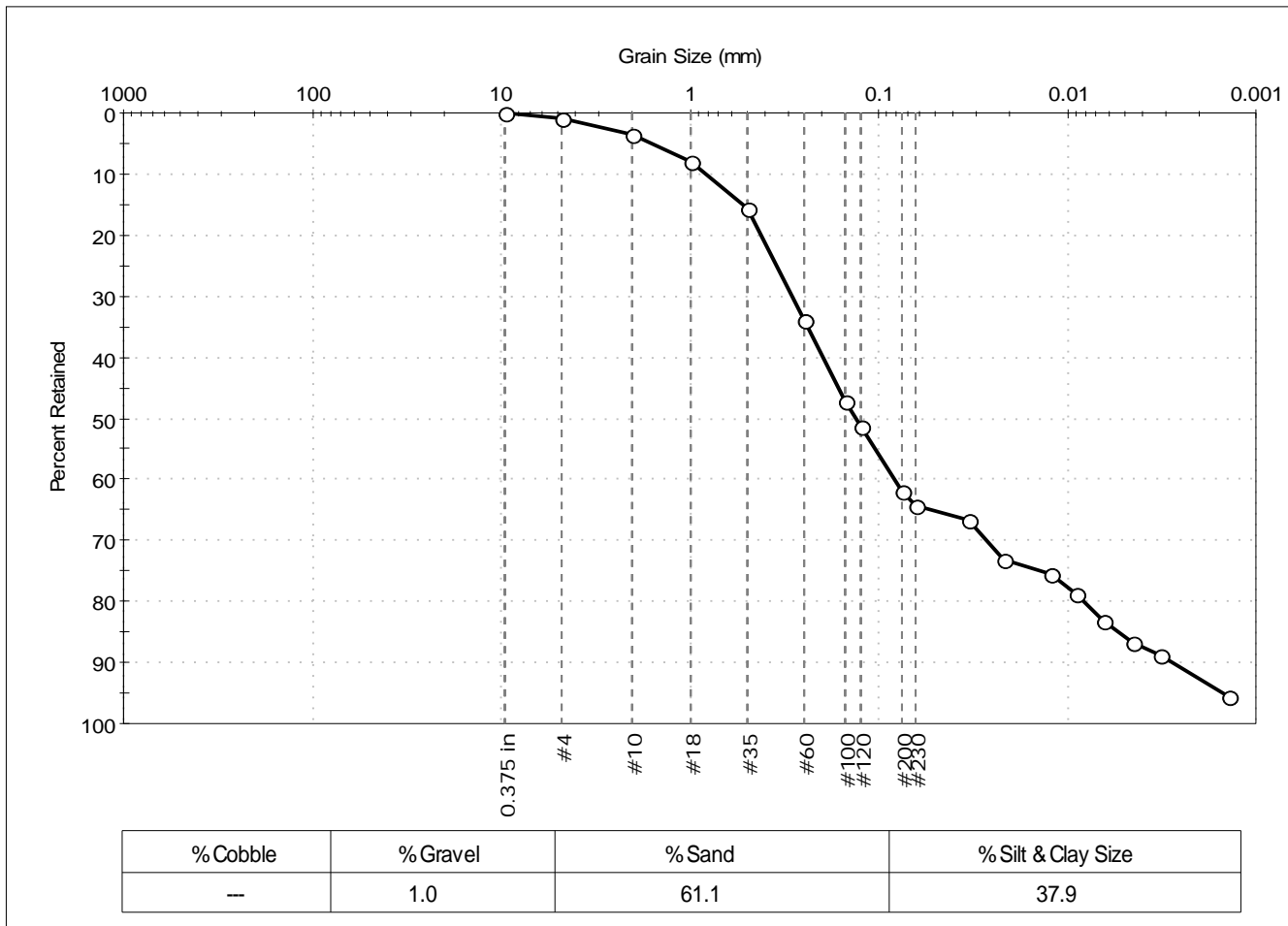
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	241-14LTM	Sample Type:	bag
Sample ID:	NBH14-0188DUP	Test Date:	11/14/14
Depth:	---	Test Id:	313930
Test Comment:	---		
Sample Description:	Moist, very dark olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	8		
#35	0.50	16		
#60	0.25	34		
#100	0.15	47		
#120	0.12	51		
#200	0.075	62		
#230	0.063	64		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	67		
---	0.0216	73		
---	0.0124	75		
---	0.0090	79		
---	0.0064	83		
---	0.0045	87		
---	0.0032	89		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.5335 mm	D ₃₀ = 0.0268 mm
D ₆₀ = 0.1989 mm	D ₁₅ = 0.0054 mm
D ₅₀ = 0.1326 mm	D ₁₀ = 0.0028 mm
C _u = 71.036	C _c = 1.290

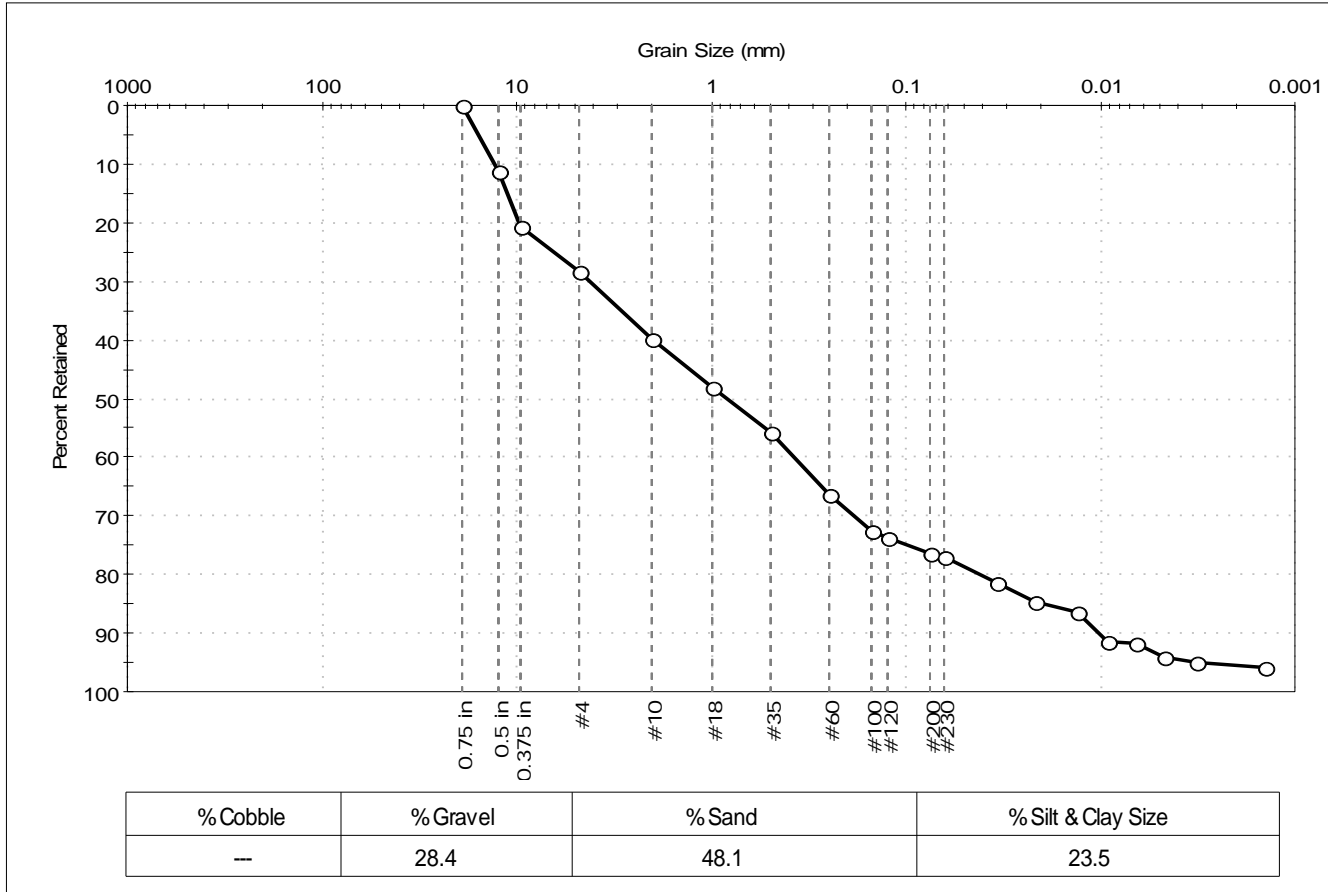
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 237-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0190	Test Date: 11/05/14	Checked By: jdt	
Depth: ---	Test Id: 310184		
Test Comment: ---			
Sample Description: Moist, very dark grayish brown silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	11		
0.375 in	9.50	21		
#4	4.75	28		
#10	2.00	40		
#18	1.00	48		
#35	0.50	56		
#60	0.25	66		
#100	0.15	72		
#120	0.12	74		
#200	0.075	77		
#230	0.063	77		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	81		
---	0.0217	85		
---	0.0130	86		
---	0.0093	91		
---	0.0065	92		
---	0.0047	94		
---	0.0032	95		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 11.2004 mm	D ₃₀ = 0.1838 mm
D ₆₀ = 1.9513 mm	D ₁₅ = 0.0200 mm
D ₅₀ = 0.8438 mm	D ₁₀ = 0.0102 mm
C _u = 191.304	C _c = 1.697

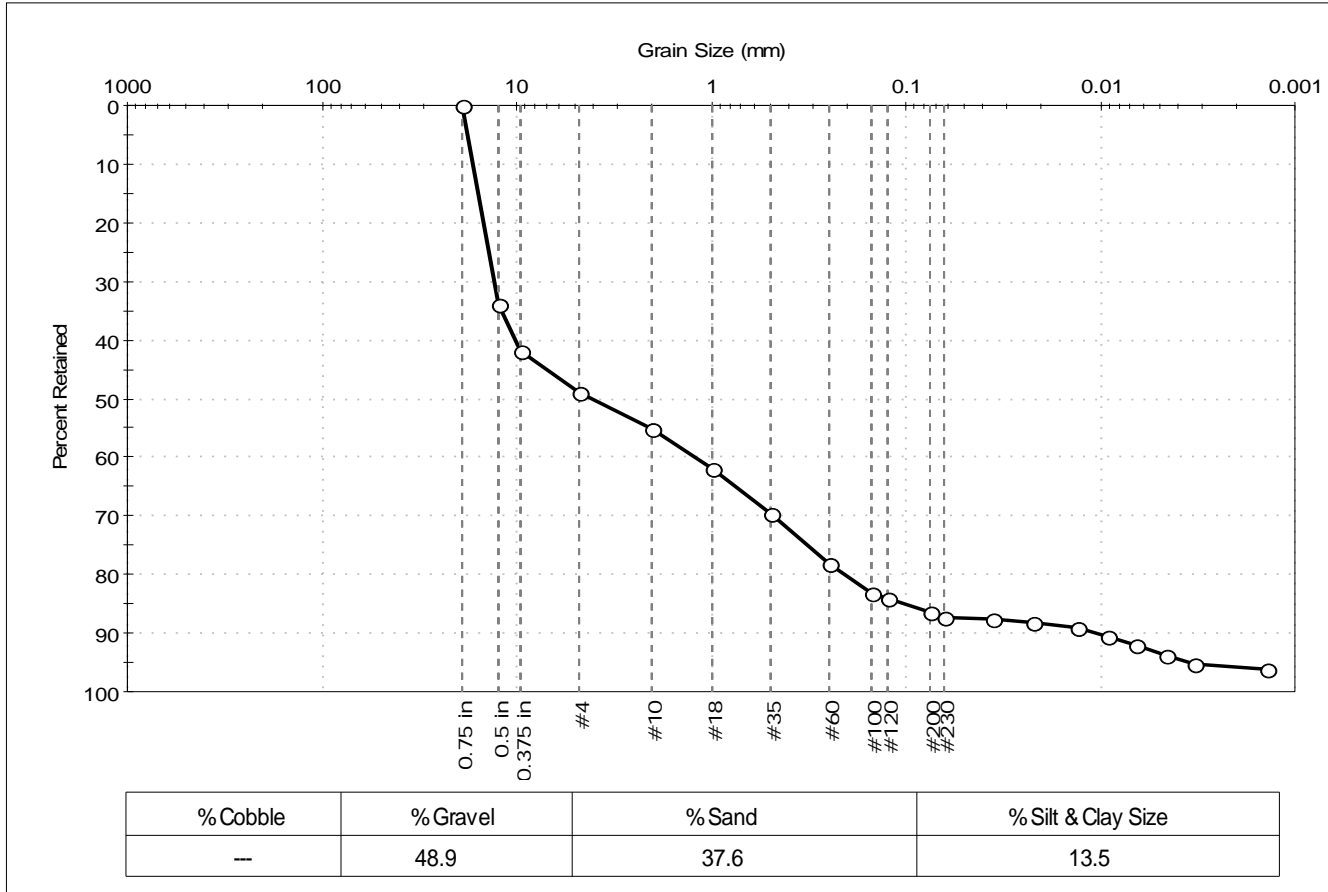
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 237-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0191	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310185		
Test Comment: ---			
Sample Description: Moist, very dark gray silty gravel with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	34		
0.375 in	9.50	42		
#4	4.75	49		
#10	2.00	55		
#18	1.00	62		
#35	0.50	70		
#60	0.25	78		
#100	0.15	83		
#120	0.12	84		
#200	0.075	86		
#230	0.063	87		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0354	87		
---	0.0225	88		
---	0.0130	89		
---	0.0092	91		
---	0.0066	92		
---	0.0046	94		
---	0.0033	95		
---	0.0014	96		

Coefficients	
D ₈₅ = 15.7926 mm	D ₃₀ = 0.4890 mm
D ₆₀ = 10.1486 mm	D ₁₅ = 0.1031 mm
D ₅₀ = 4.0936 mm	D ₁₀ = 0.0105 mm
C _u = 966.533	C _c = 2.244

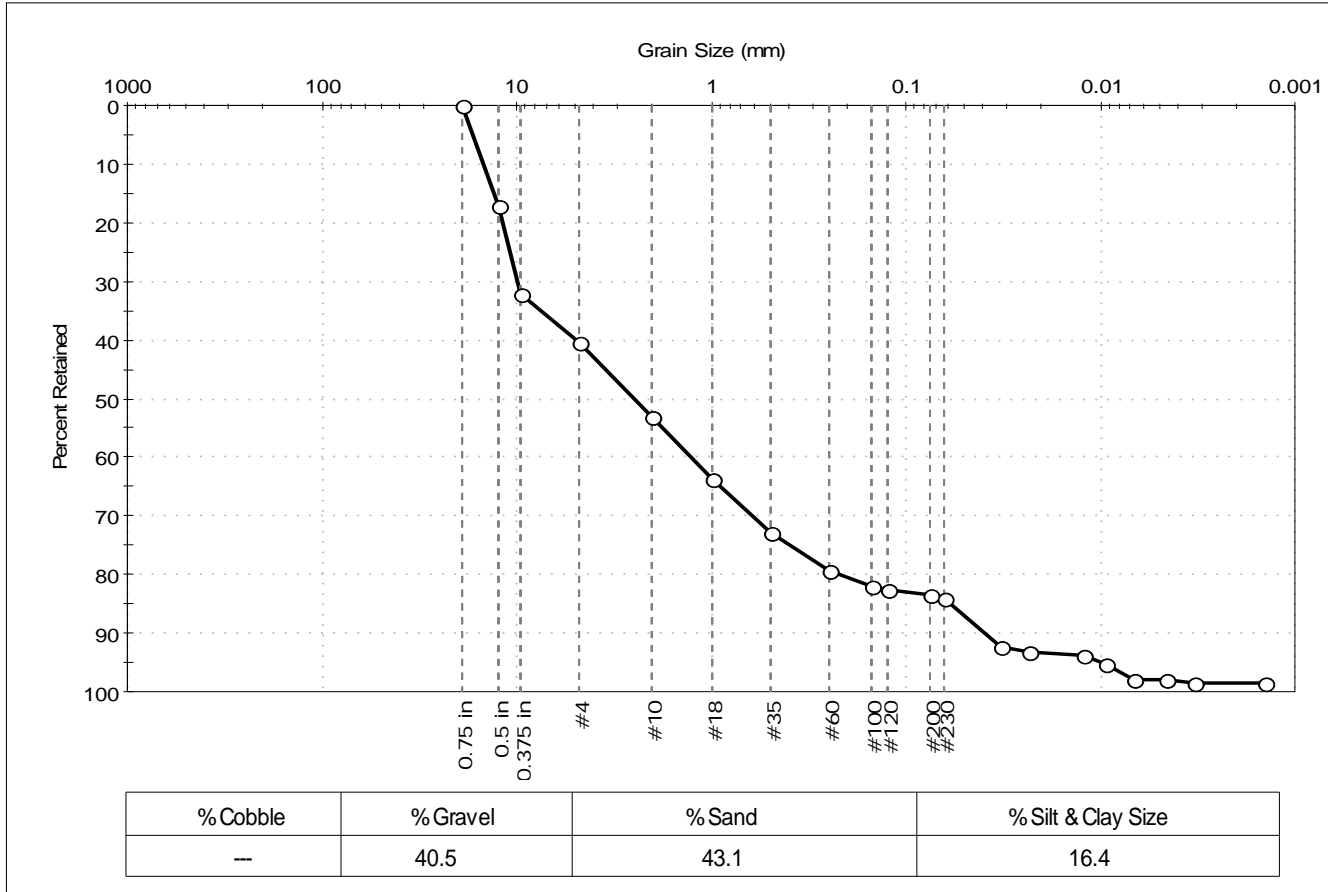
Classification	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-a (0))

Sample/Test Description
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 237-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0192	Test Date: 11/05/14	Checked By: jdt	
Depth: ---	Test Id: 310186		
Test Comment: ---			
Sample Description: Moist, very dark grayish brown silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	17		
0.375 in	9.50	32		
#4	4.75	40		
#10	2.00	53		
#18	1.00	64		
#35	0.50	73		
#60	0.25	79		
#100	0.15	82		
#120	0.12	83		
#200	0.075	84		
#230	0.063	84		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	92		
---	0.0233	93		
---	0.0121	94		
---	0.0094	95		
---	0.0067	98		
---	0.0047	98		
---	0.0033	99		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 13.1312 mm	D ₃₀ = 0.6259 mm
D ₆₀ = 4.9456 mm	D ₁₅ = 0.0579 mm
D ₅₀ = 2.4704 mm	D ₁₀ = 0.0393 mm
C _u = 125.842	C _c = 2.016

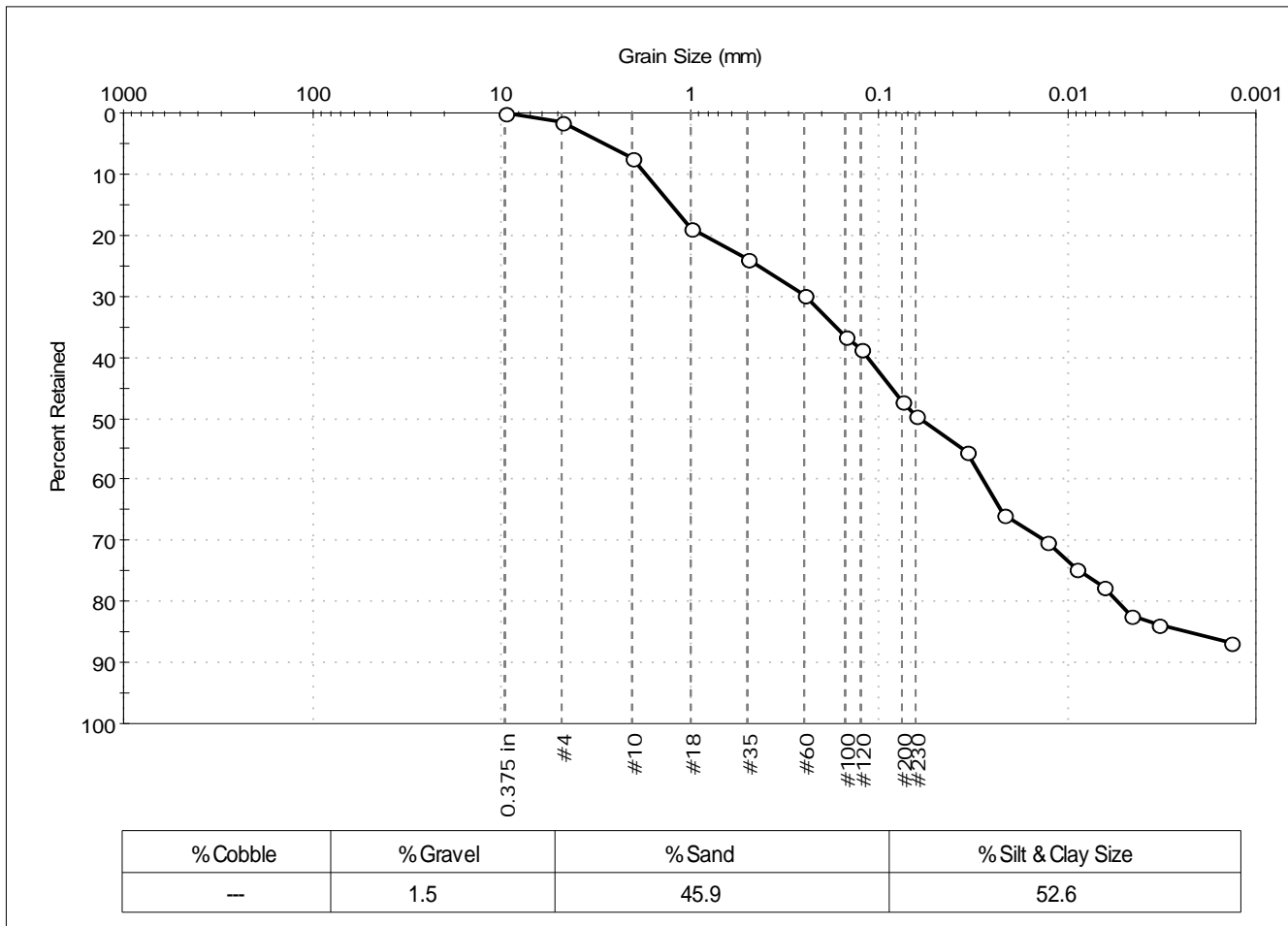
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ROUNDED	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 236-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0193	Test Date: 11/06/14	Checked By: jdt	
Depth: ---	Test Id: 310187		
Test Comment: ---			
Sample Description: Moist, very dark grayish brown sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	7		
#18	1.00	19		
#35	0.50	24		
#60	0.25	30		
#100	0.15	36		
#120	0.12	39		
#200	0.075	47		
#230	0.063	49		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	55		
---	0.0218	66		
---	0.0127	70		
---	0.0091	75		
---	0.0064	78		
---	0.0046	82		
---	0.0033	84		
---	0.0014	87		

<u>Coefficients</u>	
D ₈₅ = 1.2687 mm	D ₃₀ = 0.0131 mm
D ₆₀ = 0.1162 mm	D ₁₅ = 0.0022 mm
D ₅₀ = 0.0594 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

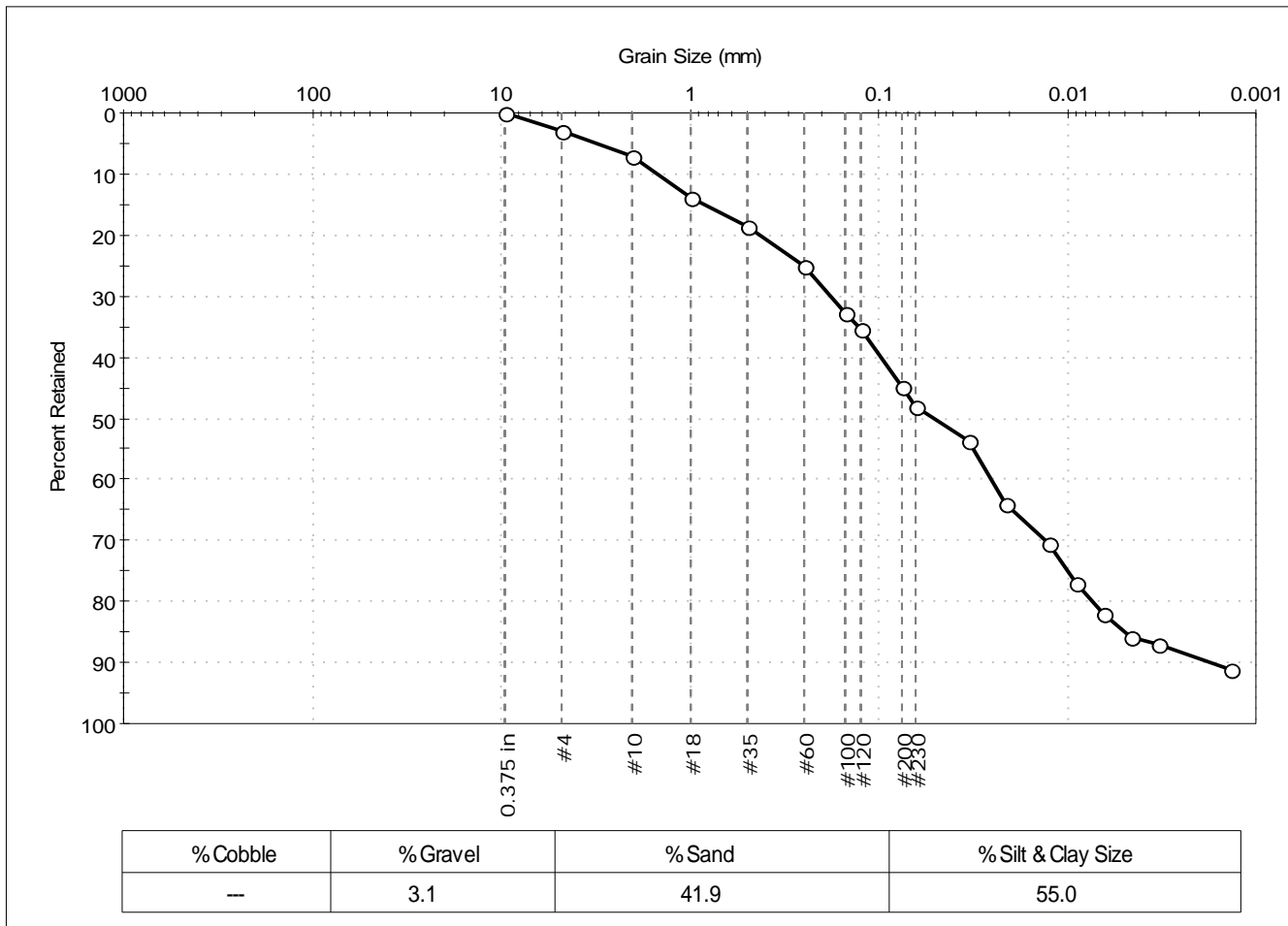
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 236-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0194
 Test Date: 11/06/14
 Checked By: jdt
 Depth: ---
 Test Id: 310188
 Test Comment: ---
 Sample Description: Moist, very dark grayish brown sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	7		
#18	1.00	14		
#35	0.50	19		
#60	0.25	25		
#100	0.15	33		
#120	0.12	35		
#200	0.075	45		
#230	0.063	48		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	54		
---	0.0214	64		
---	0.0126	70		
---	0.0090	77		
---	0.0065	82		
---	0.0046	86		
---	0.0033	87		
---	0.0014	91		

Coefficients

D ₈₅ = 0.8371 mm	D ₃₀ = 0.0131 mm
D ₆₀ = 0.0976 mm	D ₁₅ = 0.0050 mm
D ₅₀ = 0.0505 mm	D ₁₀ = 0.0017 mm
C _u = 57.412	C _c = 1.034

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**

Sand/Gravel Hardness : **HARD**

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

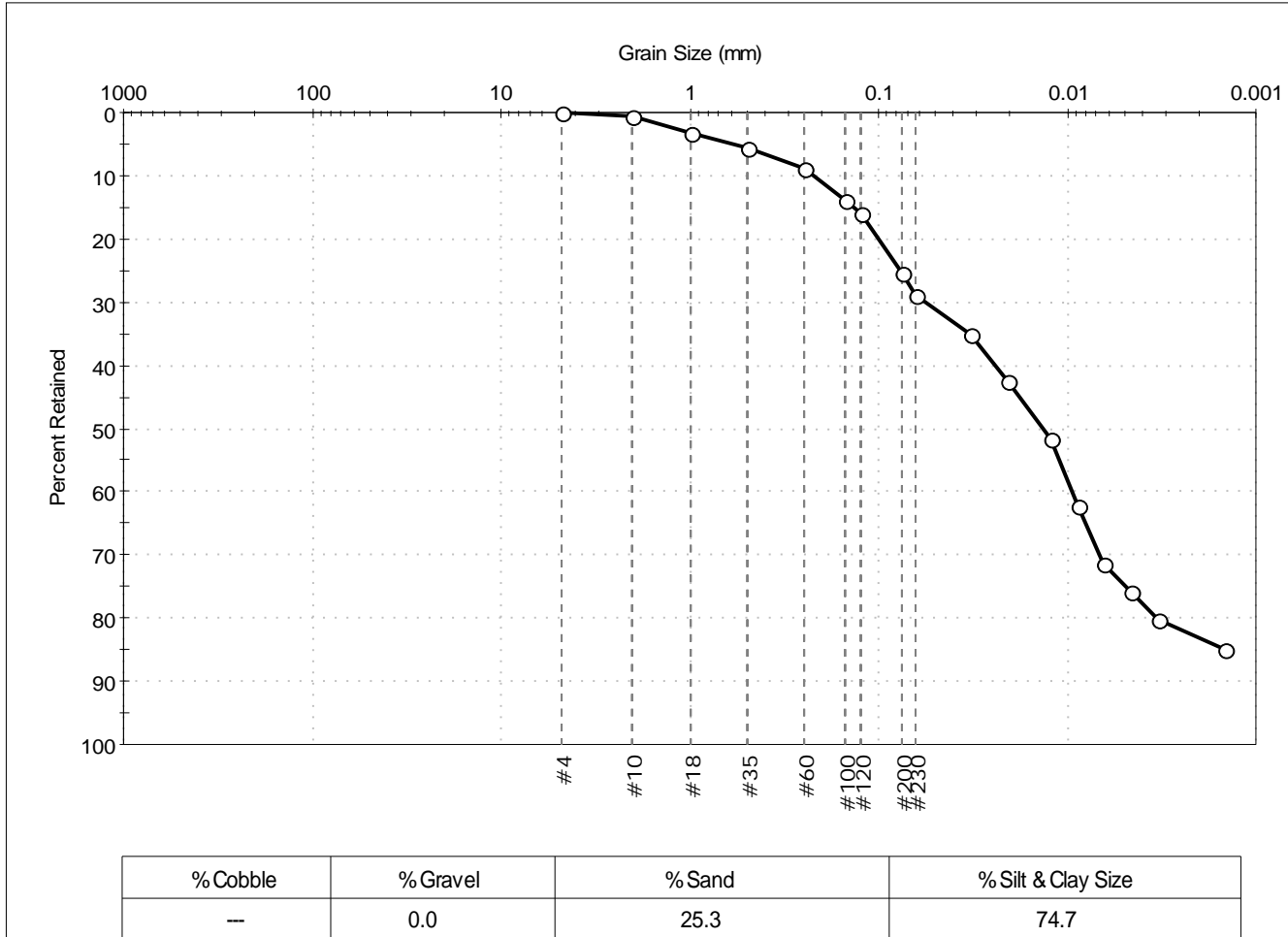
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	236-14LTM	Sample Type:	bag
Sample ID:	NBH14-0195	Test Date:	11/06/14
Depth:	---	Test Id:	310189
Test Comment:	---		
Sample Description:	Moist, very dark grayish brown silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	6		
#60	0.25	9		
#100	0.15	14		
#120	0.12	16		
#200	0.075	25		
#230	0.063	29		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0324	35		
---	0.0208	43		
---	0.0122	52		
---	0.0089	62		
---	0.0064	71		
---	0.0046	76		
---	0.0033	80		
---	0.0015	85		

<u>Coefficients</u>	
D ₈₅ = 0.1343 mm	D ₃₀ = 0.0067 mm
D ₆₀ = 0.0241 mm	D ₁₅ = N/A
D ₅₀ = 0.0135 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

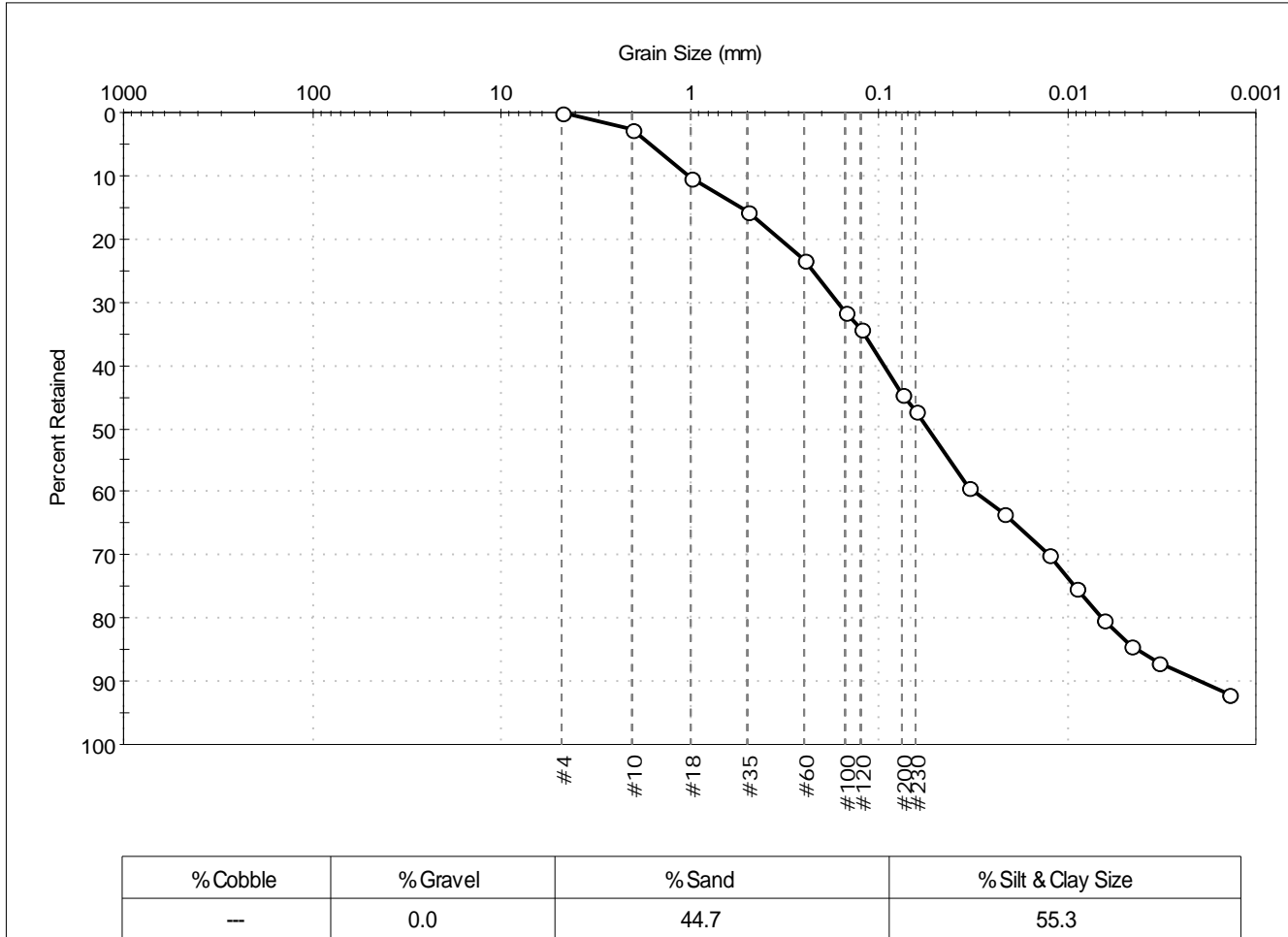
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 236-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0196	Test Date: 11/05/14	Checked By: jdt	
Depth: ---	Test Id: 310190		
Test Comment: ---			
Sample Description: Moist, very dark grayish brown sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	3		
#18	1.00	10		
#35	0.50	16		
#60	0.25	23		
#100	0.15	31		
#120	0.12	34		
#200	0.075	45		
#230	0.063	47		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0337	59		
---	0.0215	63		
---	0.0126	70		
---	0.0090	75		
---	0.0064	80		
---	0.0046	84		
---	0.0033	87		
---	0.0014	92		

<u>Coefficients</u>	
D ₈₅ = 0.5359 mm	D ₃₀ = 0.0125 mm
D ₆₀ = 0.0944 mm	D ₁₅ = 0.0042 mm
D ₅₀ = 0.0546 mm	D ₁₀ = 0.0020 mm
C _u = 47.200	C _c = 0.828

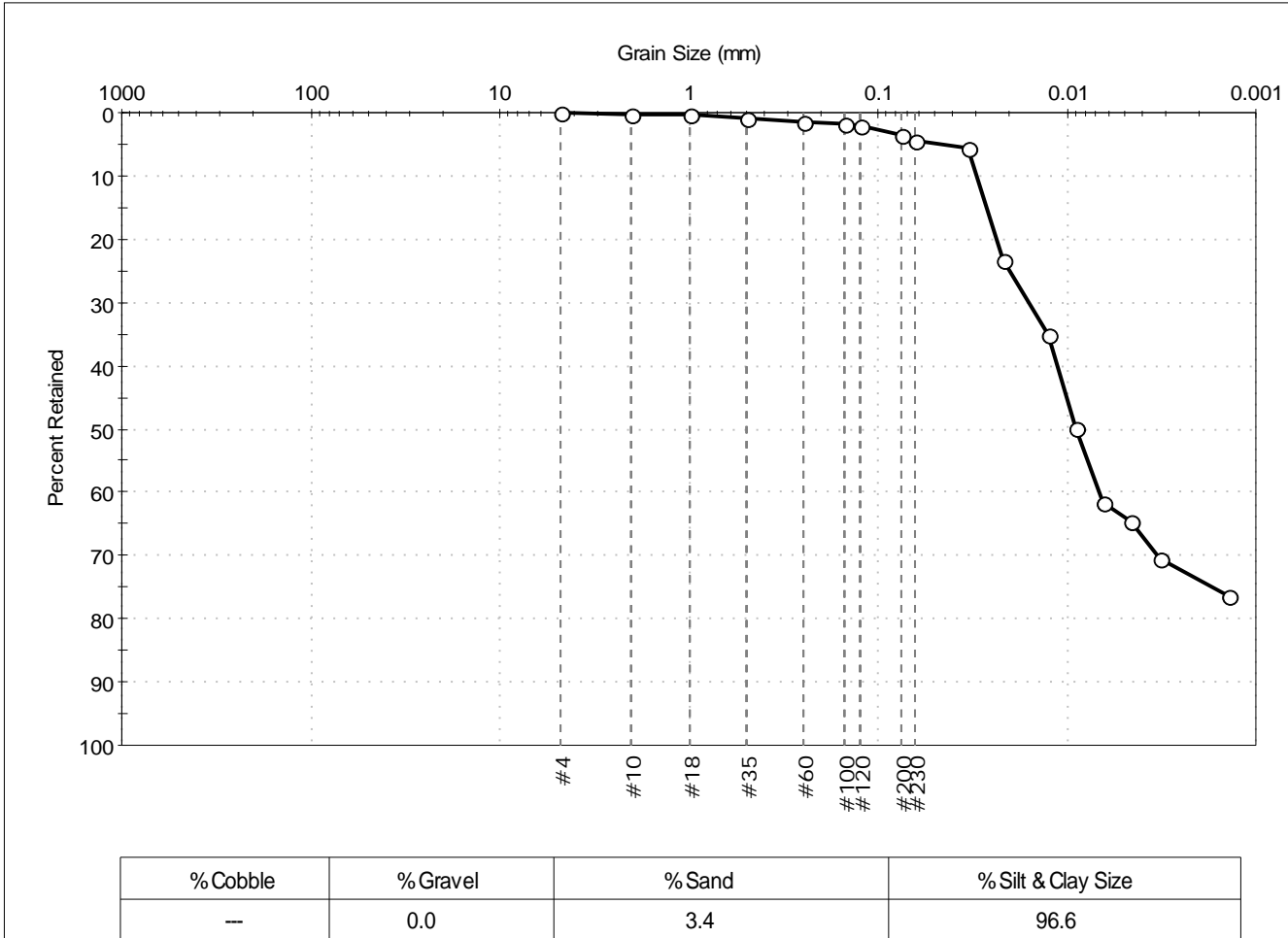
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	231-14LTM	Sample Type:	bag
Sample ID:	NBH14-0197	Test Date:	11/17/14
Depth:	---	Test Id:	310191
Test Comment:	---		
Sample Description:	Wet, dark olive gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	3		
#230	0.063	4		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0335	6		
---	0.0215	23		
---	0.0126	35		
---	0.0090	50		
---	0.0065	62		
---	0.0046	65		
---	0.0033	70		
---	0.0014	76		

<u>Coefficients</u>	
D ₈₅ = 0.0264 mm	D ₃₀ = 0.0033 mm
D ₆₀ = 0.0113 mm	D ₁₅ = N/A
D ₅₀ = 0.0090 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

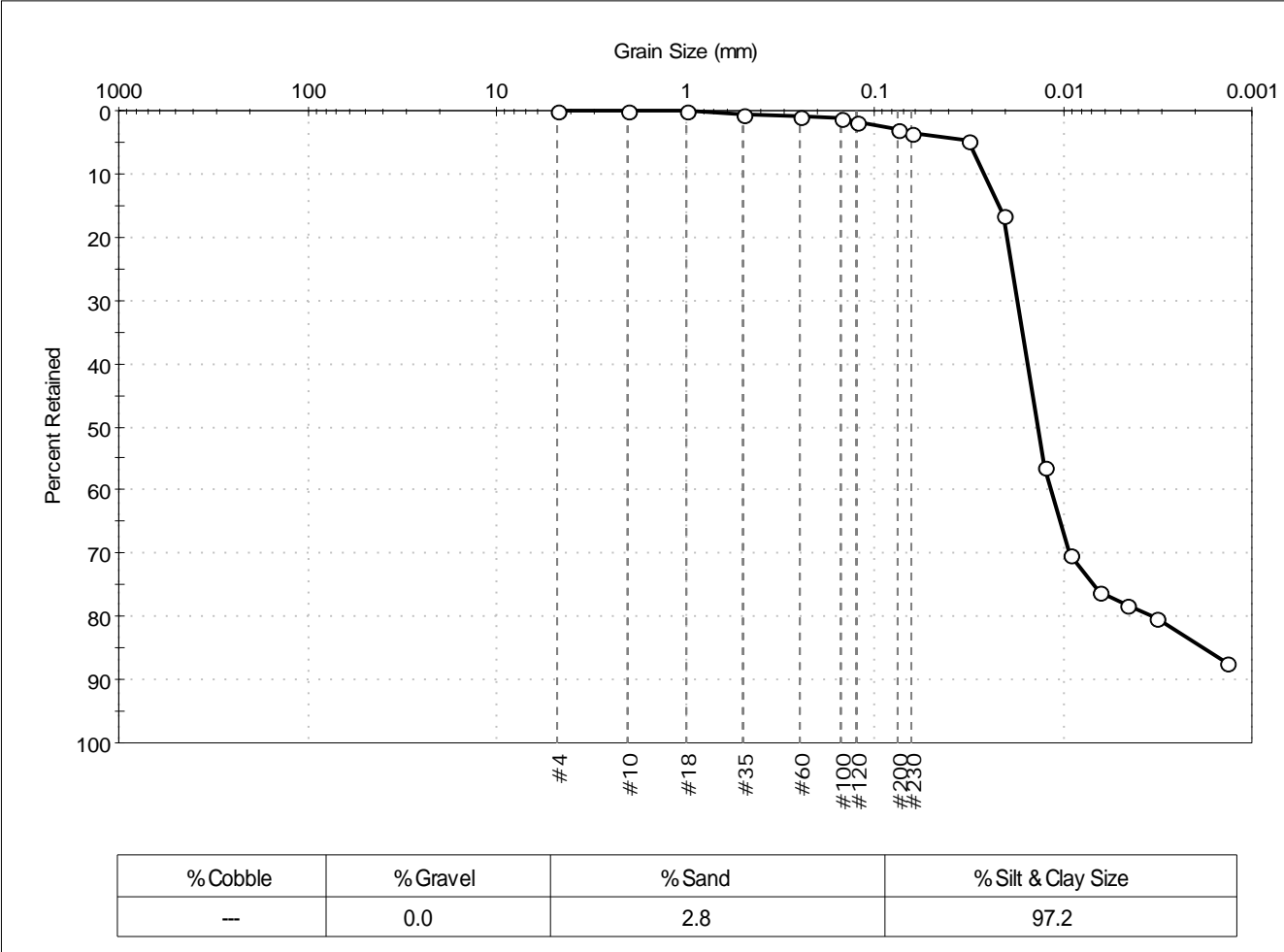
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 231-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0198	Test Date: 11/12/14	Test Id: 310192	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	3		
#230	0.063	4		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0318	5		
---	0.0205	17		
---	0.0126	56		
---	0.0091	70		
---	0.0065	76		
---	0.0046	78		
---	0.0033	80		
---	0.0014	87		

<u>Coefficients</u>	
D ₈₅ = 0.0218 mm	D ₃₀ = 0.0091 mm
D ₆₀ = 0.0154 mm	D ₁₅ = 0.0018 mm
D ₅₀ = 0.0136 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

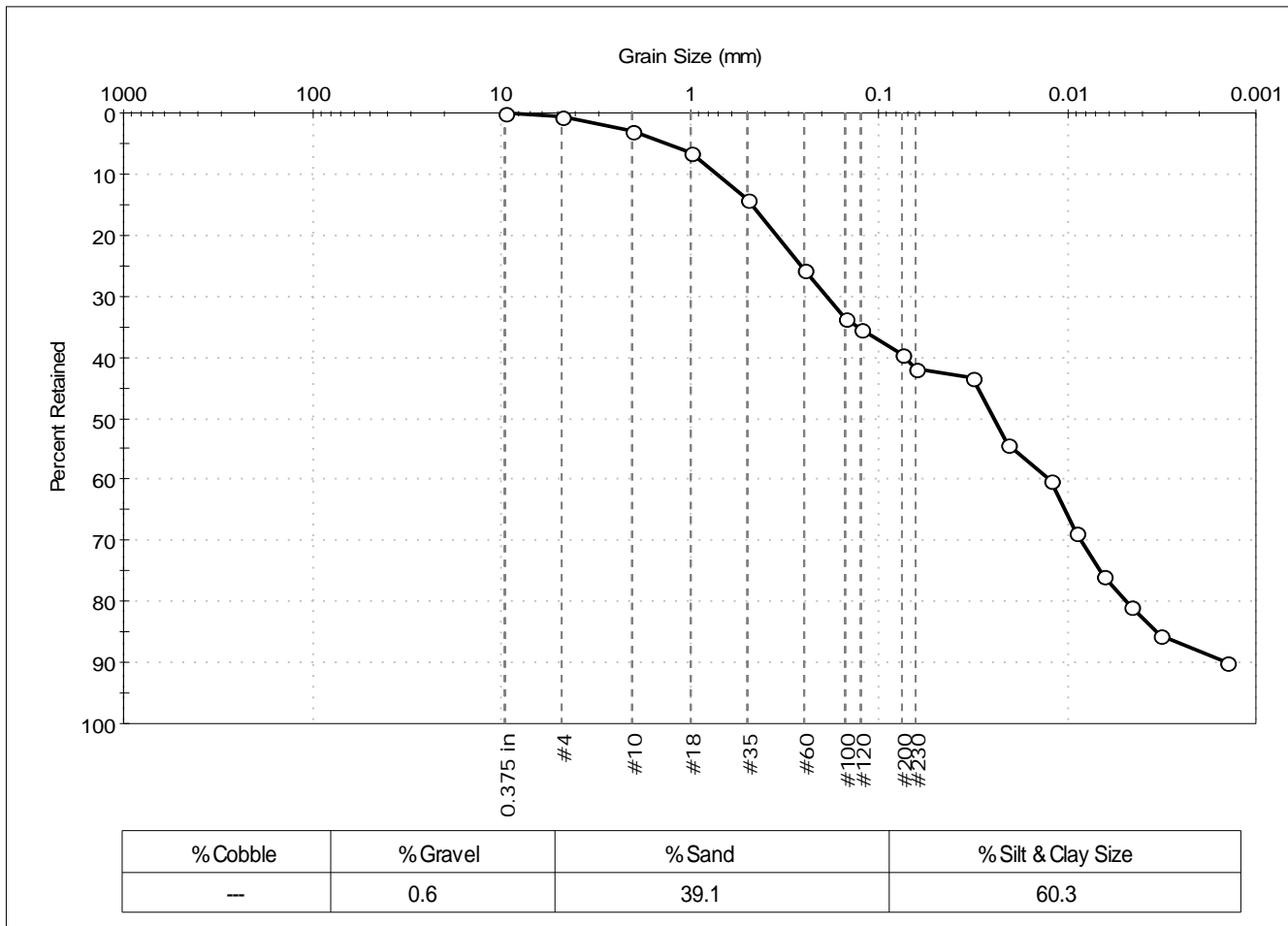
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	230-14LTM	Sample Type:	bag
Sample ID:	NBH14-0199	Test Date:	11/17/14
Depth:	---	Test Id:	310195
Test Comment:	---		
Sample Description:	Wet, dark olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	7		
#35	0.50	14		
#60	0.25	26		
#100	0.15	33		
#120	0.12	35		
#200	0.075	40		
#230	0.063	42		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0321	43		
---	0.0209	54		
---	0.0123	60		
---	0.0089	69		
---	0.0064	76		
---	0.0046	81		
---	0.0033	86		
---	0.0014	90		

<u>Coefficients</u>	
D ₈₅ = 0.4775 mm	D ₃₀ = 0.0083 mm
D ₆₀ = 0.0731 mm	D ₁₅ = 0.0034 mm
D ₅₀ = 0.0246 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

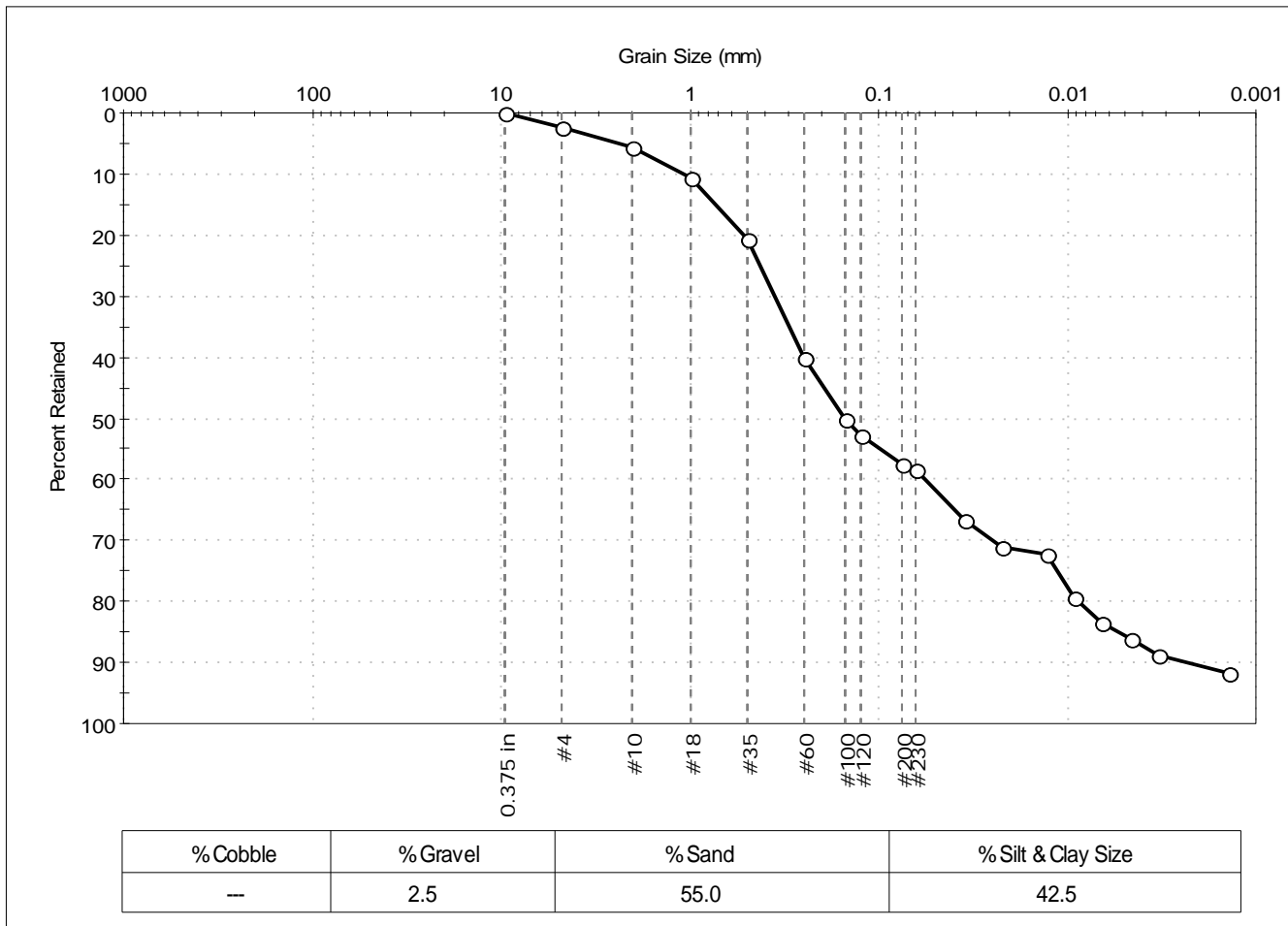
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 230-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0200
 Test Date: 11/04/14
 Checked By: jdt
 Depth: ---
 Test Id: 310196
 Test Comment: ---
 Sample Description: Wet, very dark gray silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	6		
#18	1.00	11		
#35	0.50	21		
#60	0.25	40		
#100	0.15	50		
#120	0.12	53		
#200	0.075	57		
#230	0.063	58		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0347	67		
---	0.0221	71		
---	0.0128	72		
---	0.0092	79		
---	0.0065	83		
---	0.0046	86		
---	0.0033	89		
---	0.0014	92		

Coefficients

D ₈₅ = 0.7418 mm	D ₃₀ = 0.0245 mm
D ₆₀ = 0.2505 mm	D ₁₅ = 0.0054 mm
D ₅₀ = 0.1522 mm	D ₁₀ = 0.0024 mm
C _u = 104.375	C _c = 0.998

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

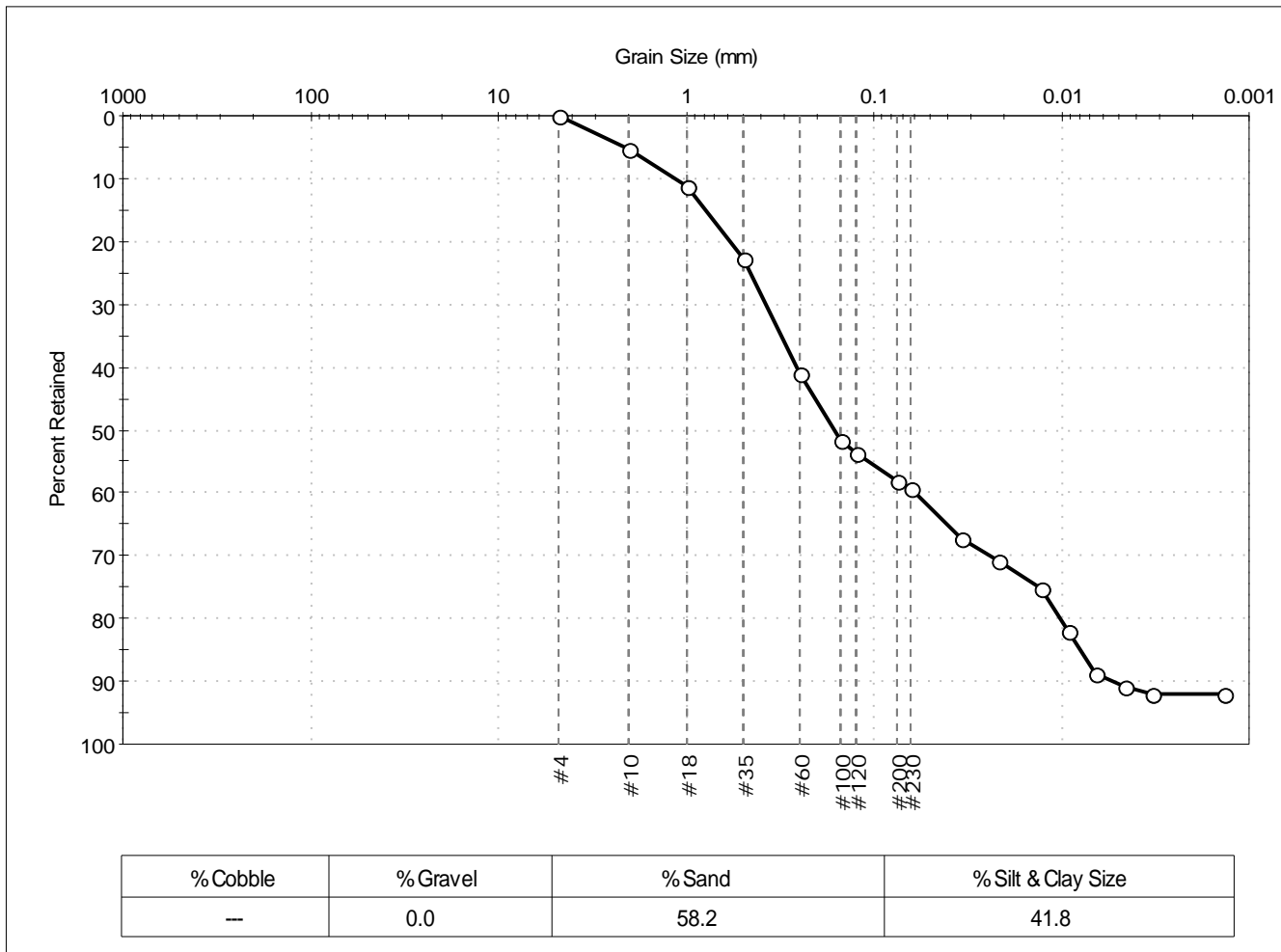
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 230-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0200DUP	Test Date: 10/23/14	Test Id: 310197	
Depth: ---	Test Comment: ---		
Sample Description: Wet, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	5		
#18	1.00	11		
#35	0.50	23		
#60	0.25	41		
#100	0.15	52		
#120	0.12	54		
#200	0.075	58		
#230	0.063	59		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	67		
---	0.0217	71		
---	0.0127	75		
---	0.0091	82		
---	0.0066	89		
---	0.0047	91		
---	0.0033	92		
---	0.0014	92		

<u>Coefficients</u>	
D ₈₅ = 0.7901 mm	D ₃₀ = 0.0240 mm
D ₆₀ = 0.2596 mm	D ₁₅ = 0.0079 mm
D ₅₀ = 0.1629 mm	D ₁₀ = 0.0054 mm
C _u = 48.074	C _c = 0.411

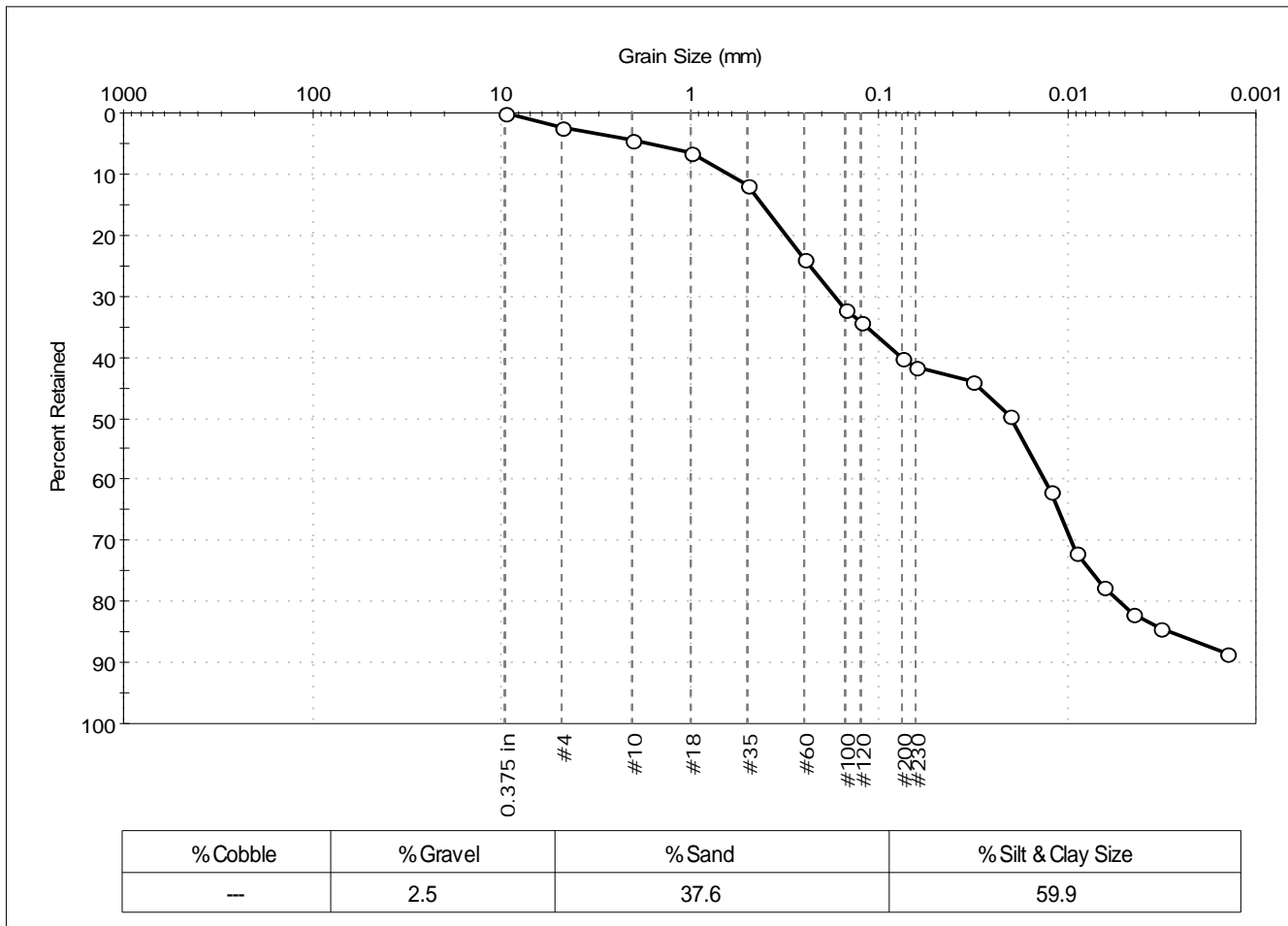
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	230-14LTM	Sample Type:	bag
Sample ID:	NBH14-0201	Test Date:	11/14/14
Depth:	---	Test Id:	310198
Test Comment:	---		
Sample Description:	Moist, dark olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	4		
#18	1.00	7		
#35	0.50	12		
#60	0.25	24		
#100	0.15	32		
#120	0.12	34		
#200	0.075	40		
#230	0.063	42		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0318	44		
---	0.0205	50		
---	0.0122	62		
---	0.0089	72		
---	0.0064	78		
---	0.0045	82		
---	0.0033	84		
---	0.0014	88		

<u>Coefficients</u>	
D ₈₅ = 0.4156 mm	D ₃₀ = 0.0095 mm
D ₆₀ = 0.0755 mm	D ₁₅ = 0.0028 mm
D ₅₀ = 0.0201 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

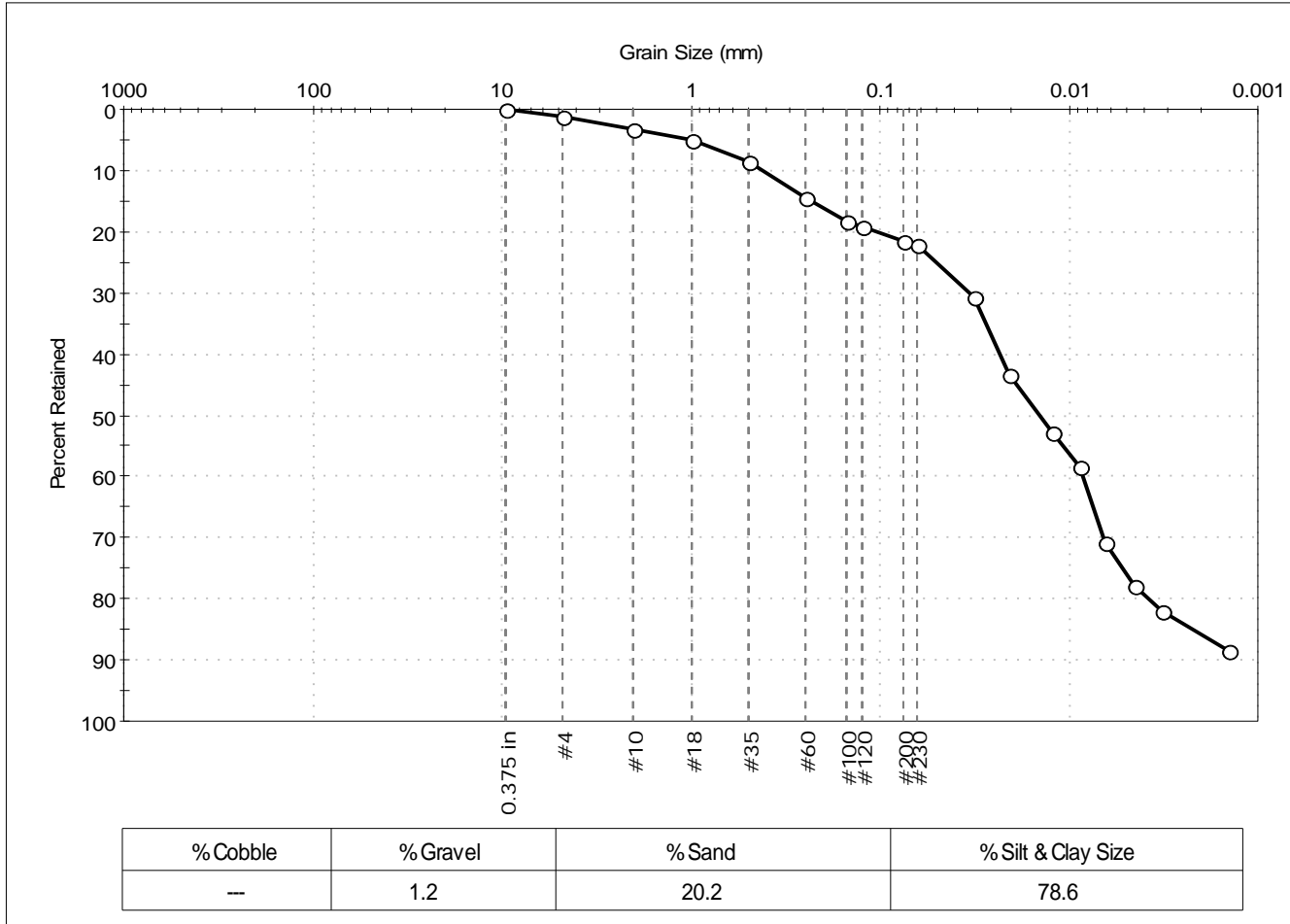
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 230-14LTM	Sample Type: bag
Sample ID: NBH14-0202	Test Date: 11/17/14
Depth: ---	Test Id: 310199
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark olive silt with sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	5		
#35	0.50	9		
#60	0.25	15		
#100	0.15	18		
#120	0.12	19		
#200	0.075	21		
#230	0.063	22		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	31		
---	0.0207	43		
---	0.0122	53		
---	0.0088	58		
---	0.0064	71		
---	0.0045	78		
---	0.0032	82		
---	0.0014	88		

<u>Coefficients</u>	
D ₈₅ = 0.2337 mm	D ₃₀ = 0.0065 mm
D ₆₀ = 0.0231 mm	D ₁₅ = 0.0022 mm
D ₅₀ = 0.0143 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

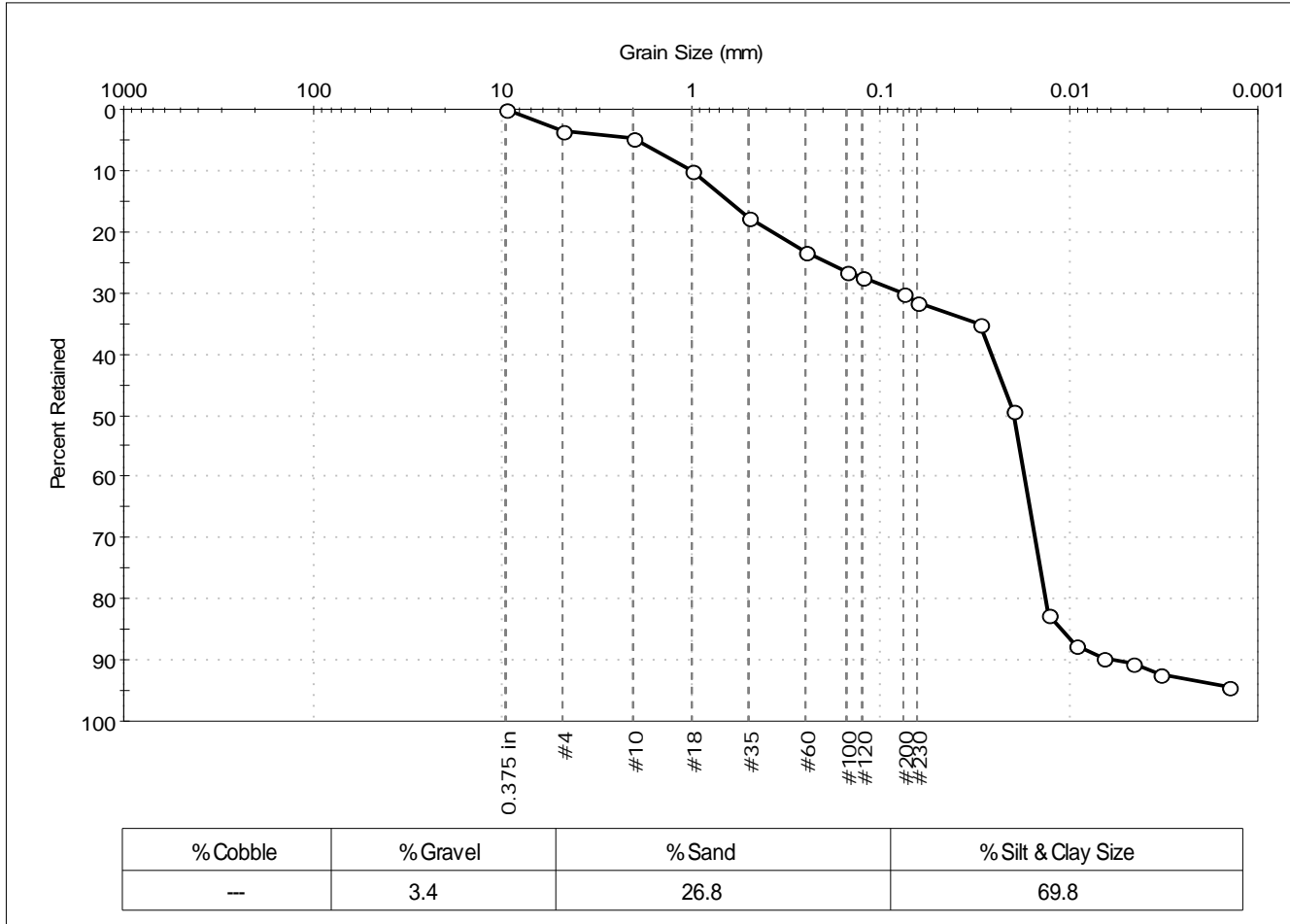
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	117-14LTM	Sample Type:	bag
Sample ID:	NBH14-0203	Test Date:	11/17/14
Depth:	---	Test Id:	310200
Test Comment:	---		
Sample Description:	Wet, dark olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	5		
#18	1.00	10		
#35	0.50	18		
#60	0.25	23		
#100	0.15	27		
#120	0.12	27		
#200	0.075	30		
#230	0.063	31		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0298	35		
---	0.0200	49		
---	0.0129	83		
---	0.0093	88		
---	0.0066	90		
---	0.0046	90		
---	0.0033	92		
---	0.0014	94		

<u>Coefficients</u>	
D ₈₅ = 0.6384 mm	D ₃₀ = 0.0152 mm
D ₆₀ = 0.0259 mm	D ₁₅ = 0.0110 mm
D ₅₀ = 0.0198 mm	D ₁₀ = 0.0056 mm
C _u = 4.625	C _c = 1.593

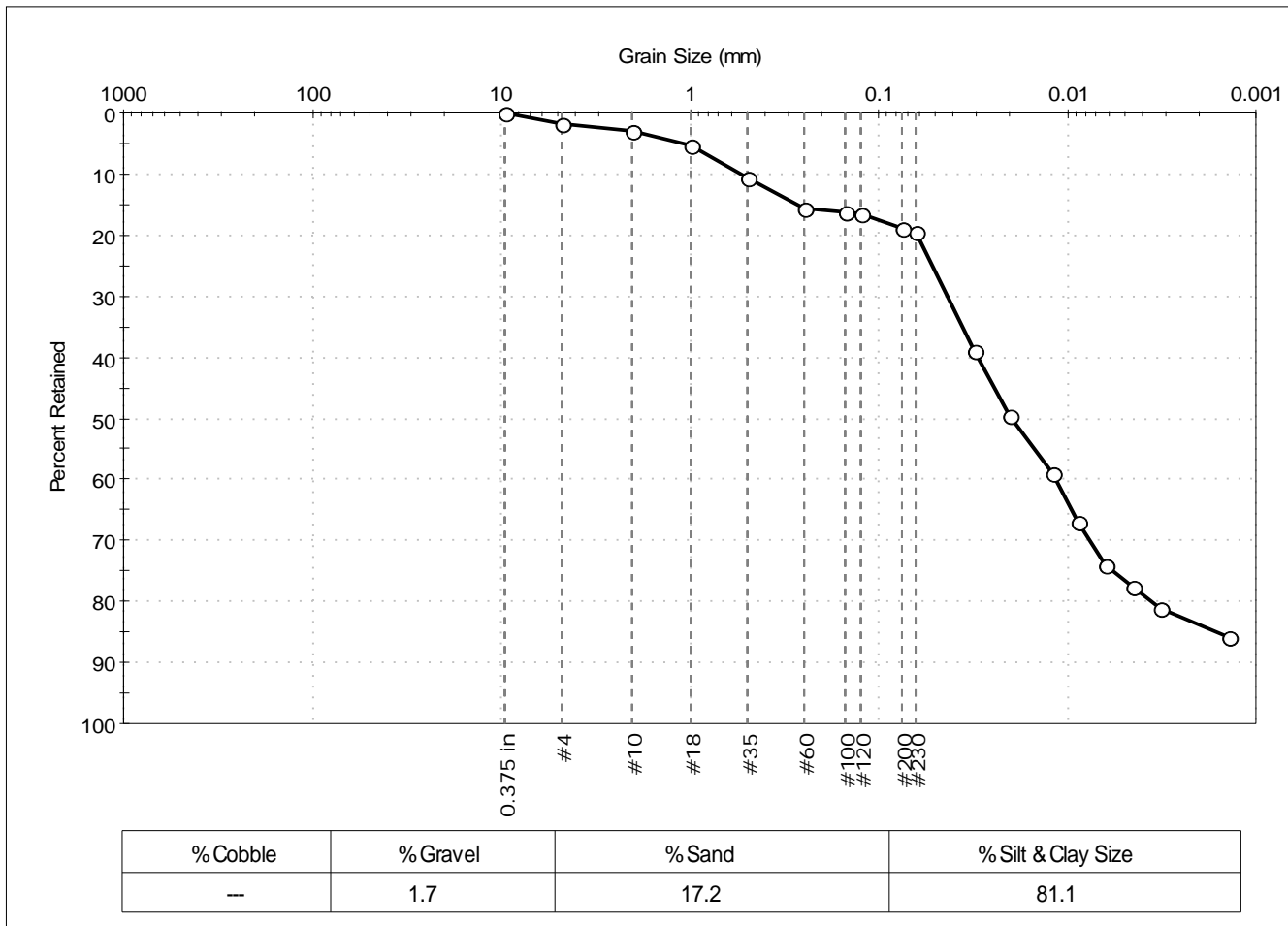
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 117-14LTM	Sample Type: bag
Sample ID: NBH14-0204	Test Date: 11/12/14
Depth: ---	Test Id: 310201
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark olive gray silt with sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	3		
#18	1.00	5		
#35	0.50	11		
#60	0.25	16		
#100	0.15	16		
#120	0.12	17		
#200	0.075	19		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0312	39		
---	0.0202	49		
---	0.0121	59		
---	0.0087	67		
---	0.0063	74		
---	0.0045	78		
---	0.0032	81		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.2695 mm	D ₃₀ = 0.0076 mm
D ₆₀ = 0.0298 mm	D ₁₅ = 0.0016 mm
D ₅₀ = 0.0197 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

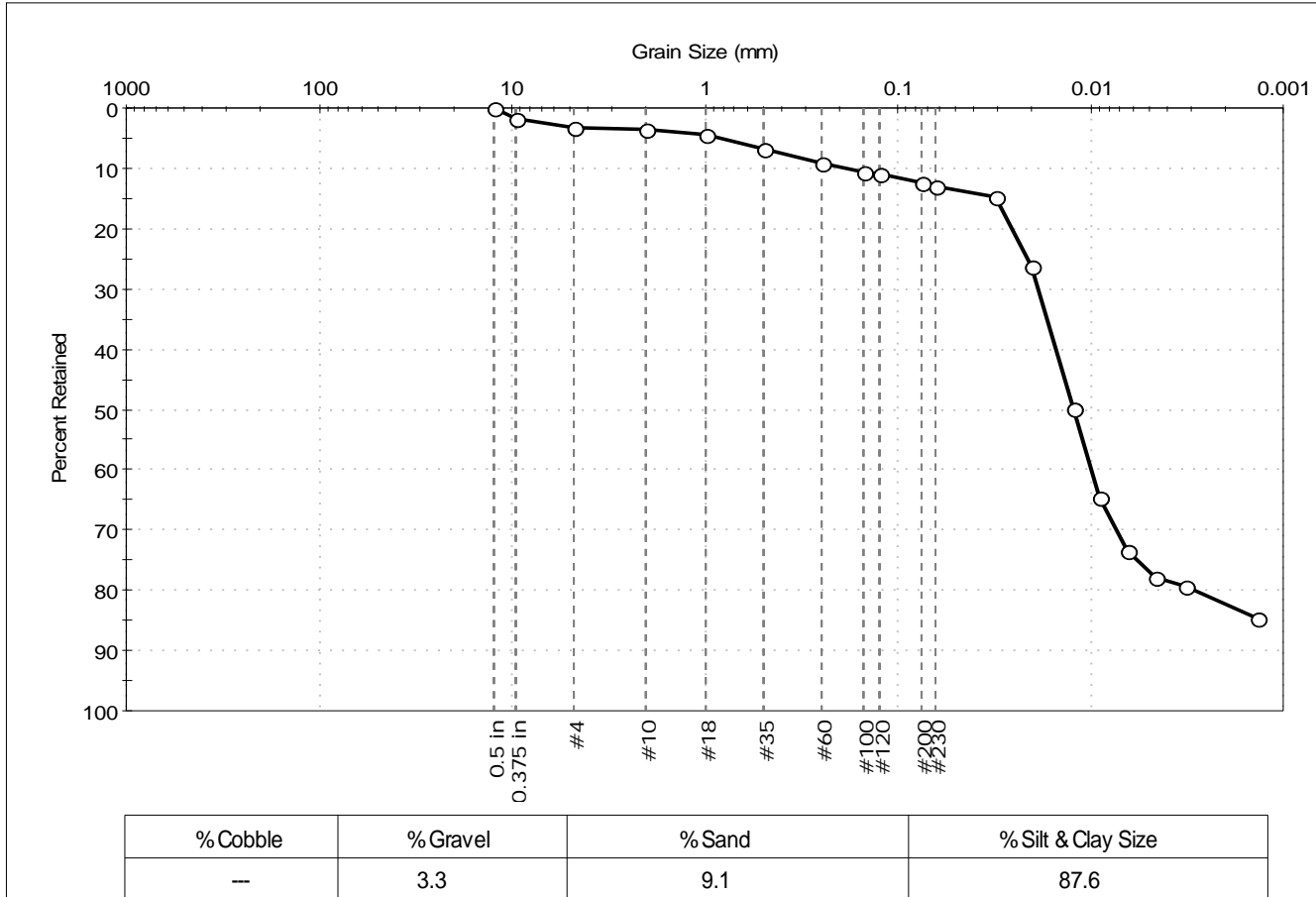
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 117-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0205	Test Date: 11/12/14	Depth: ---	Test Id: 310202
Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	2		
#4	4.75	3		
#10	2.00	3		
#18	1.00	4		
#35	0.50	7		
#60	0.25	9		
#100	0.15	10		
#120	0.12	11		
#200	0.075	12		
#230	0.063	13		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0309	15		
---	0.0201	26		
---	0.0123	50		
---	0.0089	65		
---	0.0064	74		
---	0.0046	78		
---	0.0032	79		
---	0.0014	85		

Coefficients

D ₈₅ = 0.0304 mm	D ₃₀ = 0.0073 mm
D ₆₀ = 0.0151 mm	D ₁₅ = N/A
D ₅₀ = 0.0122 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

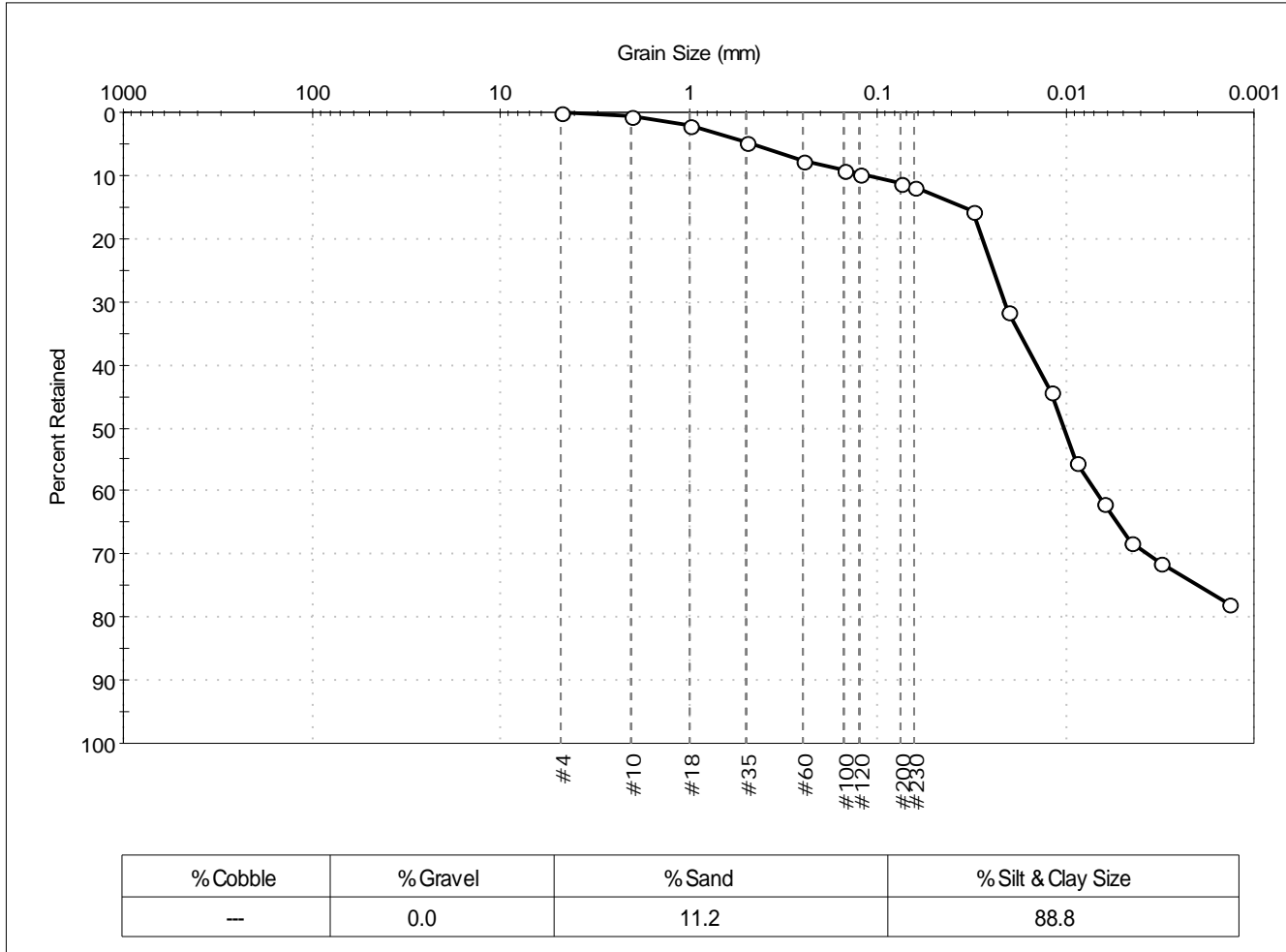
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 117-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0206	Test Date: 11/17/14	Test Id: 310203	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	5		
#60	0.25	8		
#100	0.15	9		
#120	0.12	10		
#200	0.075	11		
#230	0.063	12		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0309	16		
---	0.0204	32		
---	0.0121	44		
---	0.0087	55		
---	0.0062	62		
---	0.0045	68		
---	0.0032	71		
---	0.0014	78		

<u>Coefficients</u>	
D ₈₅ = 0.0350 mm	D ₃₀ = 0.0037 mm
D ₆₀ = 0.0145 mm	D ₁₅ = N/A
D ₅₀ = 0.0102 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

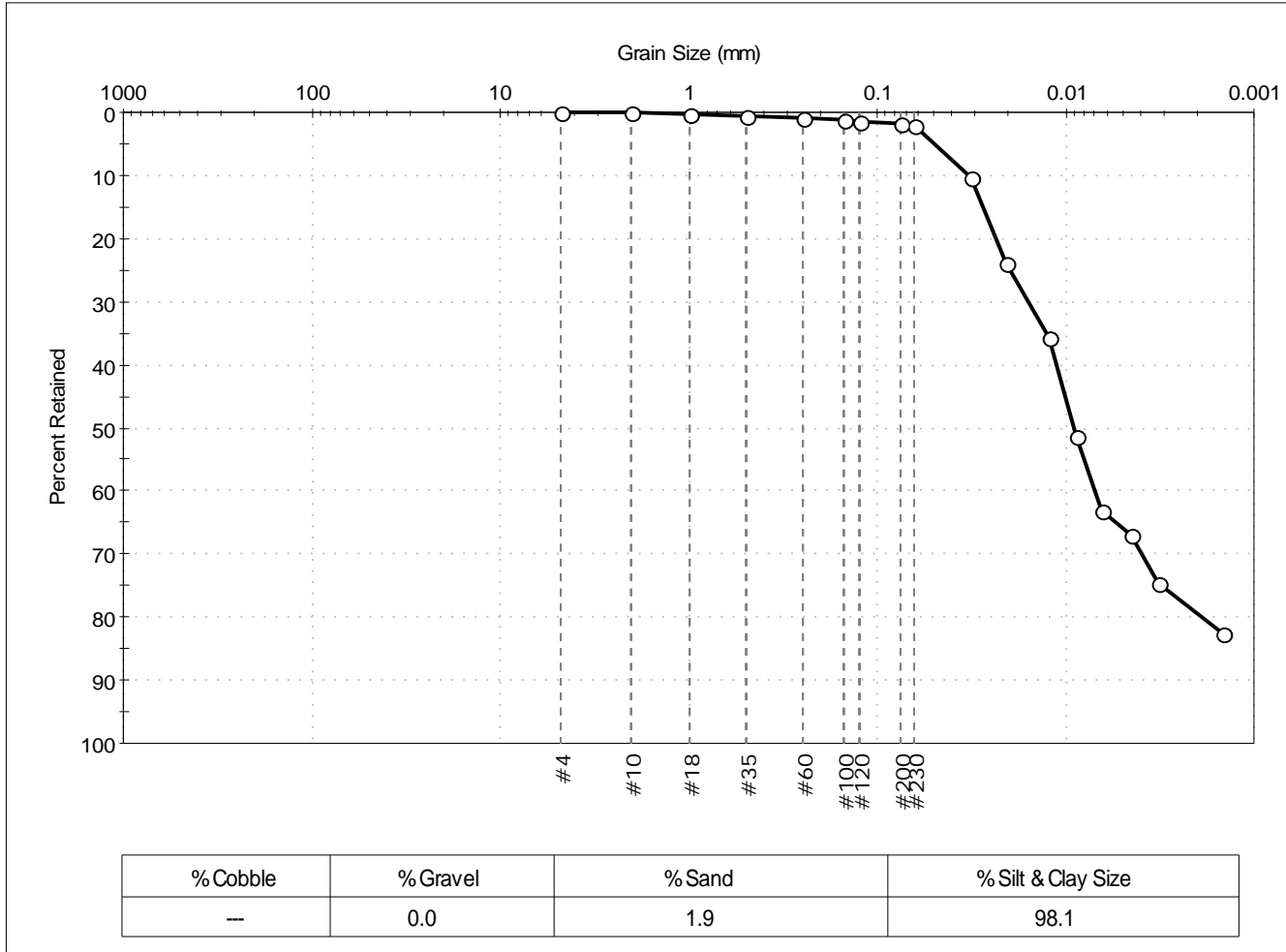
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	114-14LTM	Sample Type:	bag
Sample ID:	NBH14-0207	Test Date:	11/12/14
Depth:	---	Test Id:	310204
Test Comment:	---		
Sample Description:	Moist, very dark gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	2		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	10		
---	0.0207	24		
---	0.0122	36		
---	0.0089	51		
---	0.0064	63		
---	0.0045	67		
---	0.0032	75		
---	0.0015	82		

<u>Coefficients</u>	
D ₈₅ = 0.0276 mm	D ₃₀ = 0.0039 mm
D ₆₀ = 0.0112 mm	D ₁₅ = N/A
D ₅₀ = 0.0091 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

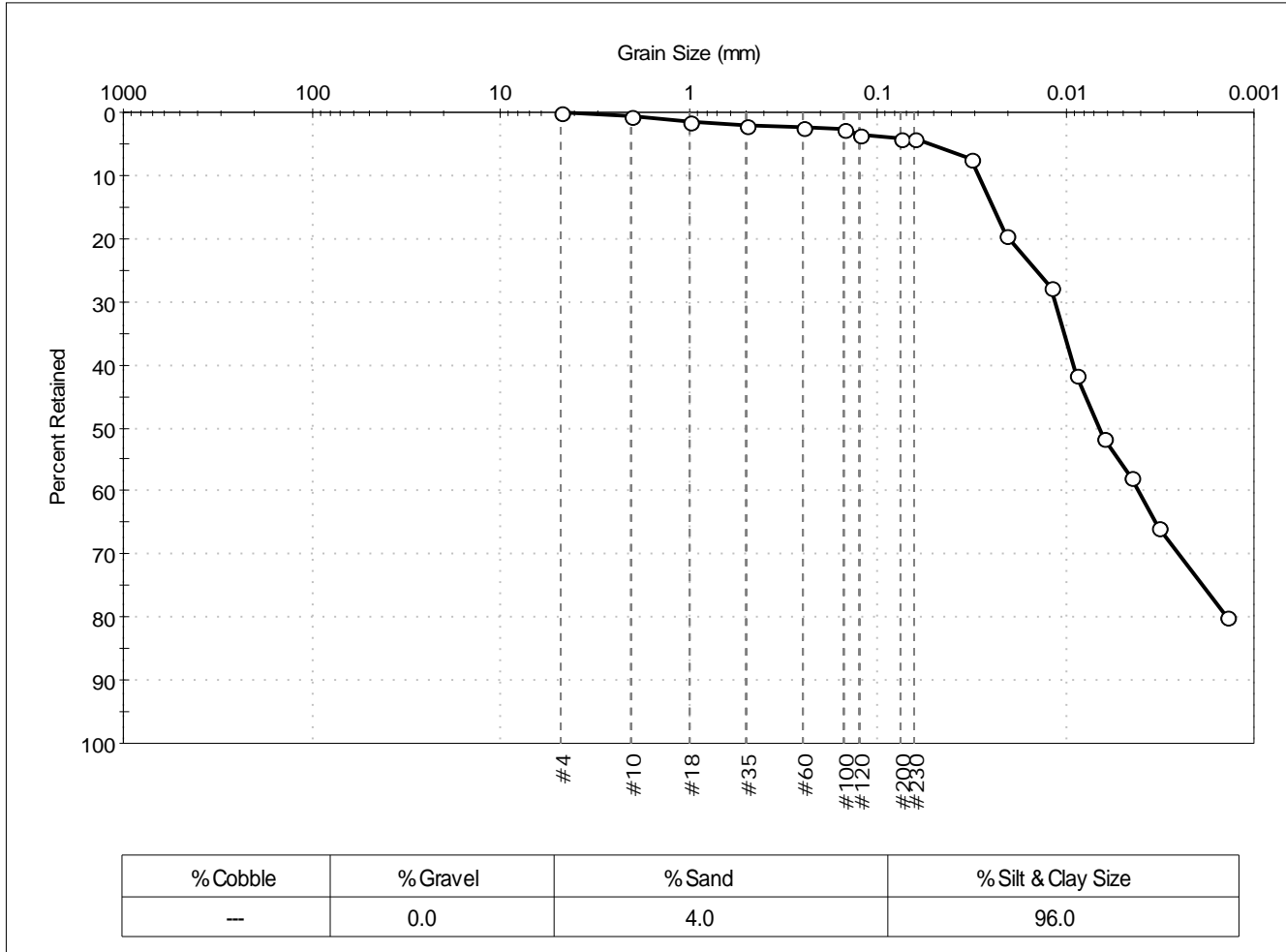
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	114-14LTM	Sample Type:	bag
Sample ID:	NBH14-0208	Test Date:	11/12/14
Depth:	---	Test Id:	310205
Test Comment:	---		
Sample Description:	Wet, very dark olive gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	1		
#35	0.50	2		
#60	0.25	2		
#100	0.15	3		
#120	0.12	3		
#200	0.075	4		
#230	0.063	4		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	8		
---	0.0206	20		
---	0.0120	28		
---	0.0087	42		
---	0.0062	52		
---	0.0045	58		
---	0.0032	66		
---	0.0014	80		

<u>Coefficients</u>	
D ₈₅ = 0.0242 mm	D ₃₀ = 0.0025 mm
D ₆₀ = 0.0090 mm	D ₁₅ = N/A
D ₅₀ = 0.0066 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

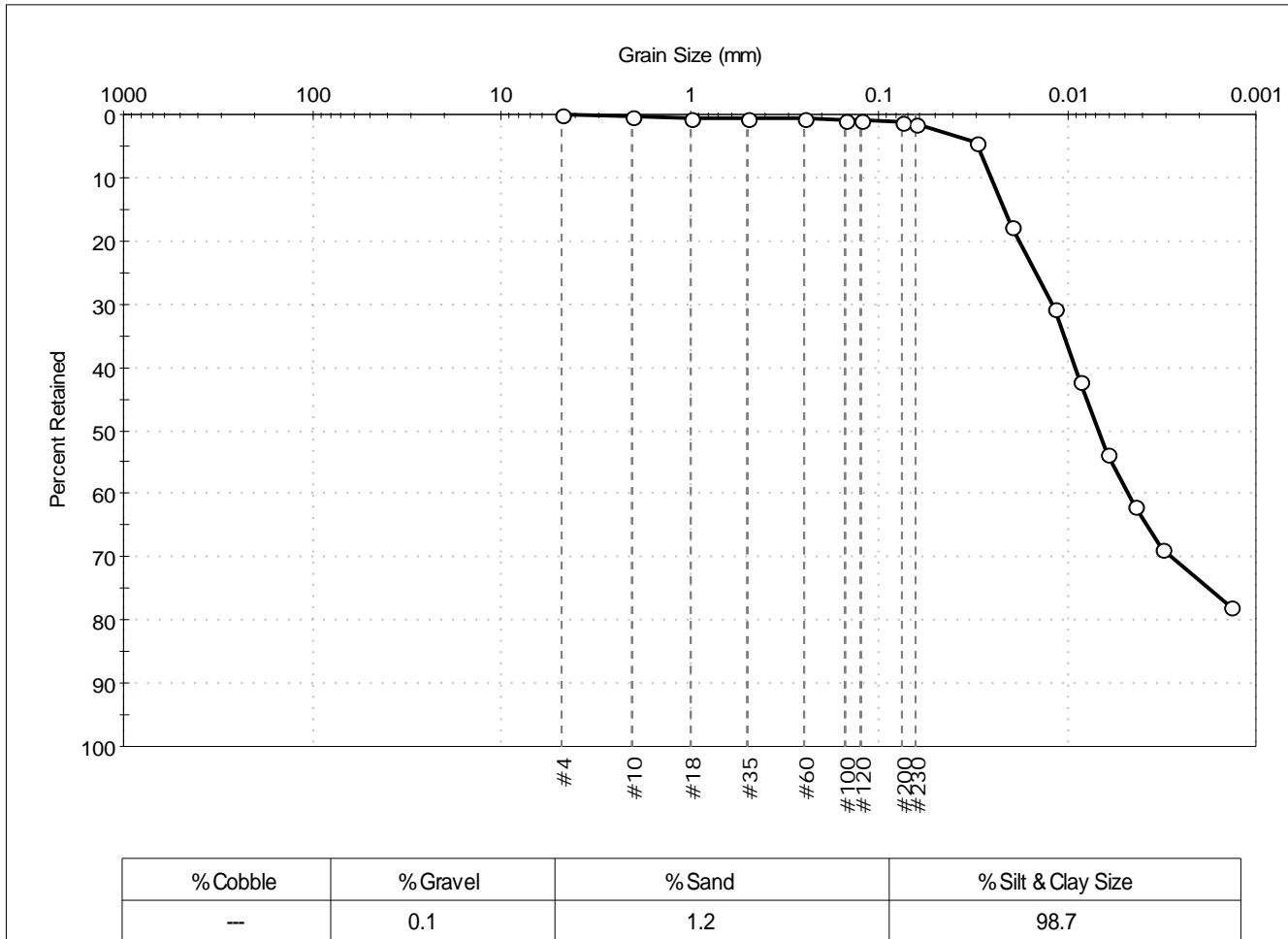
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 114-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0209	Test Date: 11/18/14	Test Id: 310206	
Depth: ---	Test Comment: ---		
Sample Description: Wet, very dark olive gray silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	1		
#230	0.063	1		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0303	4		
---	0.0199	18		
---	0.0118	31		
---	0.0085	42		
---	0.0062	54		
---	0.0044	62		
---	0.0032	69		
---	0.0014	78		

<u>Coefficients</u>	
D ₈₅ = 0.0216 mm	D ₃₀ = 0.0028 mm
D ₆₀ = 0.0091 mm	D ₁₅ = N/A
D ₅₀ = 0.0069 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

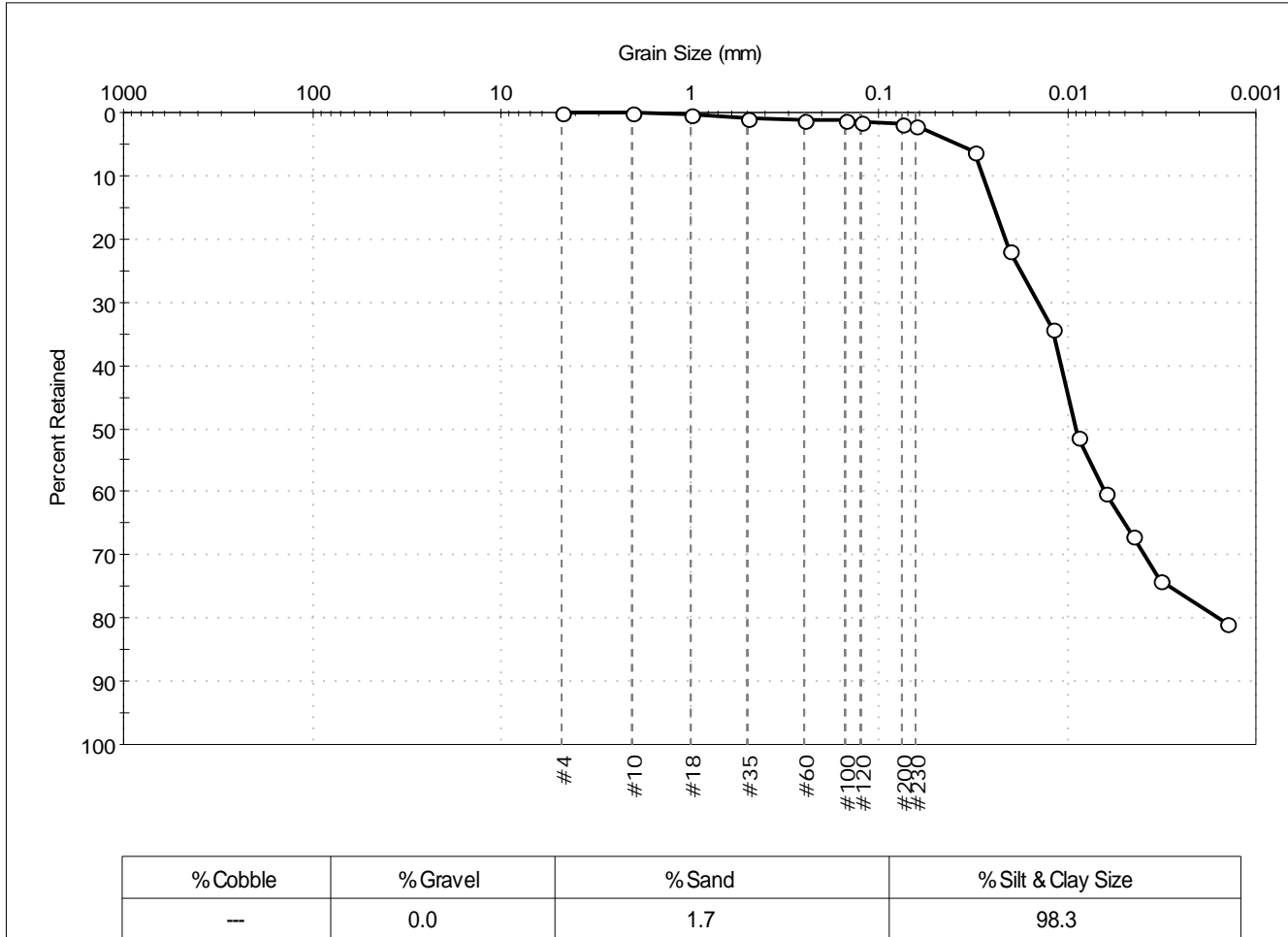
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	114-14LTM	Sample Type:	bag
Sample ID:	NBH14-0210	Test Date:	11/12/14
Depth:	---	Test Id:	310207
Test Comment:	---		
Sample Description:	Moist, very dark gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	2		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0312	6		
---	0.0203	22		
---	0.0119	34		
---	0.0088	51		
---	0.0063	60		
---	0.0045	67		
---	0.0032	74		
---	0.0014	81		

<u>Coefficients</u>	
D ₈₅ = 0.0246 mm	D ₃₀ = 0.0039 mm
D ₆₀ = 0.0107 mm	D ₁₅ = N/A
D ₅₀ = 0.0090 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

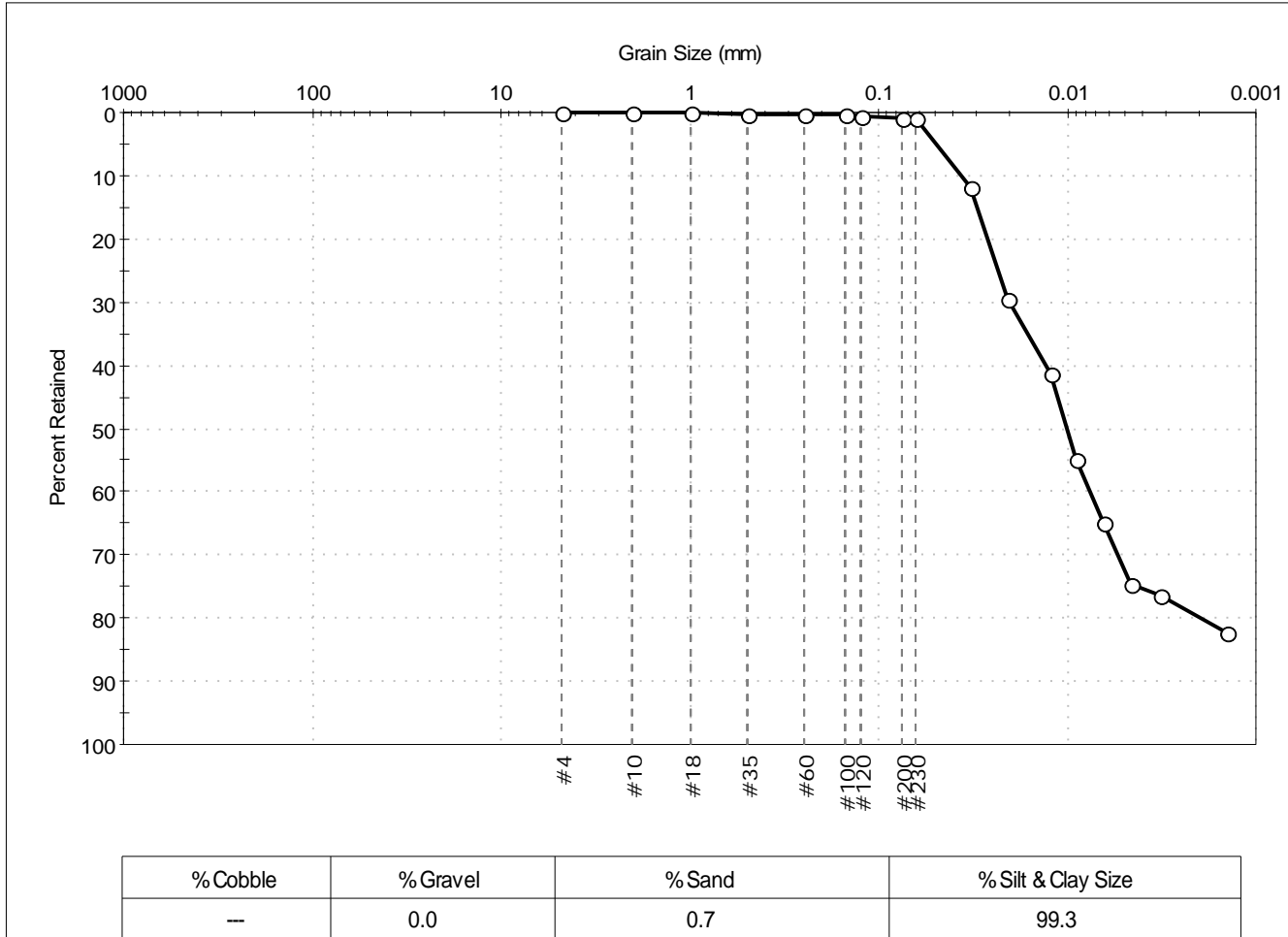
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 111-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0211	Test Date: 11/12/14	Test Id: 310208	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	0		
#100	0.15	0		
#120	0.12	1		
#200	0.075	1		
#230	0.063	1		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	12		
---	0.0209	30		
---	0.0123	41		
---	0.0089	55		
---	0.0064	65		
---	0.0046	75		
---	0.0032	77		
---	0.0014	82		

<u>Coefficients</u>	
D ₈₅ = 0.0299 mm	D ₃₀ = 0.0054 mm
D ₆₀ = 0.0130 mm	D ₁₅ = N/A
D ₅₀ = 0.0100 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

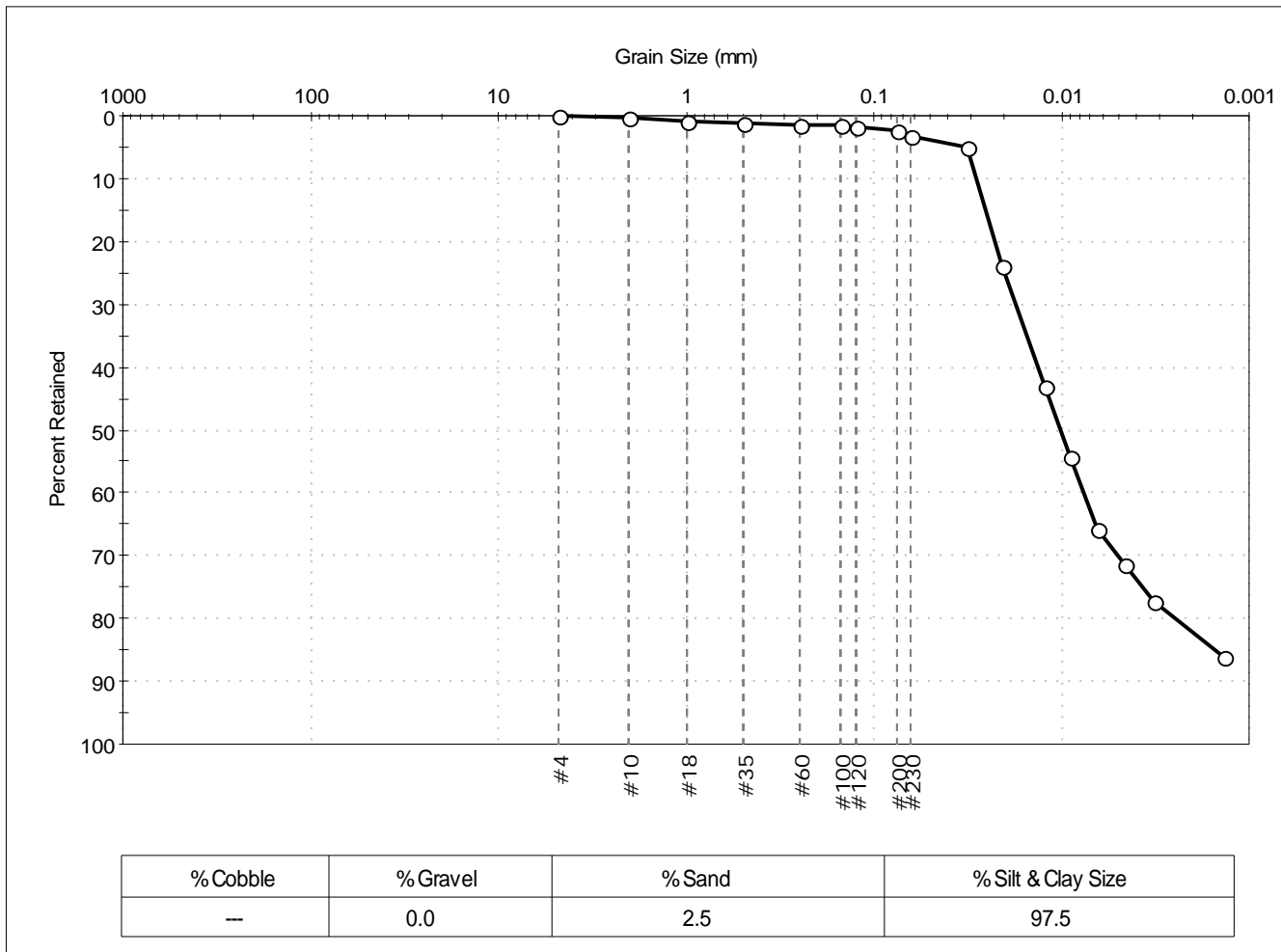
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 111-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0212	Test Date: 11/12/14	Test Id: 310209	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	2		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	5		
---	0.0207	24		
---	0.0123	43		
---	0.0089	54		
---	0.0064	66		
---	0.0046	71		
---	0.0032	77		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.0253 mm	D ₃₀ = 0.0050 mm
D ₆₀ = 0.0134 mm	D ₁₅ = 0.0015 mm
D ₅₀ = 0.0101 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

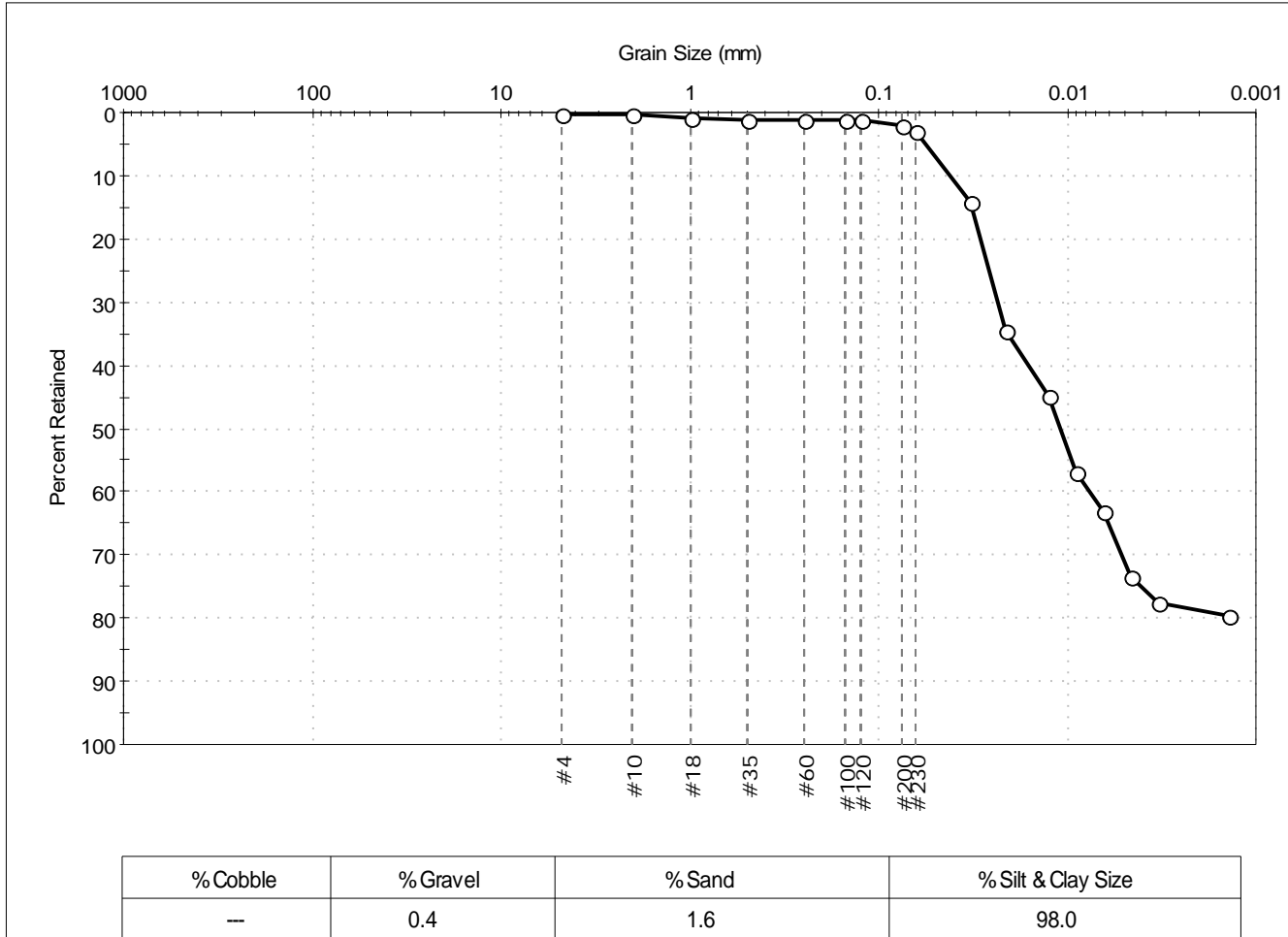
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 111-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0213	Test Date: 11/12/14	Test Id: 310210	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	2		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	14		
---	0.0212	35		
---	0.0124	45		
---	0.0090	57		
---	0.0064	63		
---	0.0046	73		
---	0.0033	78		
---	0.0014	80		

<u>Coefficients</u>	
D ₈₅ = 0.0319 mm	D ₃₀ = 0.0051 mm
D ₆₀ = 0.0160 mm	D ₁₅ = N/A
D ₅₀ = 0.0108 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

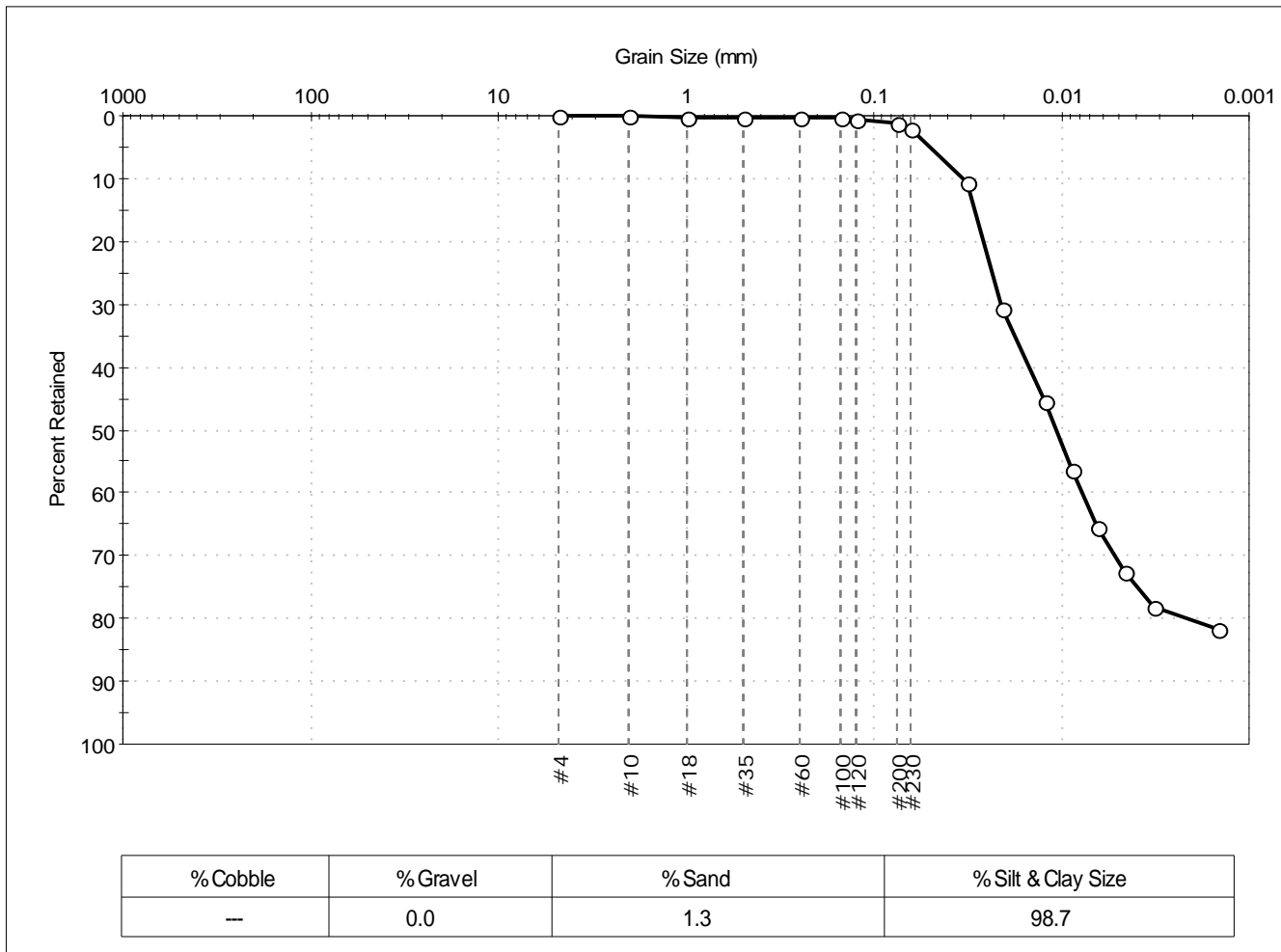
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 111-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0214	Test Date: 11/12/14	Test Id: 310211	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	0		
#100	0.15	0		
#120	0.12	0		
#200	0.075	1		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0315	11		
---	0.0208	31		
---	0.0123	45		
---	0.0089	56		
---	0.0064	65		
---	0.0046	73		
---	0.0033	78		
---	0.0015	82		

<u>Coefficients</u>	
D ₈₅ = 0.0288 mm	D ₃₀ = 0.0052 mm
D ₆₀ = 0.0149 mm	D ₁₅ = N/A
D ₅₀ = 0.0107 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

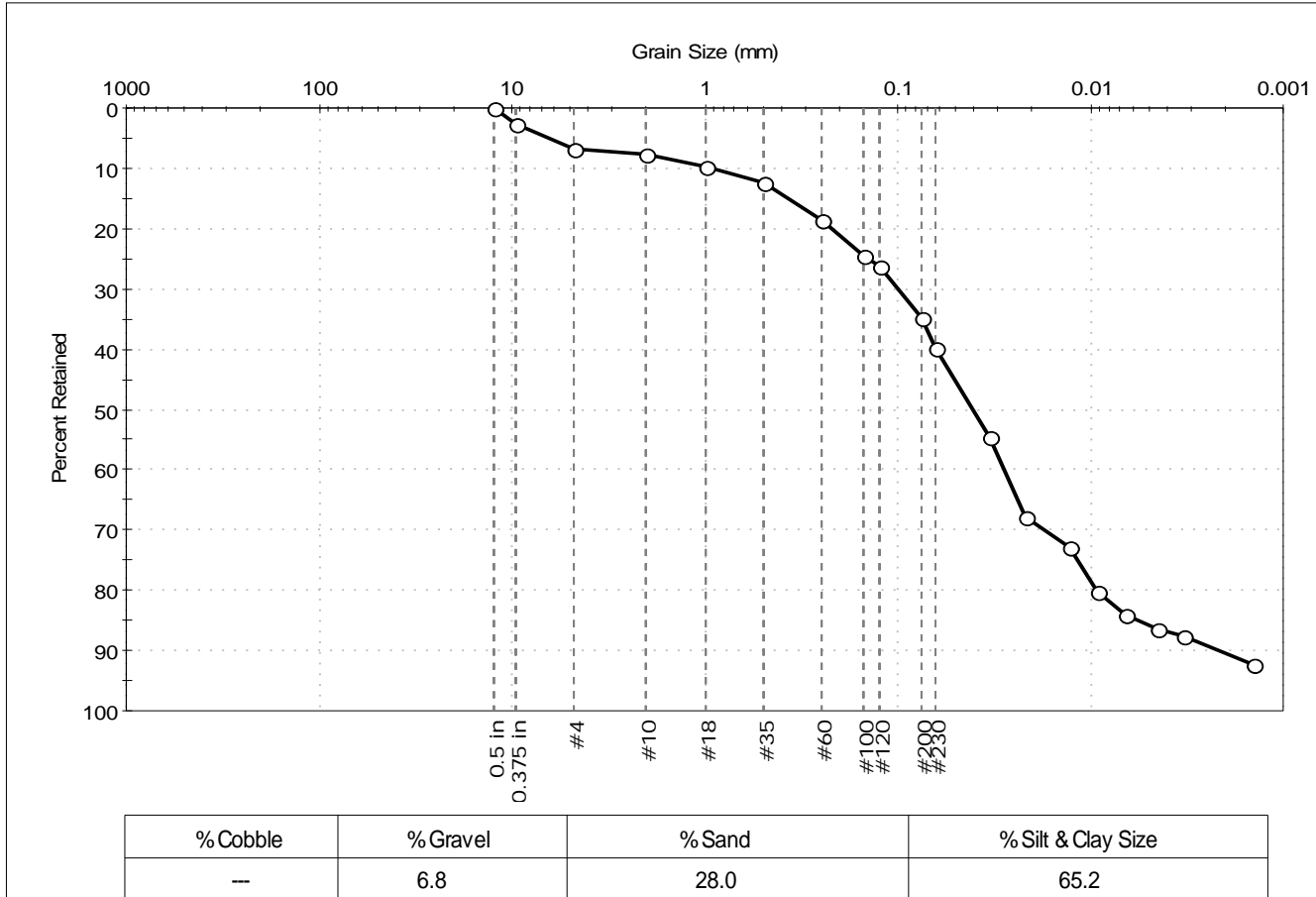
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 152-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0215	Test Date: 11/17/14	Depth: ---	Test Id: 310212
Test Comment: ---	Sample Description: Moist, very dark olive gray sandy silt	Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	3		
#4	4.75	7		
#10	2.00	8		
#18	1.00	10		
#35	0.50	12		
#60	0.25	18		
#100	0.15	24		
#120	0.12	26		
#200	0.075	35		
#230	0.063	40		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0332	54		
---	0.0217	68		
---	0.0127	73		
---	0.0091	80		
---	0.0065	84		
---	0.0045	86		
---	0.0033	88		
---	0.0014	92		

Coefficients

D ₈₅ = 0.3705 mm	D ₃₀ = 0.0175 mm
D ₆₀ = 0.0623 mm	D ₁₅ = 0.0056 mm
D ₅₀ = 0.0403 mm	D ₁₀ = 0.0021 mm
C _u = 29.667	C _c = 2.341

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

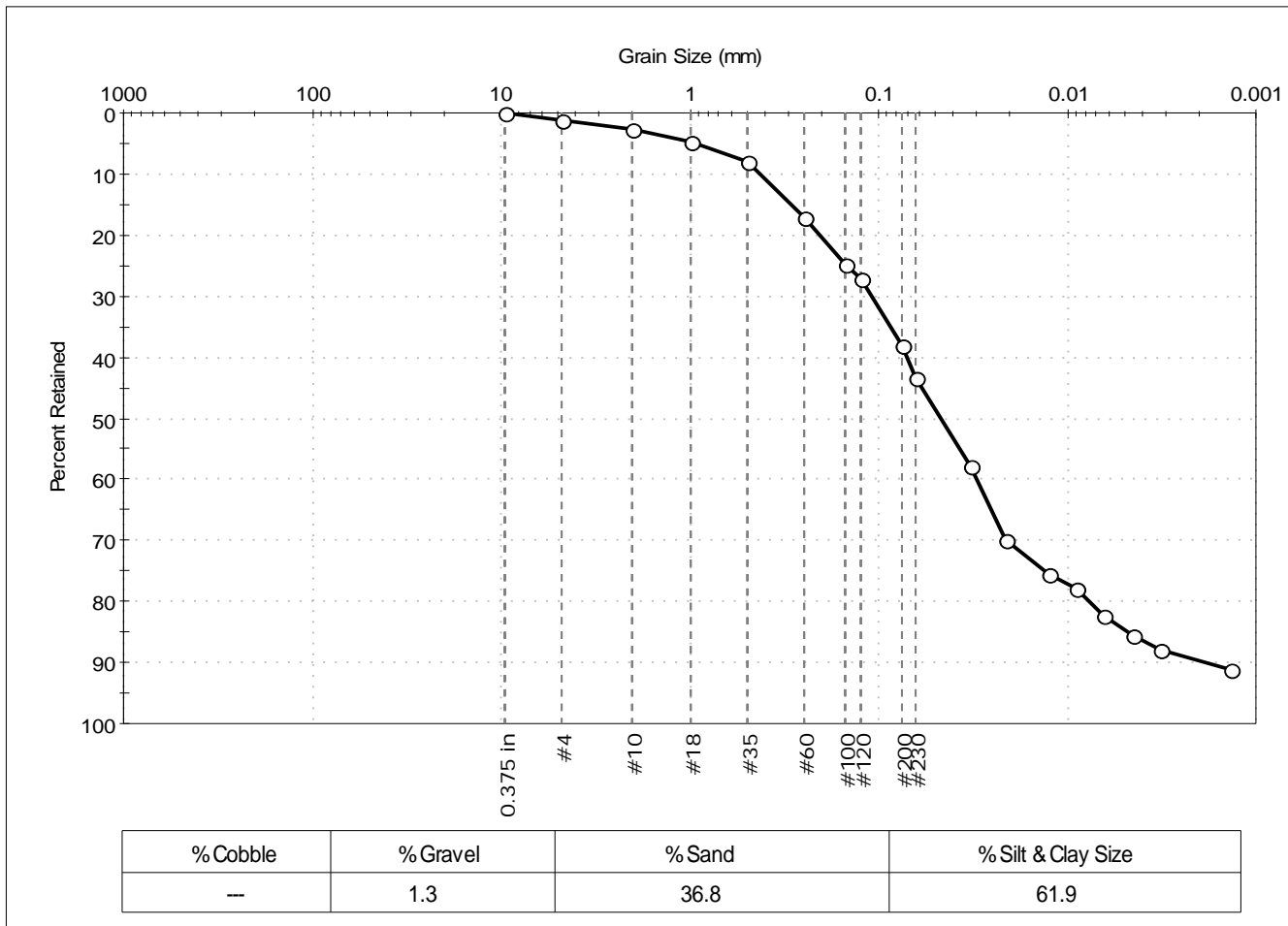
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 152-14LTM Sample Type: bag Tested By: jbr
 Sample ID: NBH14-0216 Test Date: 11/13/14 Checked By: jdt
 Depth: --- Test Id: 310213
 Test Comment: ---
 Sample Description: Moist, very dark olive gray sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	5		
#35	0.50	8		
#60	0.25	17		
#100	0.15	25		
#120	0.12	27		
#200	0.075	38		
#230	0.063	43		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0327	58		
---	0.0214	70		
---	0.0126	76		
---	0.0089	78		
---	0.0064	82		
---	0.0045	86		
---	0.0032	88		
---	0.0014	91		

Coefficients

D ₈₅ = 0.2944 mm	D ₃₀ = 0.0214 mm
D ₆₀ = 0.0705 mm	D ₁₅ = 0.0047 mm
D ₅₀ = 0.0467 mm	D ₁₀ = 0.0018 mm
C _u = 39.167	C _c = 3.609

Classification

ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

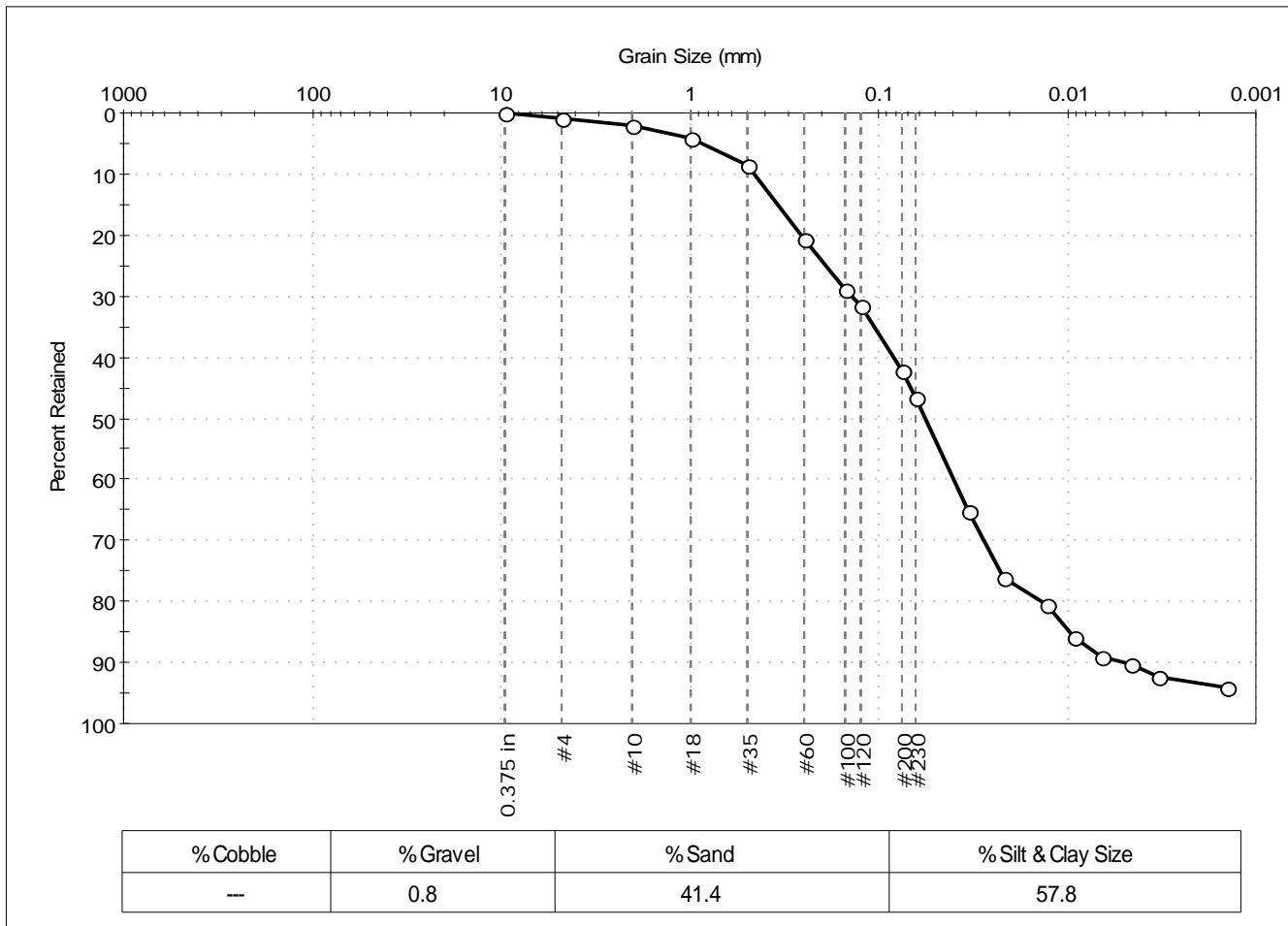
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 152-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0217
 Test Date: 11/17/14
 Checked By: jdt
 Depth: ---
 Test Id: 310214
 Test Comment: ---
 Sample Description: Moist, very dark olive gray sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	4		
#35	0.50	9		
#60	0.25	21		
#100	0.15	29		
#120	0.12	32		
#200	0.075	42		
#230	0.063	47		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	65		
---	0.0218	76		
---	0.0128	80		
---	0.0092	86		
---	0.0065	89		
---	0.0046	90		
---	0.0033	92		
---	0.0014	94		

Coefficients

D ₈₅ = 0.3459 mm	D ₃₀ = 0.0278 mm
D ₆₀ = 0.0836 mm	D ₁₅ = 0.0097 mm
D ₅₀ = 0.0562 mm	D ₁₀ = 0.0050 mm
C _u = 16.720	C _c = 1.849

Classification

ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

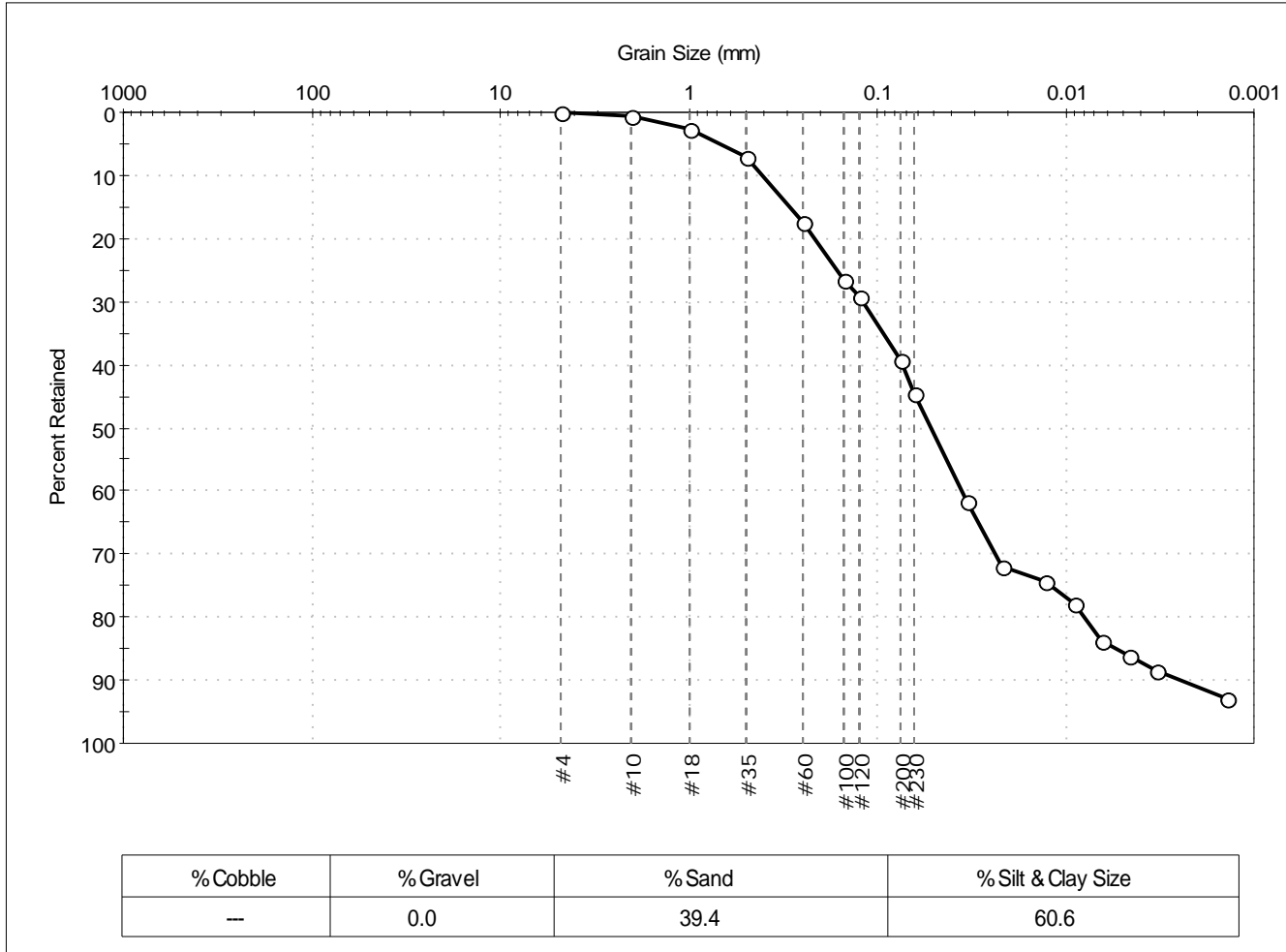
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	152-14LTM	Sample Type:	bag
Sample ID:	NBH14-0218	Test Date:	11/18/14
Depth:	---	Test Id:	310215
Test Comment:	---		
Sample Description:	Moist, very dark olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	7		
#60	0.25	18		
#100	0.15	27		
#120	0.12	29		
#200	0.075	39		
#230	0.063	45		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0337	62		
---	0.0219	72		
---	0.0127	74		
---	0.0091	78		
---	0.0065	84		
---	0.0046	86		
---	0.0033	88		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.2959 mm	D ₃₀ = 0.0238 mm
D ₆₀ = 0.0734 mm	D ₁₅ = 0.0054 mm
D ₅₀ = 0.0515 mm	D ₁₀ = 0.0024 mm
C _u = 30.583	C _c = 3.215

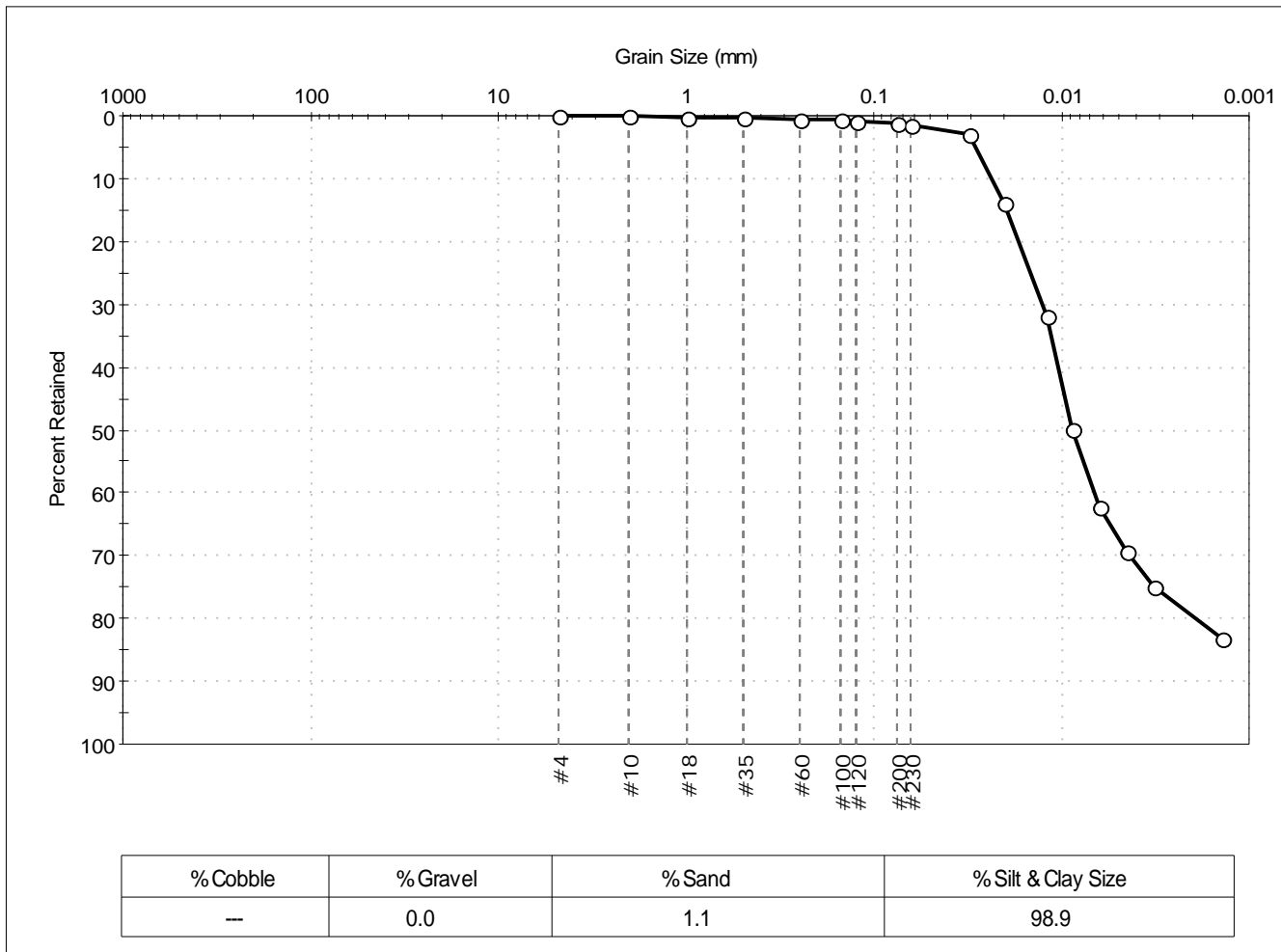
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	138-14LTM	Sample Type:	bag
Sample ID:	NBH14-0220	Test Date:	11/18/14
Depth:	---	Test Id:	310218
Test Comment:	---		
Sample Description:	Wet, very dark olive gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	1		
#230	0.063	1		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0310	3		
---	0.0200	14		
---	0.0119	32		
---	0.0087	50		
---	0.0063	62		
---	0.0045	69		
---	0.0032	75		
---	0.0014	83		

<u>Coefficients</u>	
D ₈₅ = 0.0193 mm	D ₃₀ = 0.0043 mm
D ₆₀ = 0.0103 mm	D ₁₅ = N/A
D ₅₀ = 0.0086 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

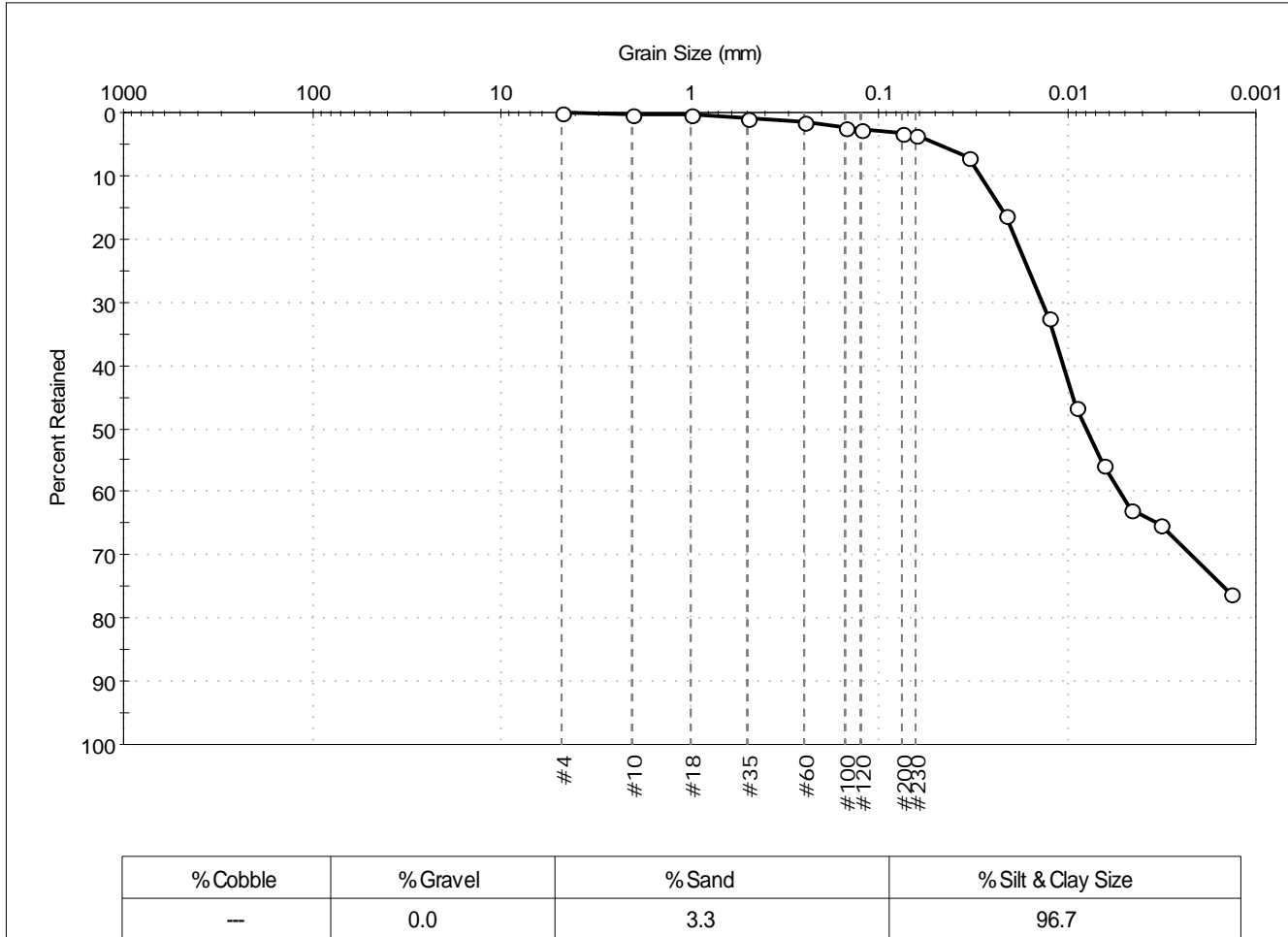
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 138-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0221	Test Date: 11/18/14	Test Id: 310219	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	3		
#200	0.075	3		
#230	0.063	4		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0330	7		
---	0.0211	16		
---	0.0125	33		
---	0.0090	47		
---	0.0064	56		
---	0.0046	63		
---	0.0032	65		
---	0.0014	76		

<u>Coefficients</u>	
D ₈₅ = 0.0225 mm	D ₃₀ = 0.0022 mm
D ₆₀ = 0.0105 mm	D ₁₅ = N/A
D ₅₀ = 0.0079 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

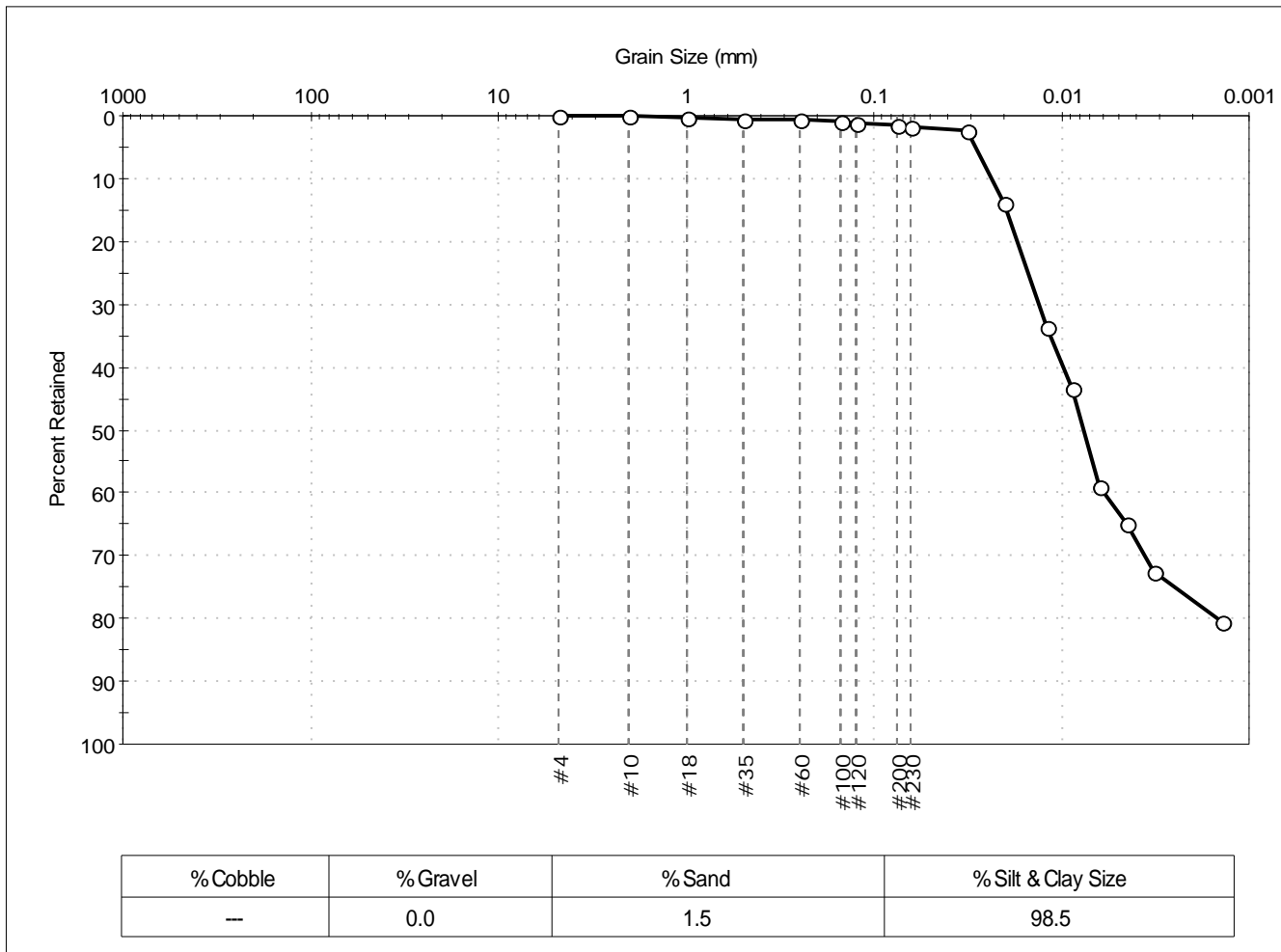
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 138-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0222	Test Date: 11/12/14	Depth: ---	Test Id: 310220
Test Comment: ---			
Sample Description: Wet, dark grayish brown silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	2		
#230	0.063	2		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0315	2		
---	0.0203	14		
---	0.0120	34		
---	0.0087	43		
---	0.0063	59		
---	0.0045	65		
---	0.0032	73		
---	0.0014	80		

<u>Coefficients</u>	
D ₈₅ = 0.0198 mm	D ₃₀ = 0.0036 mm
D ₆₀ = 0.0097 mm	D ₁₅ = N/A
D ₅₀ = 0.0076 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

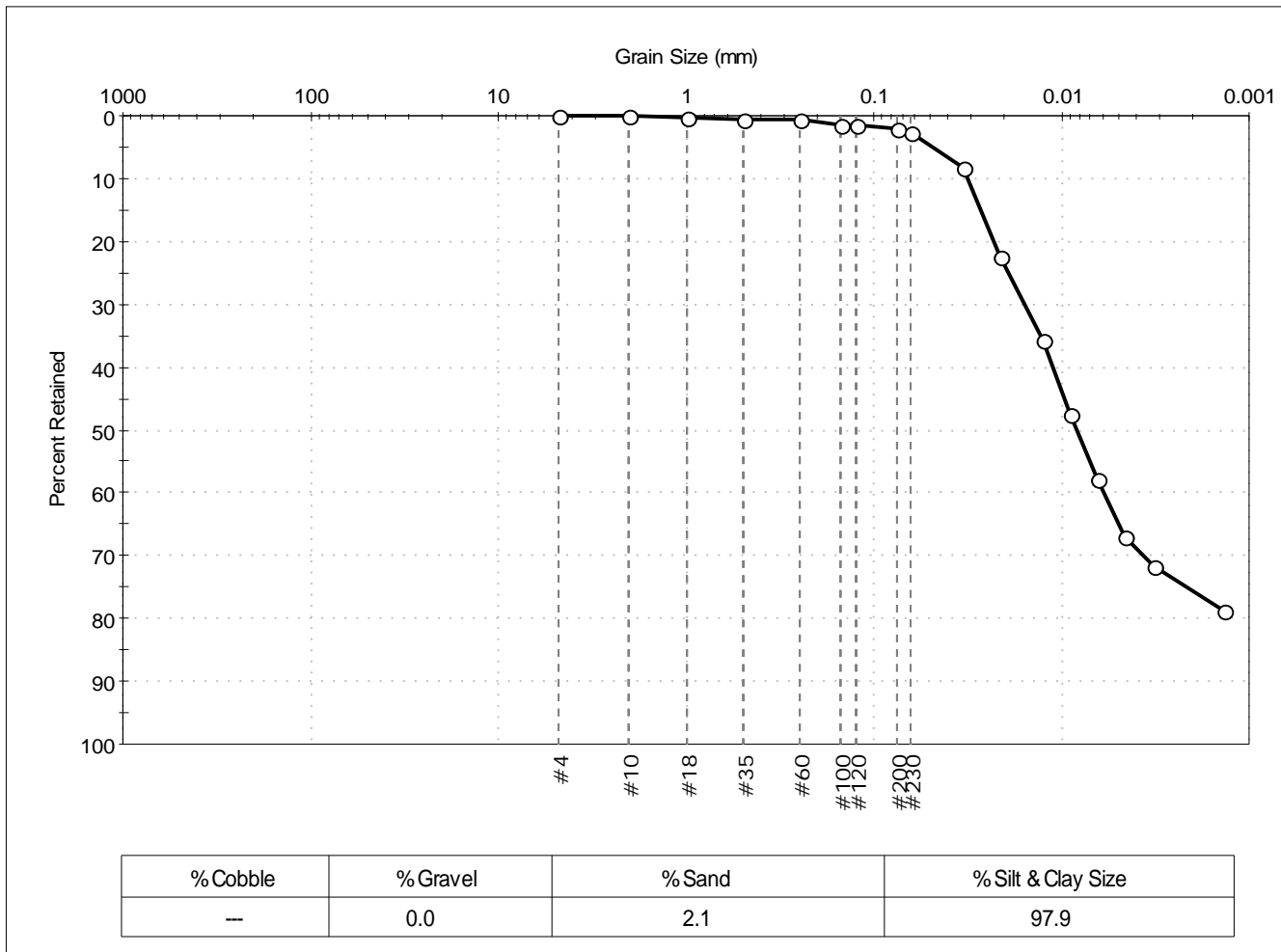
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 138-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0223
 Test Date: 11/18/14
 Checked By: jdt
 Depth: ---
 Test Id: 310221
 Test Comment: ---
 Sample Description: Wet, very dark gray silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	2		
#200	0.075	2		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0330	8		
---	0.0211	22		
---	0.0125	36		
---	0.0090	48		
---	0.0064	58		
---	0.0046	67		
---	0.0033	72		
---	0.0014	79		

<u>Coefficients</u>	
D ₈₅ = 0.0267 mm	D ₃₀ = 0.0037 mm
D ₆₀ = 0.0111 mm	D ₁₅ = N/A
D ₅₀ = 0.0083 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

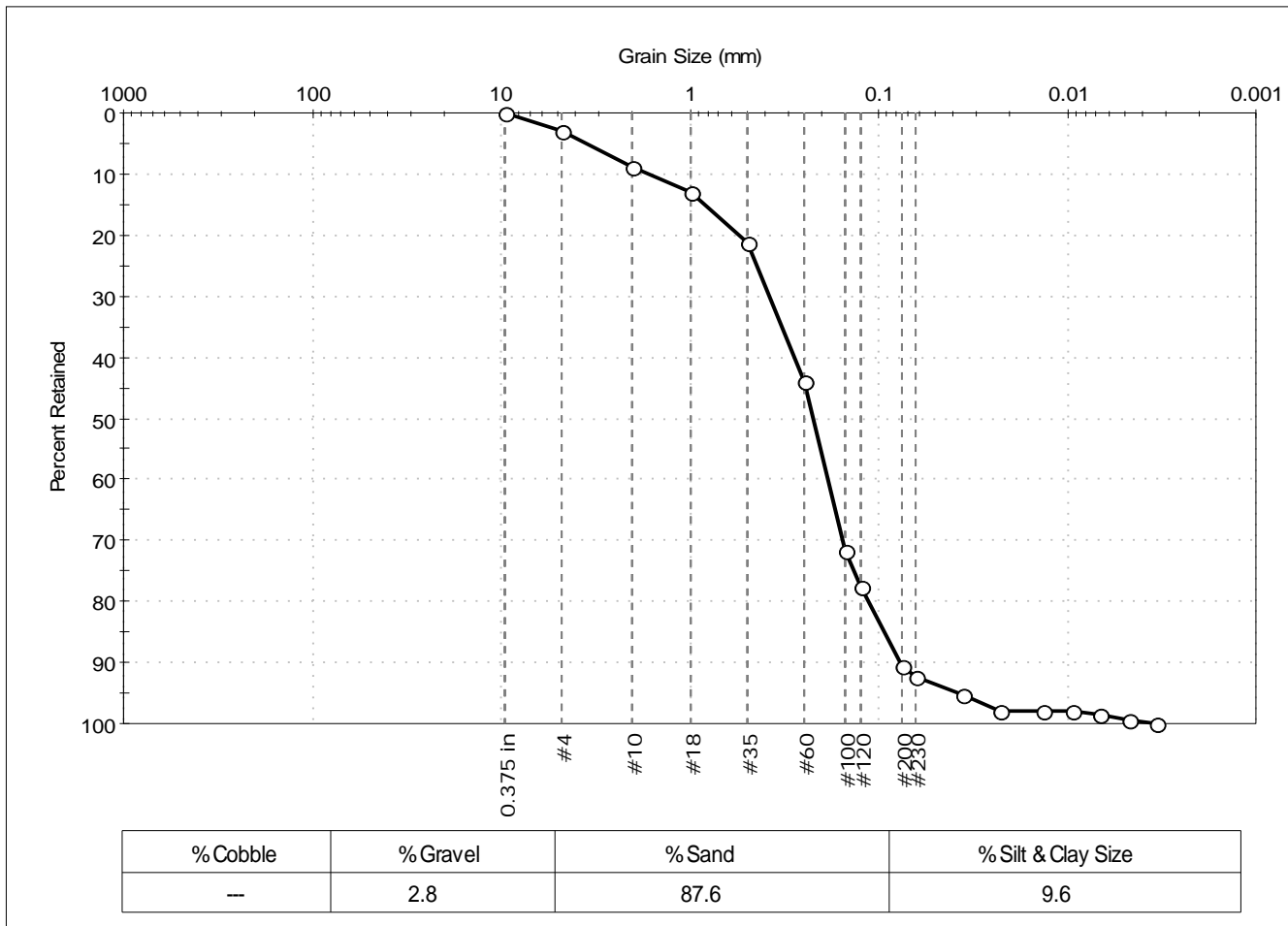
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 126-14LTM	Sample Type: bag
Sample ID: NBH14-0224	Test Date: 11/17/14
Depth: ---	Test Id: 310222
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark olive gray sand with silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	9		
#18	1.00	13		
#35	0.50	21		
#60	0.25	44		
#100	0.15	72		
#120	0.12	78		
#200	0.075	90.4		
#230	0.063	92		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0361	95		
---	0.0230	98		
---	0.0133	98		
---	0.0094	98		
---	0.0067	99		
---	0.0047	99		
---	0.0034	100		
---	0.0015	100		

<u>Coefficients</u>	
D ₈₅ = 0.8472 mm	D ₃₀ = 0.1545 mm
D ₆₀ = 0.2824 mm	D ₁₅ = 0.0932 mm
D ₅₀ = 0.2236 mm	D ₁₀ = 0.0763 mm
C _u = 3.701	C _c = 1.108

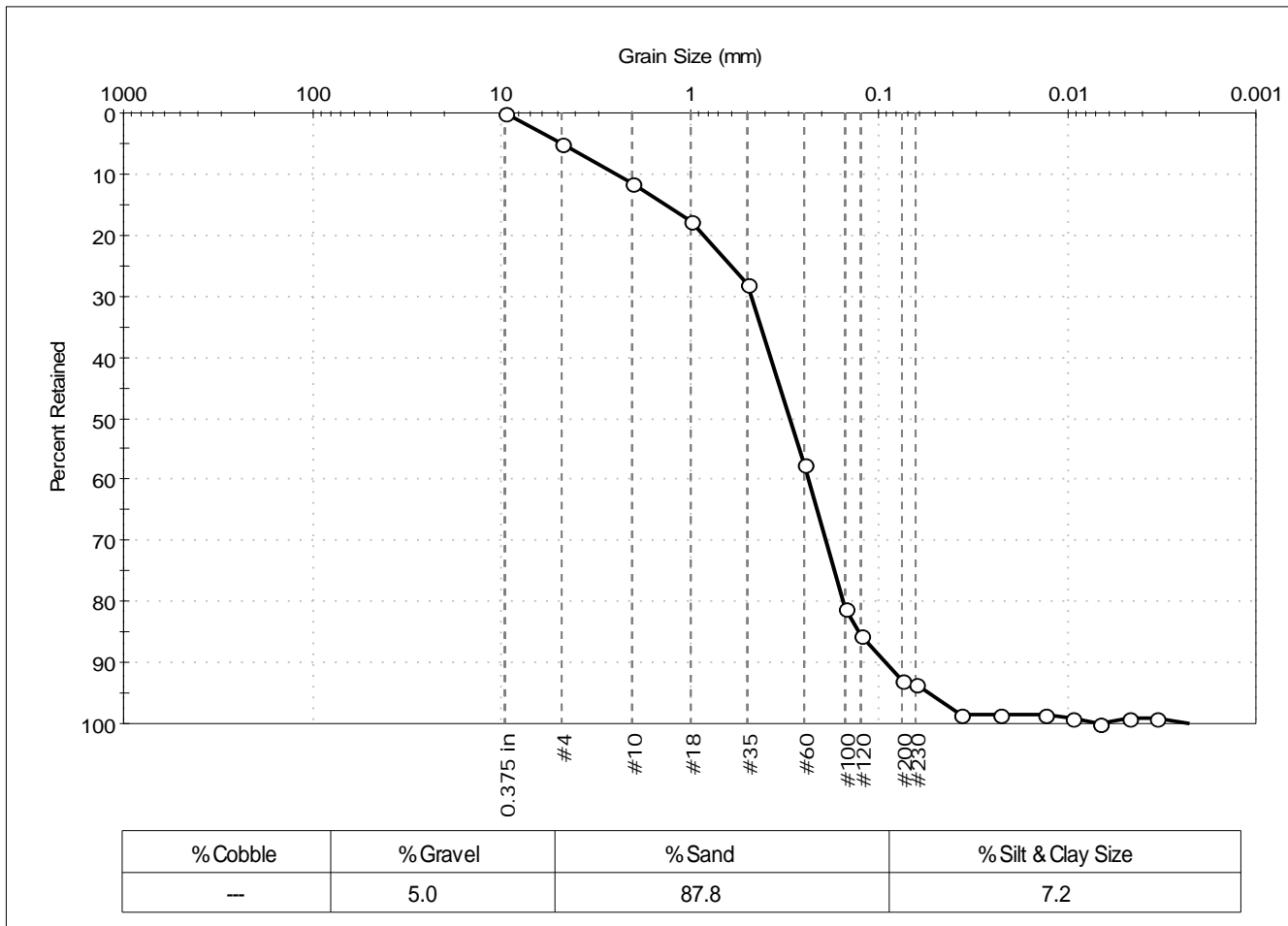
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 126-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0225	Test Date: 11/12/14	Test Id: 310223	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark olive gray sand with silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	5		
#10	2.00	11		
#18	1.00	18		
#35	0.50	28		
#60	0.25	57		
#100	0.15	81		
#120	0.12	85		
#200	0.075	92.8		
#230	0.063	94		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0366	99		
---	0.0228	99		
---	0.0133	99		
---	0.0095	99		
---	0.0067	100		
---	0.0047	99		
---	0.0033	99		
---	0.0015	101		

<u>Coefficients</u>	
D ₈₅ = 1.3342 mm	D ₃₀ = 0.1908 mm
D ₆₀ = 0.3768 mm	D ₁₅ = 0.1273 mm
D ₅₀ = 0.2979 mm	D ₁₀ = 0.0910 mm
C _u = 4.141	C _c = 1.062

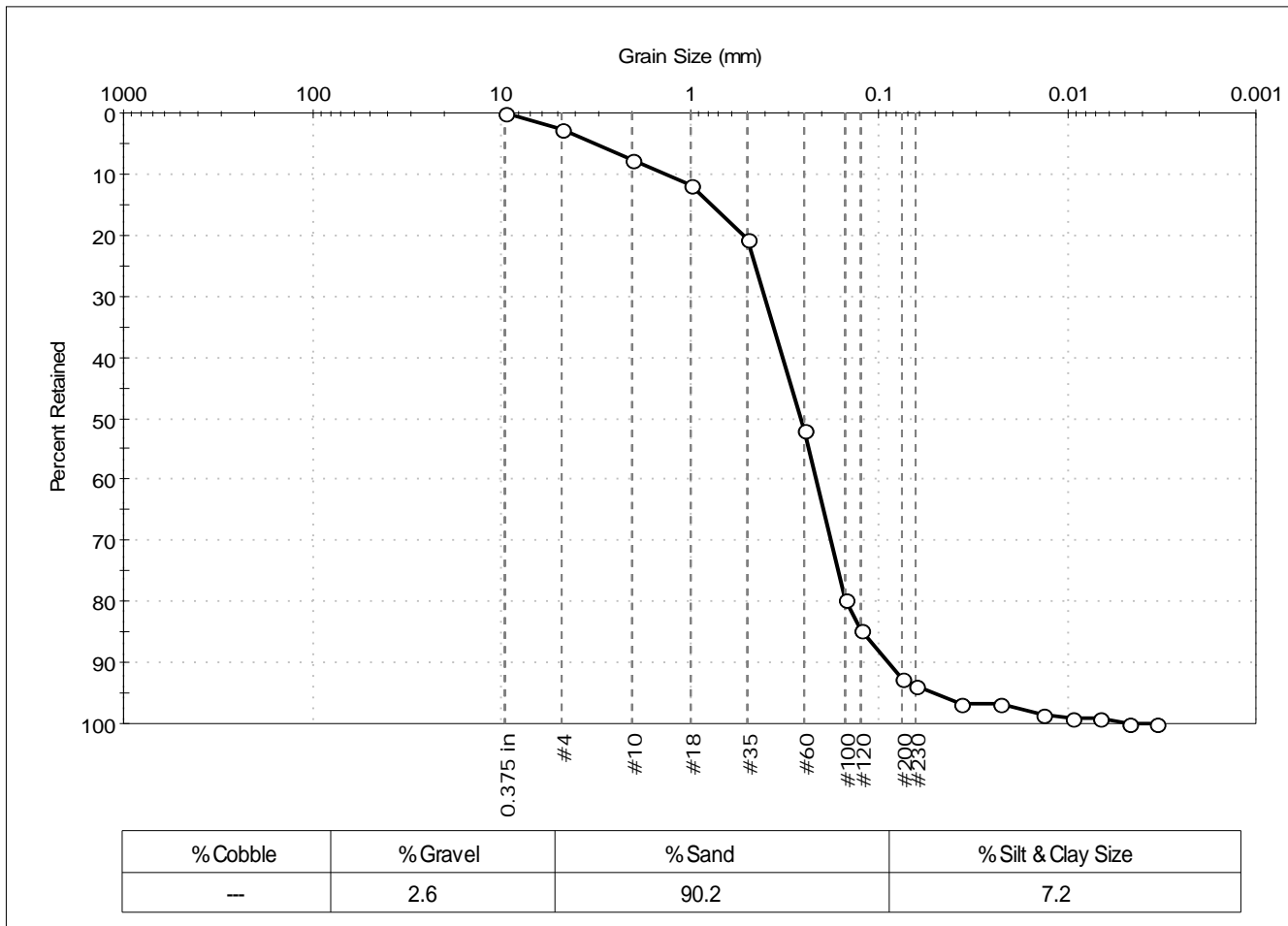
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 126-14LTM	Sample Type: bag
Sample ID: NBH14-0226	Test Date: 11/14/14
Depth: ---	Test Id: 310224
Test Comment: ---	Tested By: jbr
Sample Description: Moist, dark olive gray sand with silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	8		
#18	1.00	12		
#35	0.50	21		
#60	0.25	52		
#100	0.15	80		
#120	0.12	85		
#200	0.075	92.8		
#230	0.063	94		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0364	97		
---	0.0230	97		
---	0.0134	98		
---	0.0095	99		
---	0.0067	99		
---	0.0048	100		
---	0.0034	100		
---	0.0015	101		

<u>Coefficients</u>	
D ₈₅ = 0.7797 mm	D ₃₀ = 0.1790 mm
D ₆₀ = 0.3261 mm	D ₁₅ = 0.1222 mm
D ₅₀ = 0.2612 mm	D ₁₀ = 0.0892 mm
C _u = 3.656	C _c = 1.102

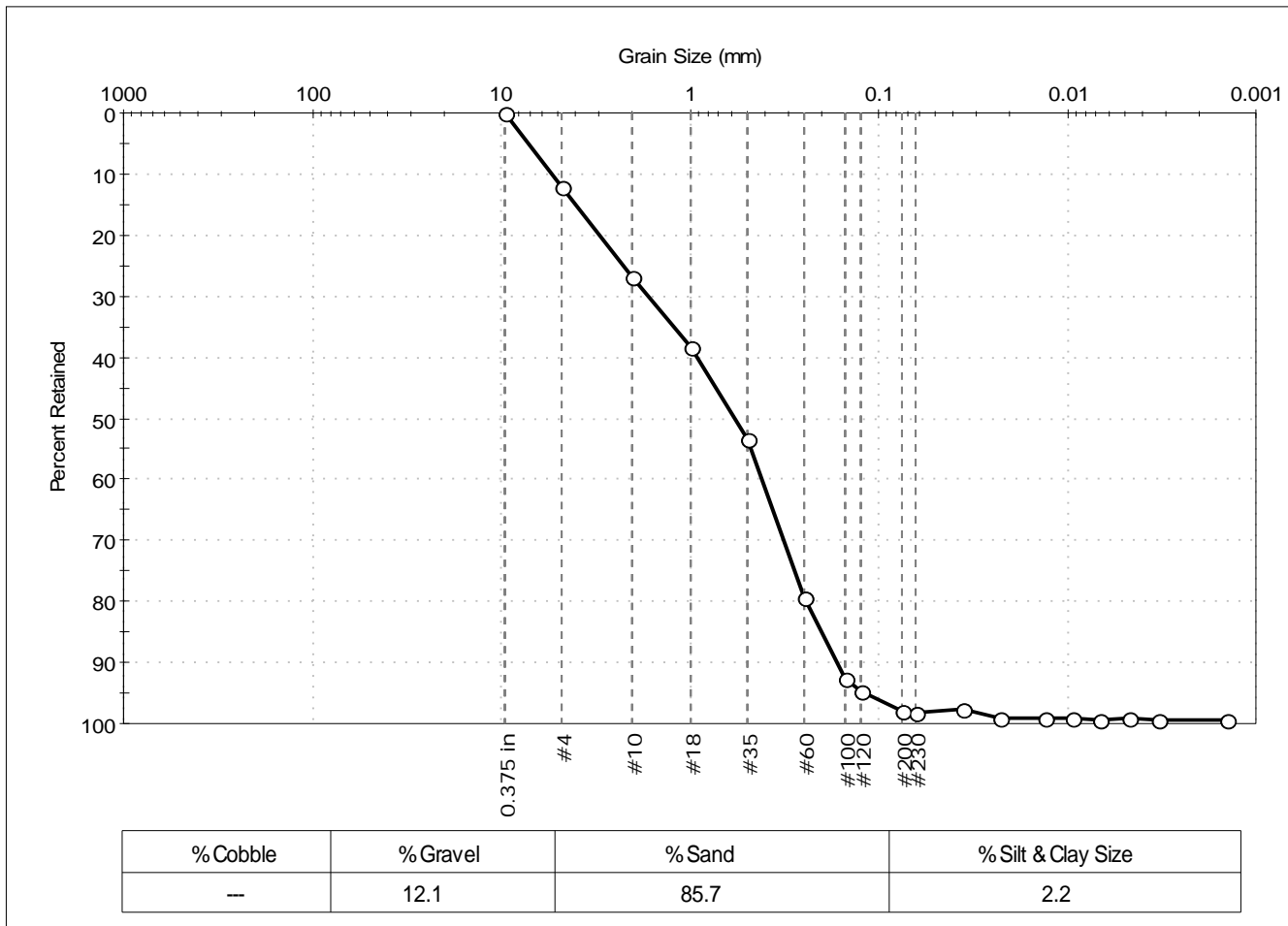
<u>Classification</u>	
ASTM	N/A
AASHTO Stone Fragments, Gravel and Sand (A-1-b (1))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 126-14LTM	Sample Type: bag
Sample ID: NBH14-0227	Test Date: 11/17/14
Depth: ---	Test Id: 310225
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark olive gray sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	12		
#10	2.00	27		
#18	1.00	38		
#35	0.50	54		
#60	0.25	79		
#100	0.15	93		
#120	0.12	95		
#200	0.075	97.8		
#230	0.063	98		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0360	98		
---	0.0230	99		
---	0.0133	99		
---	0.0094	99		
---	0.0067	99		
---	0.0047	99		
---	0.0033	99		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 4.0033 mm	D ₃₀ = 0.3214 mm
D ₆₀ = 0.9226 mm	D ₁₅ = 0.2013 mm
D ₅₀ = 0.5867 mm	D ₁₀ = 0.1662 mm
C _u = 5.551	C _c = 0.674

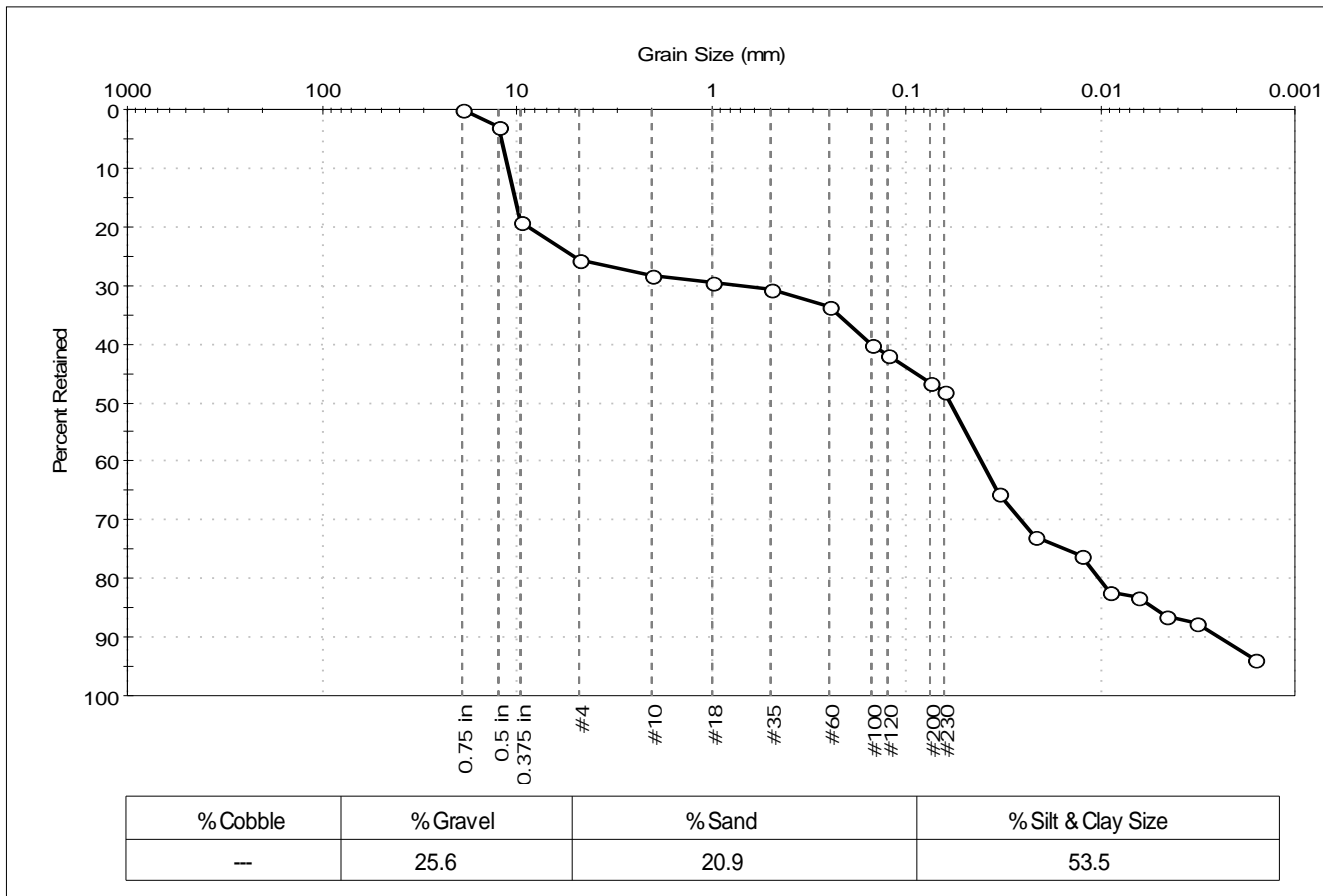
<u>Classification</u>	
<u>ASTM</u>	Poorly graded sand (SP)
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ROUNDED	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 108-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0228	Test Date: 11/17/14	Checked By: jdt	
Depth: ---	Test Id: 310226		
Test Comment: ---			
Sample Description: Moist, very dark olive gray gravelly silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	3		
0.375 in	9.50	19		
#4	4.75	26		
#10	2.00	28		
#18	1.00	29		
#35	0.50	31		
#60	0.25	34		
#100	0.15	40		
#120	0.12	42		
#200	0.075	46		
#230	0.063	48		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0332	66		
---	0.0216	73		
---	0.0126	76		
---	0.0090	82		
---	0.0064	83		
---	0.0046	86		
---	0.0032	87		
---	0.0016	94		

<u>Coefficients</u>	
D ₈₅ = 10.2068 mm	D ₃₀ = 0.0256 mm
D ₆₀ = 0.1514 mm	D ₁₅ = 0.0053 mm
D ₅₀ = 0.0588 mm	D ₁₀ = 0.0024 mm
C _u = 63.083	C _c = 1.804

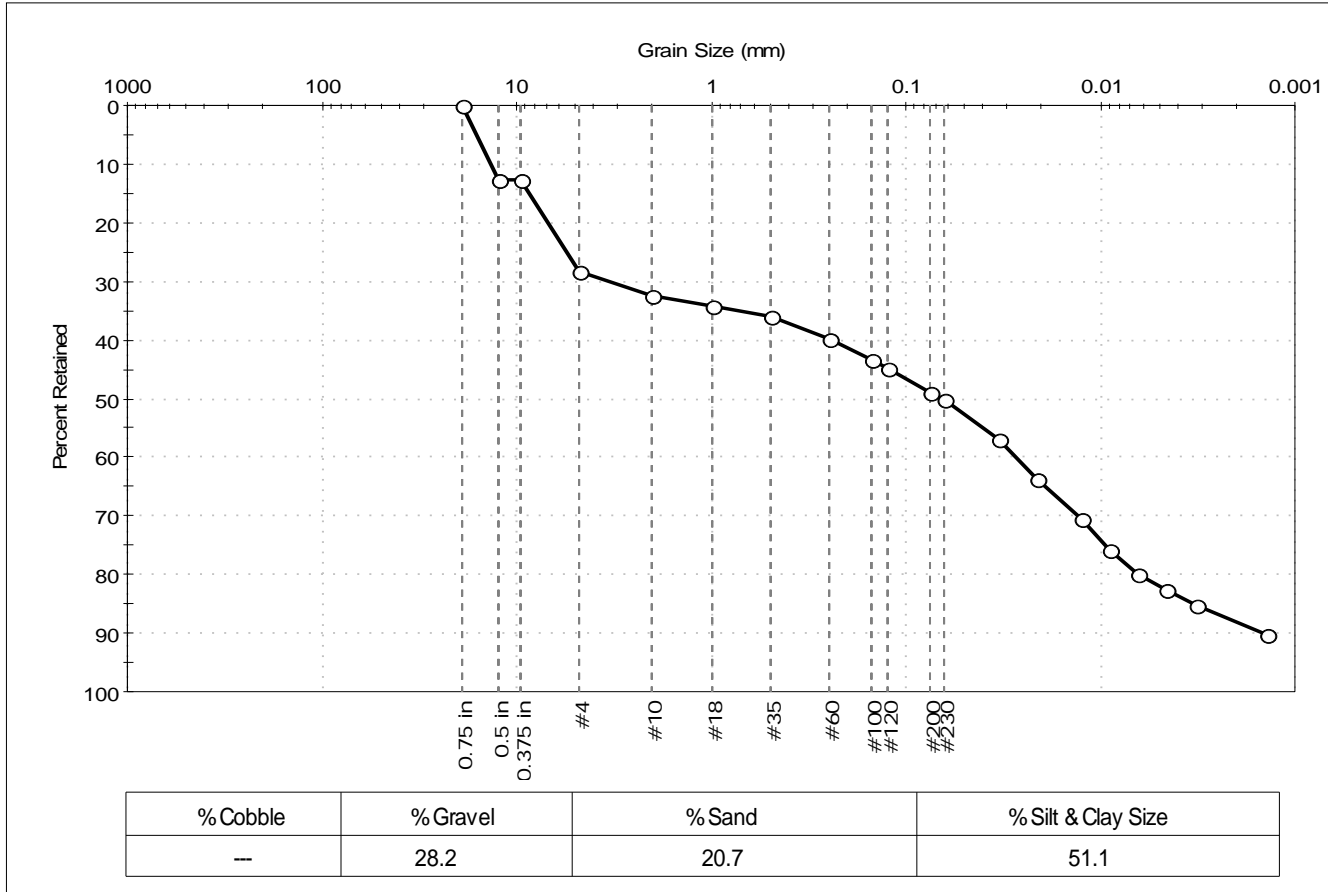
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 108-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0229	Test Date: 11/18/14	Checked By: jdt	
Depth: ---	Test Id: 310227		
Test Comment: ---			
Sample Description: Moist, very dark gray gravelly silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	13		
0.375 in	9.50	13		
#4	4.75	28		
#10	2.00	32		
#18	1.00	34		
#35	0.50	36		
#60	0.25	40		
#100	0.15	43		
#120	0.12	45		
#200	0.075	49		
#230	0.063	50		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0332	57		
---	0.0214	64		
---	0.0126	70		
---	0.0090	76		
---	0.0064	80		
---	0.0046	83		
---	0.0032	85		
---	0.0014	90		

Coefficients

D ₈₅ = 8.5312 mm	D ₃₀ = 0.0130 mm
D ₆₀ = 0.2417 mm	D ₁₅ = 0.0033 mm
D ₅₀ = 0.0652 mm	D ₁₀ = 0.0014 mm
C _u = 172.643	C _c = 0.499

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

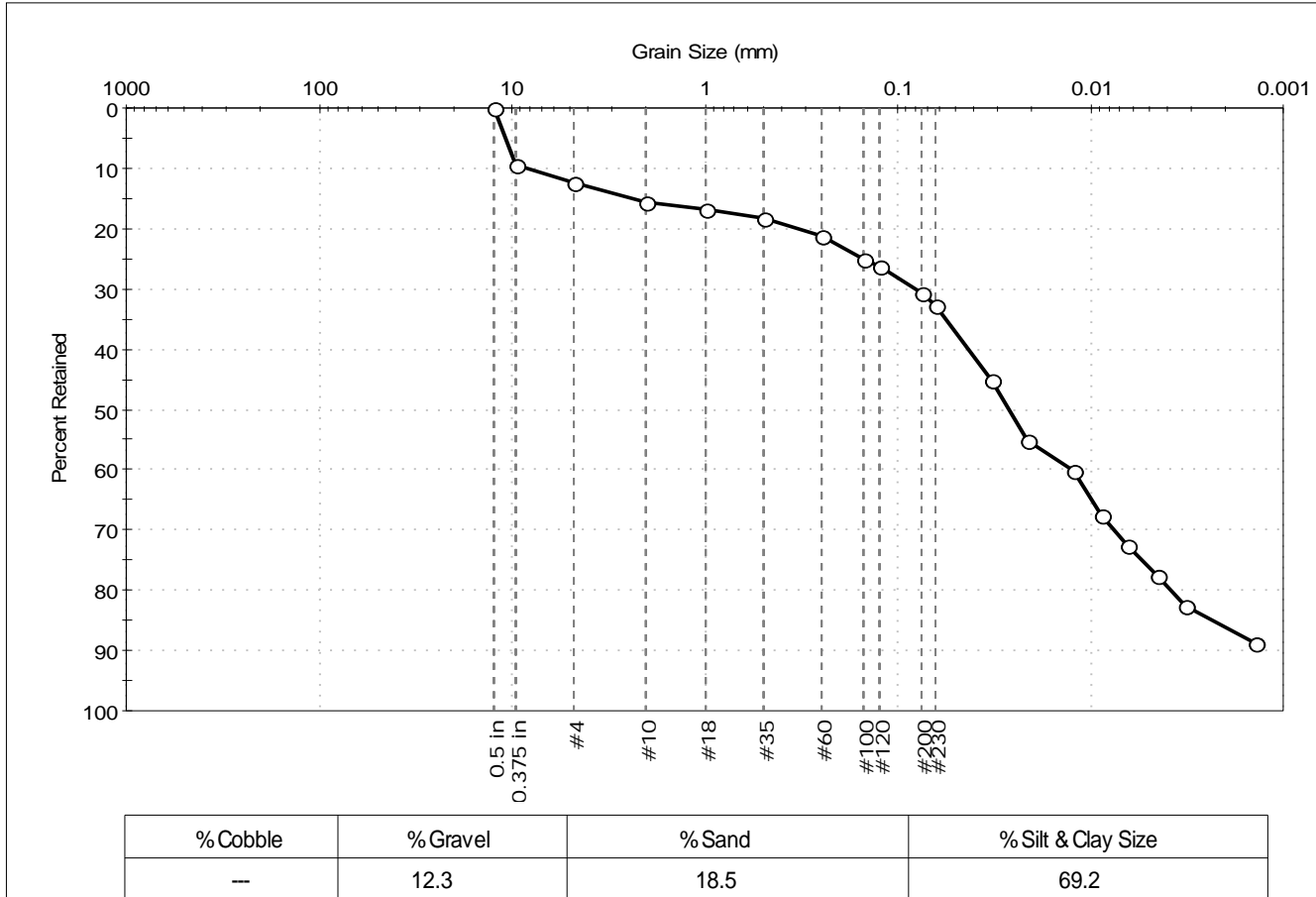
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 108-14LTM	Sample Type: bag
Sample ID: NBH14-0230	Test Date: 11/17/14
Depth: ---	Test Id: 310228
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dark olive gray snady silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	10		
#4	4.75	12		
#10	2.00	16		
#18	1.00	17		
#35	0.50	18		
#60	0.25	21		
#100	0.15	25		
#120	0.12	26		
#200	0.075	31		
#230	0.063	33		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	45		
---	0.0211	55		
---	0.0123	60		
---	0.0089	68		
---	0.0064	73		
---	0.0045	78		
---	0.0032	83		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 2.3725 mm	D ₃₀ = 0.0076 mm
D ₆₀ = 0.0427 mm	D ₁₅ = 0.0023 mm
D ₅₀ = 0.0263 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

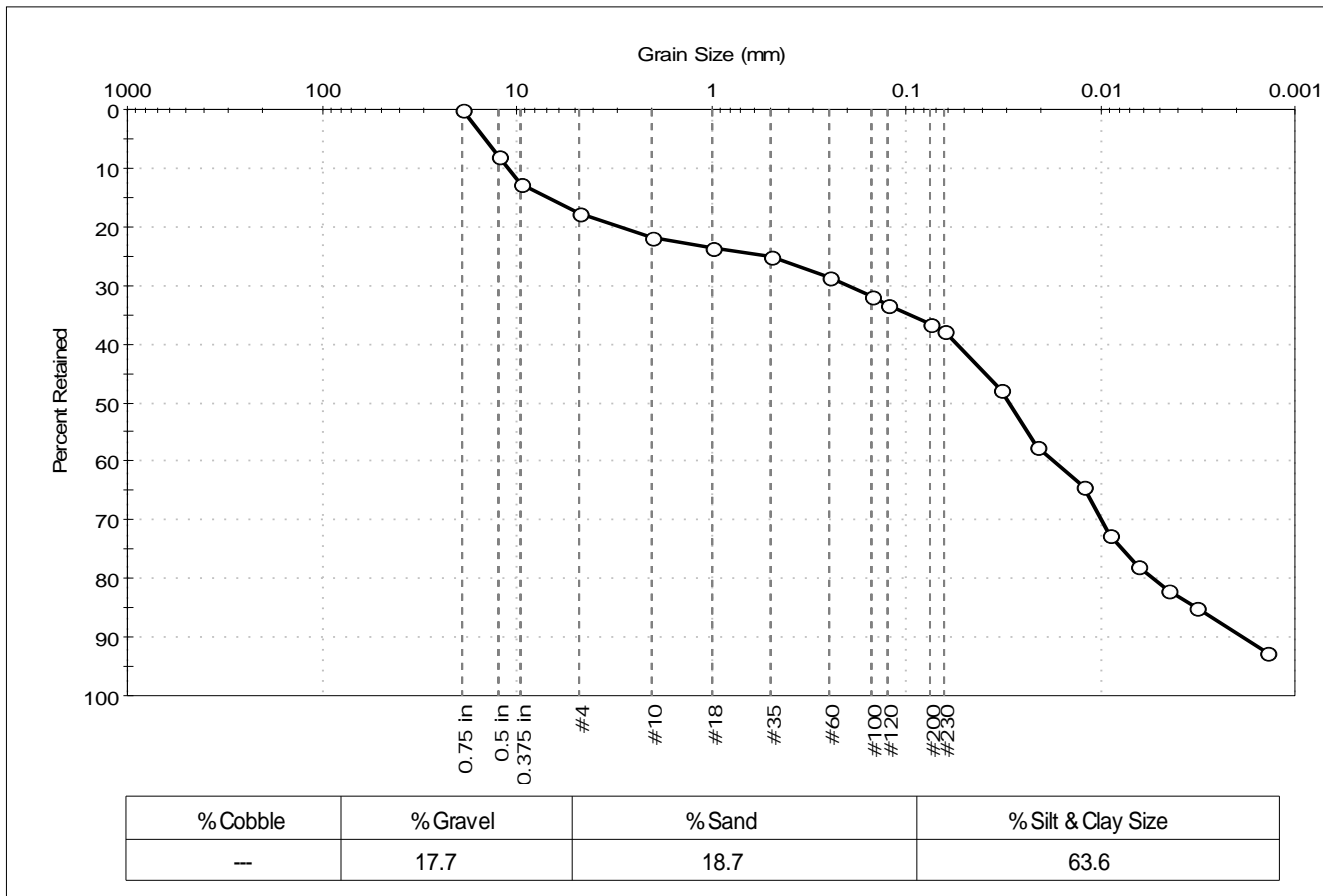
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 108-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0231	Test Date: 11/18/14	Checked By: jdt	
Depth: ---	Test Id: 310229		
Test Comment: ---			
Sample Description: Wet, very dark gray sandy silt with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	8		
0.375 in	9.50	13		
#4	4.75	18		
#10	2.00	22		
#18	1.00	24		
#35	0.50	25		
#60	0.25	29		
#100	0.15	32		
#120	0.12	33		
#200	0.075	36		
#230	0.063	38		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0327	48		
---	0.0212	57		
---	0.0123	64		
---	0.0089	73		
---	0.0064	78		
---	0.0045	82		
---	0.0032	85		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 6.8533 mm	D ₃₀ = 0.0099 mm
D ₆₀ = 0.0546 mm	D ₁₅ = 0.0032 mm
D ₅₀ = 0.0296 mm	D ₁₀ = 0.0019 mm
C _u = 28.737	C _c = 0.945

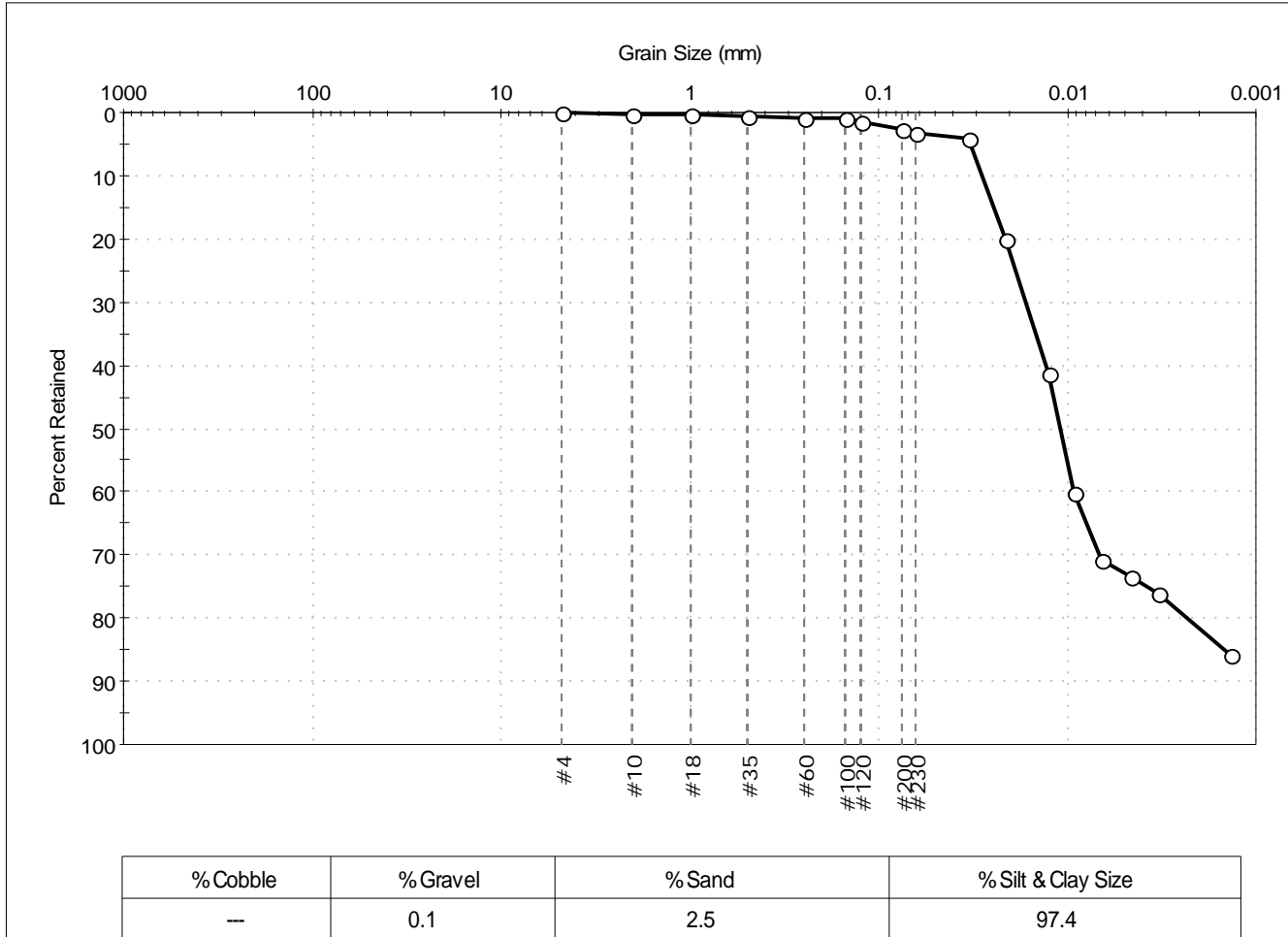
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 231-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0235	Test Date: 11/12/14	Test Id: 310193	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	3		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0331	4		
---	0.0214	20		
---	0.0126	41		
---	0.0091	60		
---	0.0065	71		
---	0.0047	73		
---	0.0033	76		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.0246 mm	D ₃₀ = 0.0067 mm
D ₆₀ = 0.0131 mm	D ₁₅ = 0.0015 mm
D ₅₀ = 0.0109 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

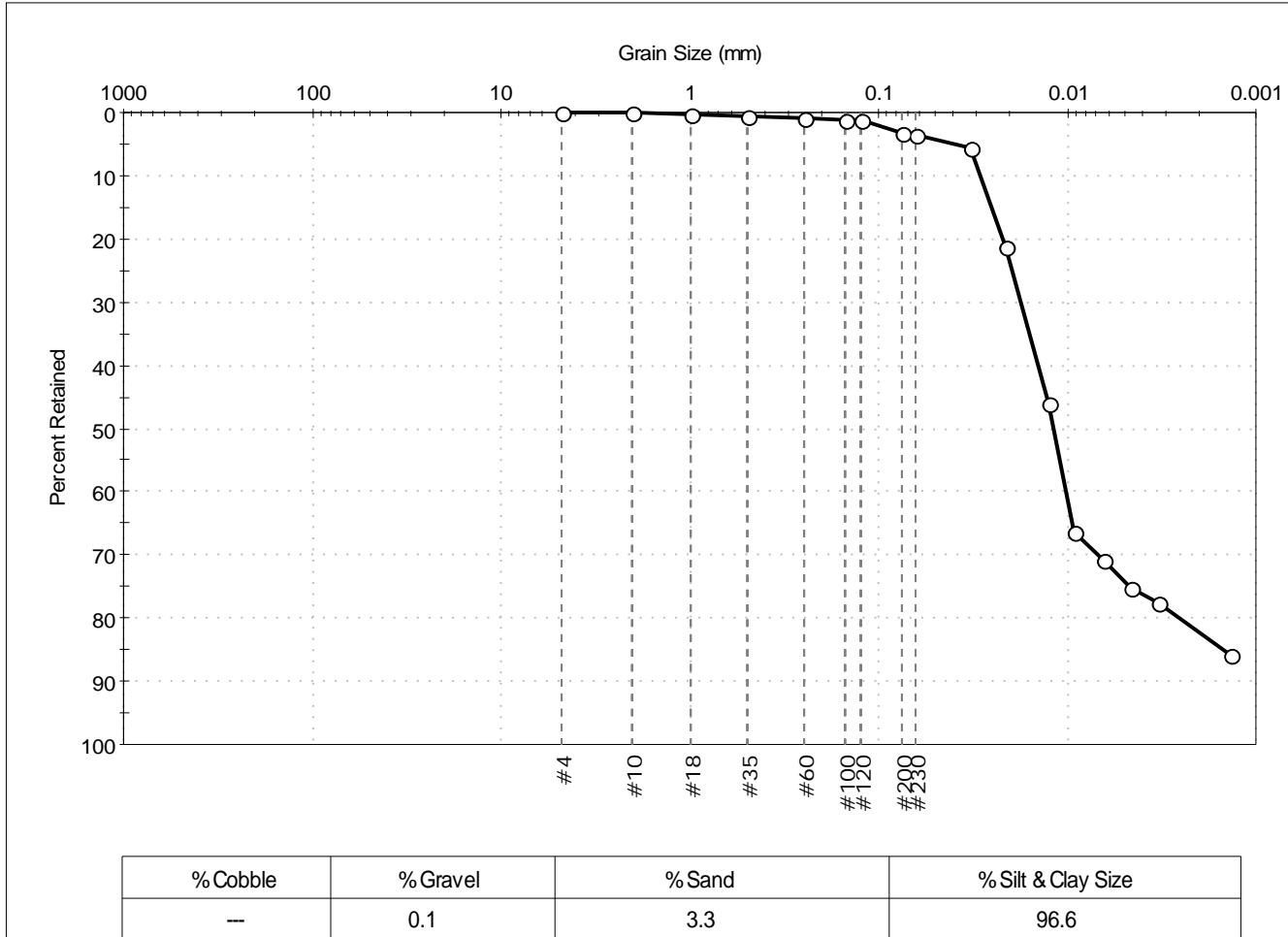
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	231-14LTM	Sample Type:	bag
Sample ID:	NBH14-0236	Test Date:	11/12/14
Depth:	---	Test Id:	310194
Test Comment:	---		
Sample Description:	Wet, dark olive gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	1		
#120	0.12	1		
#200	0.075	3		
#230	0.063	3		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	6		
---	0.0210	21		
---	0.0126	46		
---	0.0091	66		
---	0.0065	71		
---	0.0046	75		
---	0.0033	78		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.0250 mm	D ₃₀ = 0.0069 mm
D ₆₀ = 0.0142 mm	D ₁₅ = 0.0015 mm
D ₅₀ = 0.0118 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

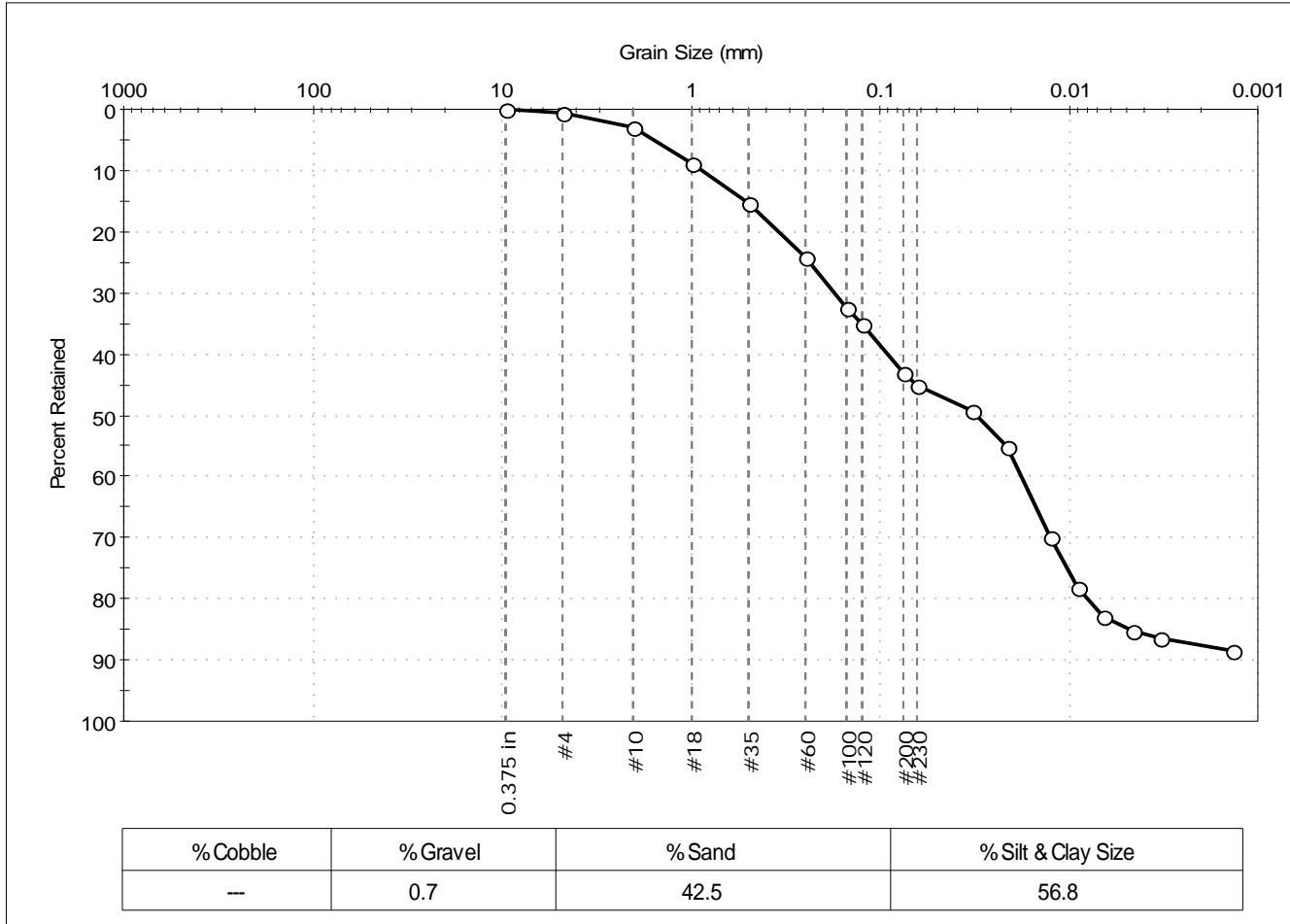
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	222-14LTM	Sample Type:	bag
Sample ID:	NBH14-0237	Test Date:	11/18/14
Depth:	---	Test Id:	310459
Test Comment:	---		
Sample Description:	Wet, very dark grayish brown sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	9		
#35	0.50	15		
#60	0.25	24		
#100	0.15	33		
#120	0.12	35		
#200	0.075	43		
#230	0.063	45		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	49		
---	0.0210	55		
---	0.0126	70		
---	0.0091	78		
---	0.0065	83		
---	0.0046	85		
---	0.0033	86		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.5248 mm	D ₃₀ = 0.0126 mm
D ₆₀ = 0.0914 mm	D ₁₅ = 0.0047 mm
D ₅₀ = 0.0309 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

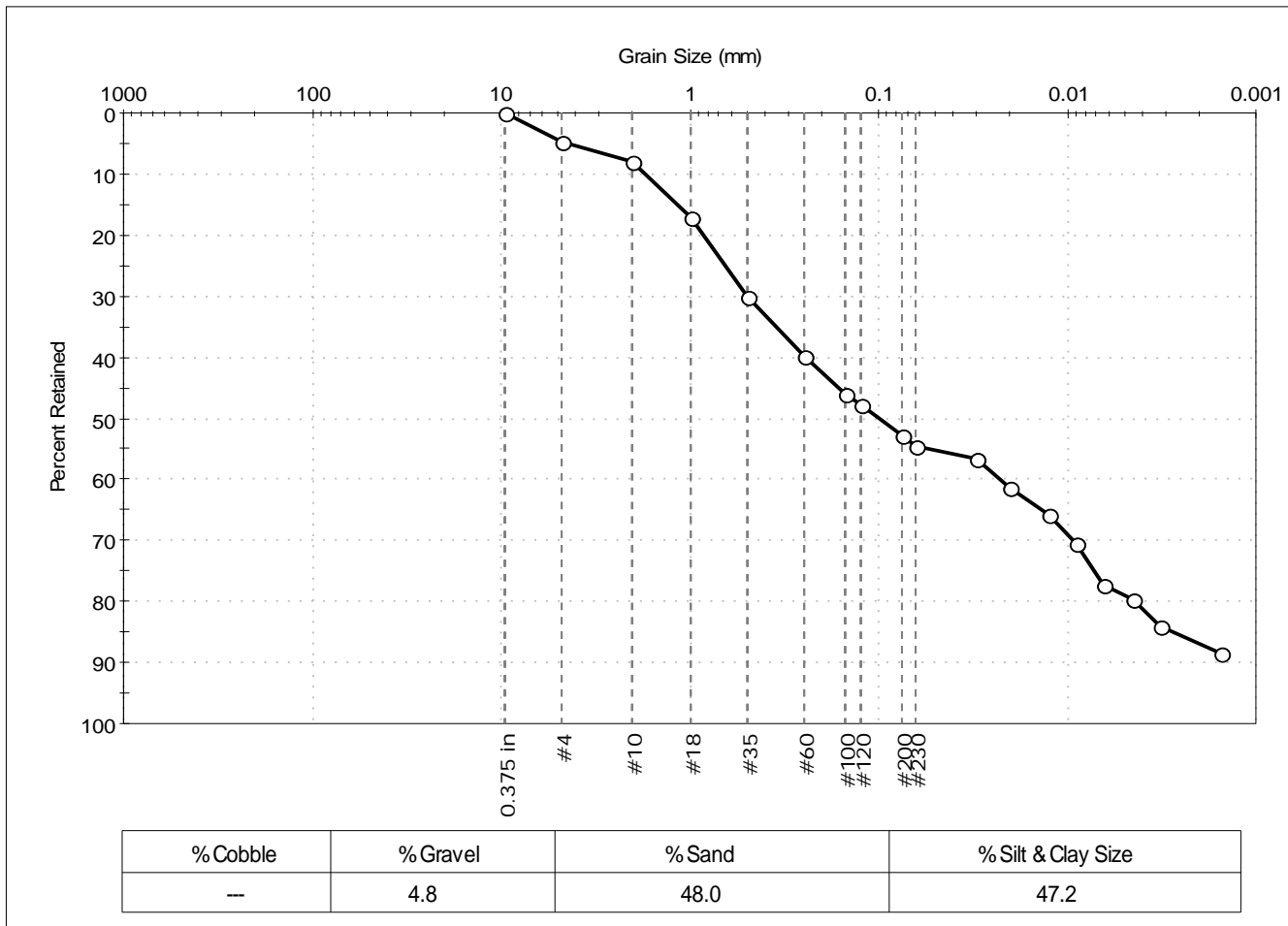
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 222-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0238
 Test Date: 11/03/14
 Checked By: jdt
 Depth: ---
 Test Id: 310542
 Test Comment: ---
 Sample Description: Wet, dark gray silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	5		
#10	2.00	8		
#18	1.00	17		
#35	0.50	30		
#60	0.25	40		
#100	0.15	46		
#120	0.12	48		
#200	0.075	53		
#230	0.063	55		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0304	57		
---	0.0204	61		
---	0.0124	66		
---	0.0089	70		
---	0.0064	77		
---	0.0046	80		
---	0.0032	84		
---	0.0015	89		

<u>Coefficients</u>	
D ₈₅ = 1.1746 mm	D ₃₀ = 0.0091 mm
D ₆₀ = 0.2493 mm	D ₁₅ = 0.0027 mm
D ₅₀ = 0.0990 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

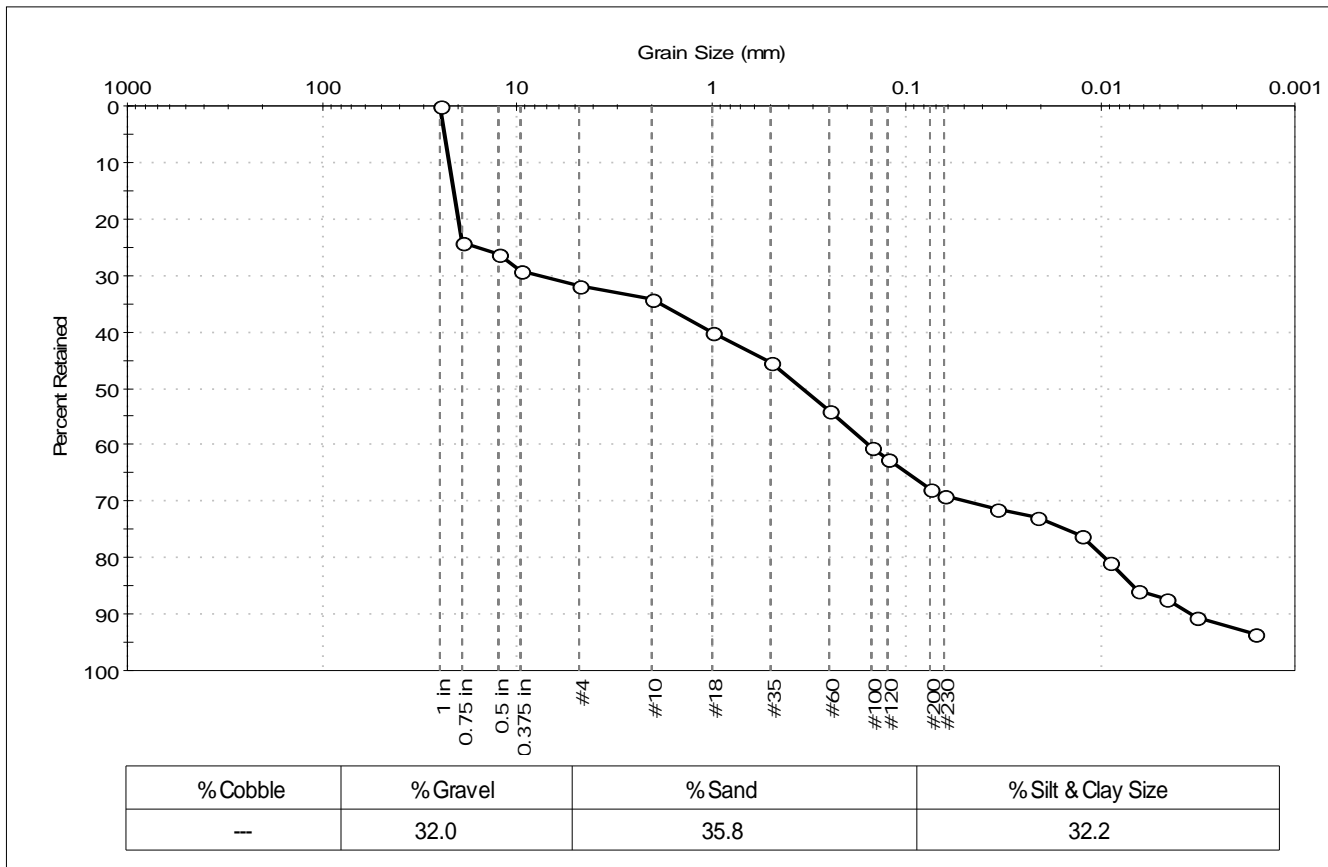
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 222-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0239
 Test Date: 11/03/14
 Checked By: jdt
 Depth: ---
 Test Id: 310543
 Test Comment: ---
 Sample Description: Wet, dark olive gray silty sand with gravel
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
1 in	25.00	0		
0.75 in	19.00	24		
0.5 in	12.50	26		
0.375 in	9.50	29		
#4	4.75	32		
#10	2.00	34		
#18	1.00	40		
#35	0.50	45		
#60	0.25	54		
#100	0.15	60		
#120	0.12	62		
#200	0.075	68		
#230	0.063	69		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0340	71		
---	0.0213	73		
---	0.0124	76		
---	0.0089	81		
---	0.0064	86		
---	0.0046	87		
---	0.0032	90		
---	0.0016	94		

Coefficients

D ₈₅ = 21.0691 mm	D ₃₀ = 0.0483 mm
D ₆₀ = 1.0145 mm	D ₁₅ = 0.0068 mm
D ₅₀ = 0.3454 mm	D ₁₀ = 0.0034 mm
C _u = 298.382	C _c = 0.676

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

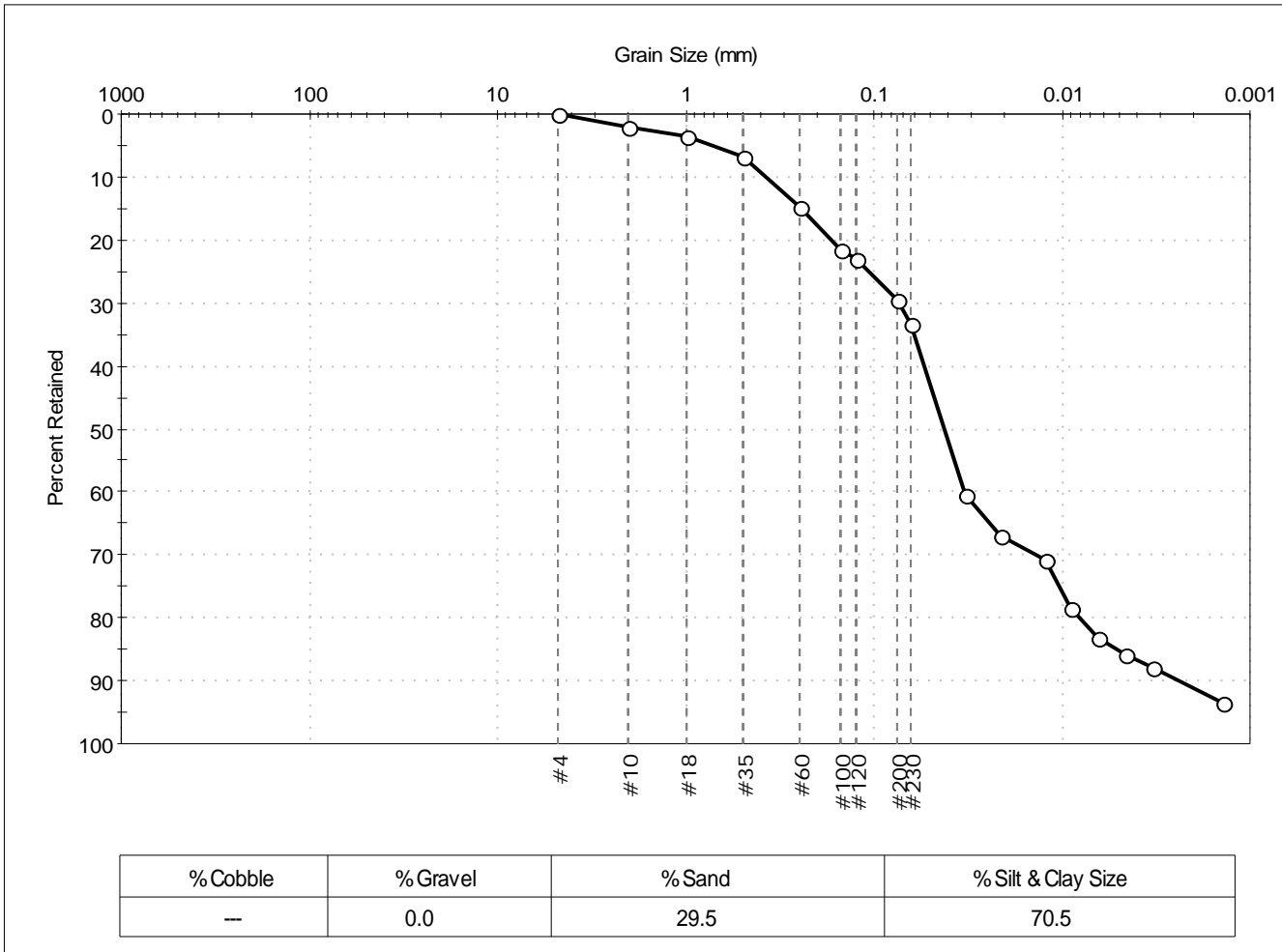
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 222-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0240
 Test Date: 10/30/14
 Checked By: jdt
 Depth: ---
 Test Id: 310544
 Test Comment: ---
 Sample Description: Wet, olive brown silt with sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	3		
#35	0.50	7		
#60	0.25	15		
#100	0.15	21		
#120	0.12	23		
#200	0.075	29		
#230	0.063	33		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	60		
---	0.0212	67		
---	0.0124	71		
---	0.0090	78		
---	0.0064	83		
---	0.0046	86		
---	0.0033	88		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.2446 mm	D ₃₀ = 0.0139 mm
D ₆₀ = 0.0536 mm	D ₁₅ = 0.0051 mm
D ₅₀ = 0.0420 mm	D ₁₀ = 0.0023 mm
C _u = 23.304	C _c = 1.567

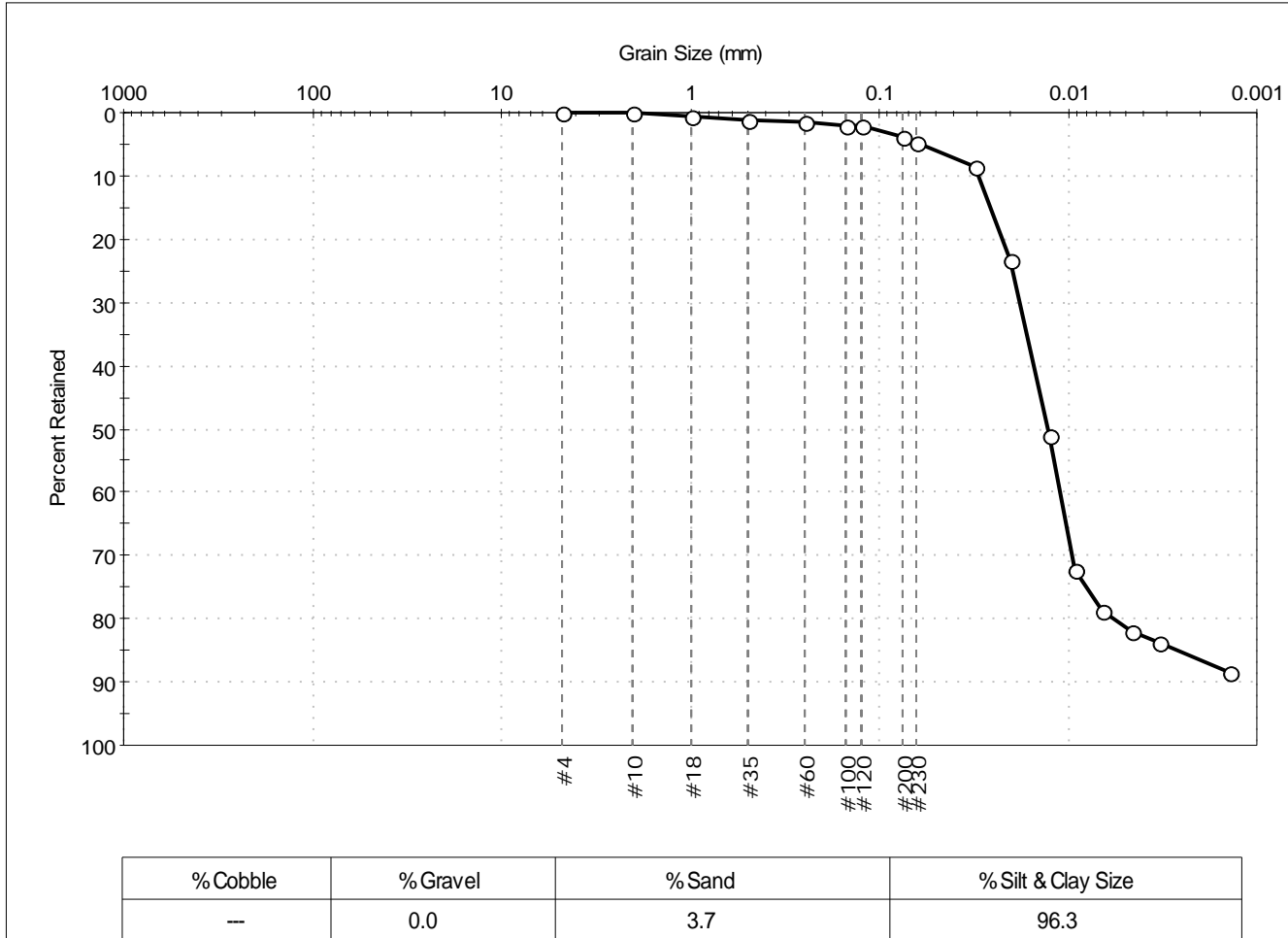
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 224-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0241	Test Date: 11/17/14	Test Id: 310460	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	4		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0311	9		
---	0.0203	23		
---	0.0124	51		
---	0.0091	72		
---	0.0065	79		
---	0.0046	82		
---	0.0033	84		
---	0.0014	89		

Coefficients	
D ₈₅ = 0.0258 mm	D ₃₀ = 0.0094 mm
D ₆₀ = 0.0151 mm	D ₁₅ = 0.0026 mm
D ₅₀ = 0.0126 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

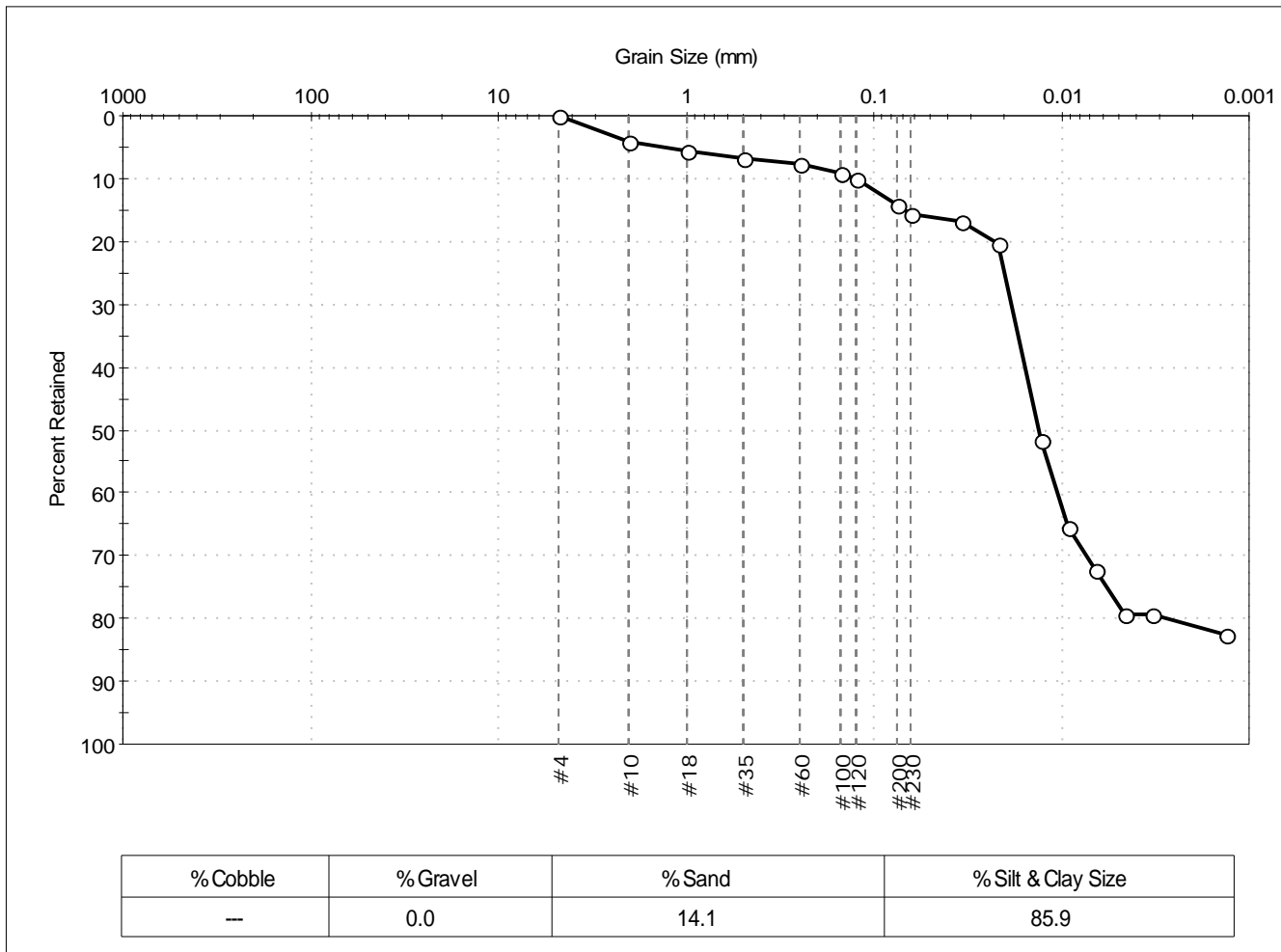
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 224-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0242	Test Date: 10/27/14	Test Id: 310461	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	4		
#18	1.00	5		
#35	0.50	7		
#60	0.25	8		
#100	0.15	9		
#120	0.12	10		
#200	0.075	14		
#230	0.063	16		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0342	17		
---	0.0217	20		
---	0.0128	51		
---	0.0092	65		
---	0.0065	72		
---	0.0047	79		
---	0.0033	79		
---	0.0013	83		

<u>Coefficients</u>	
D ₈₅ = 0.0677 mm	D ₃₀ = 0.0073 mm
D ₆₀ = 0.0156 mm	D ₁₅ = N/A
D ₅₀ = 0.0132 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

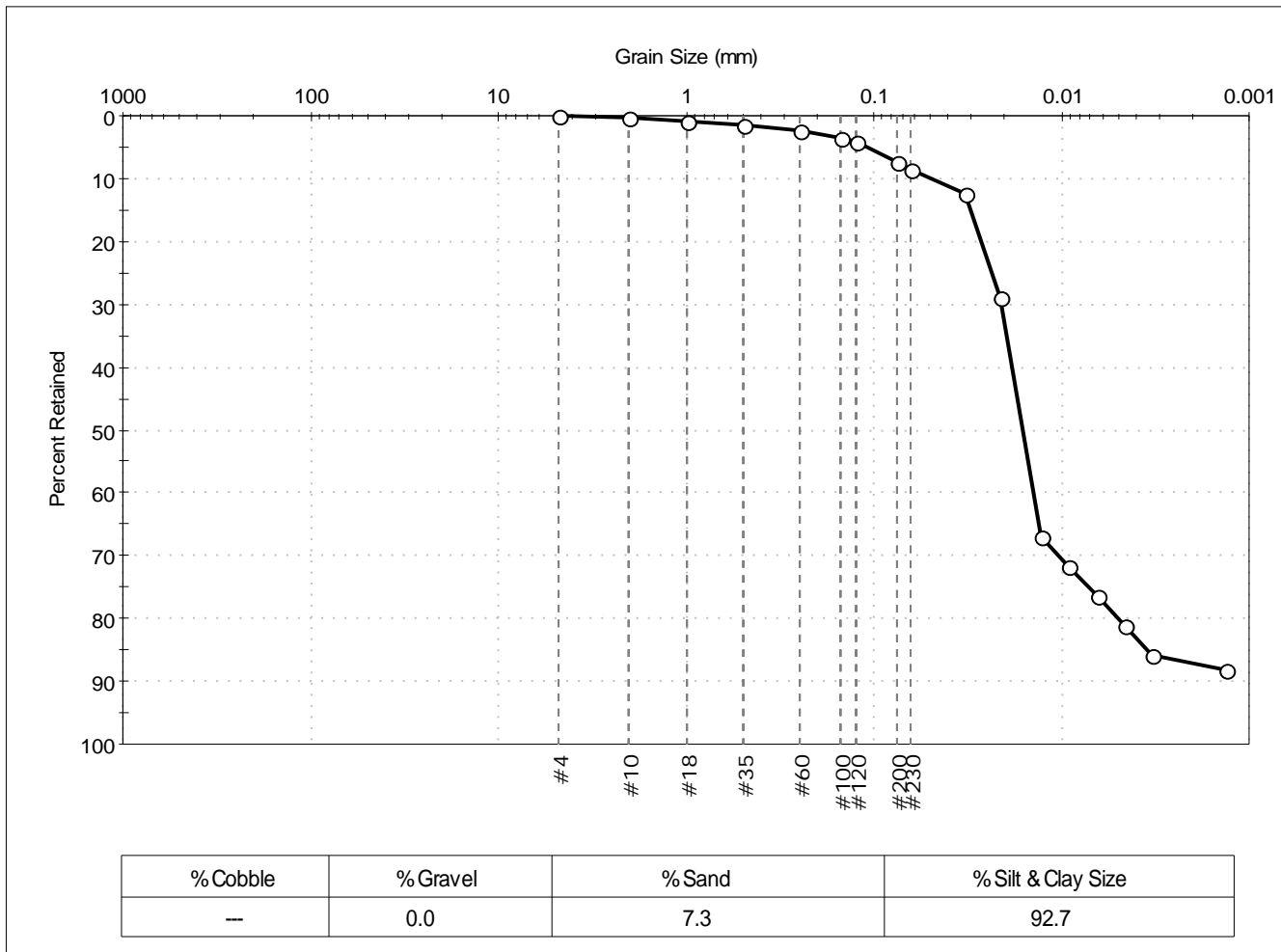
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 224-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0242DUP	Test Date: 10/27/14	Test Id: 310462	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	2		
#100	0.15	3		
#120	0.12	4		
#200	0.075	7		
#230	0.063	9		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	12		
---	0.0212	29		
---	0.0128	67		
---	0.0091	72		
---	0.0065	76		
---	0.0046	81		
---	0.0033	86		
---	0.0013	88		

<u>Coefficients</u>	
D ₈₅ = 0.0306 mm	D ₃₀ = 0.0102 mm
D ₆₀ = 0.0183 mm	D ₁₅ = 0.0035 mm
D ₅₀ = 0.0160 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

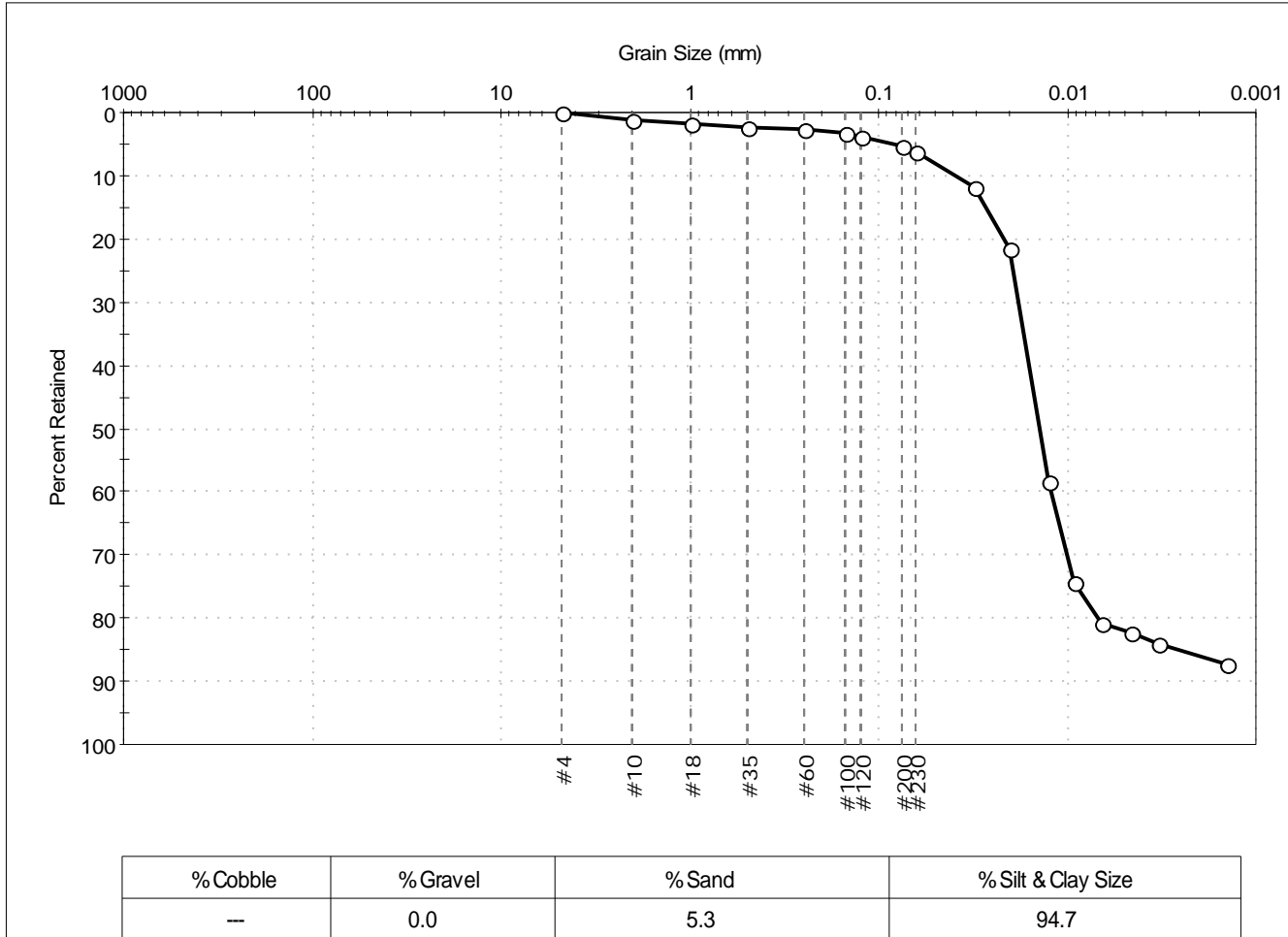
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	224-14LTM	Sample Type:	bag
Sample ID:	NBH14-0243	Test Date:	11/17/14
Depth:	---	Test Id:	310469
Test Comment:	---		
Sample Description:	Wet, very dark grayish brown silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	2		
#60	0.25	3		
#100	0.15	3		
#120	0.12	4		
#200	0.075	5		
#230	0.063	6		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0311	12		
---	0.0202	21		
---	0.0126	58		
---	0.0091	74		
---	0.0065	81		
---	0.0046	82		
---	0.0033	84		
---	0.0014	87		

<u>Coefficients</u>	
D ₈₅ = 0.0270 mm	D ₃₀ = 0.0099 mm
D ₆₀ = 0.0159 mm	D ₁₅ = 0.0025 mm
D ₅₀ = 0.0140 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

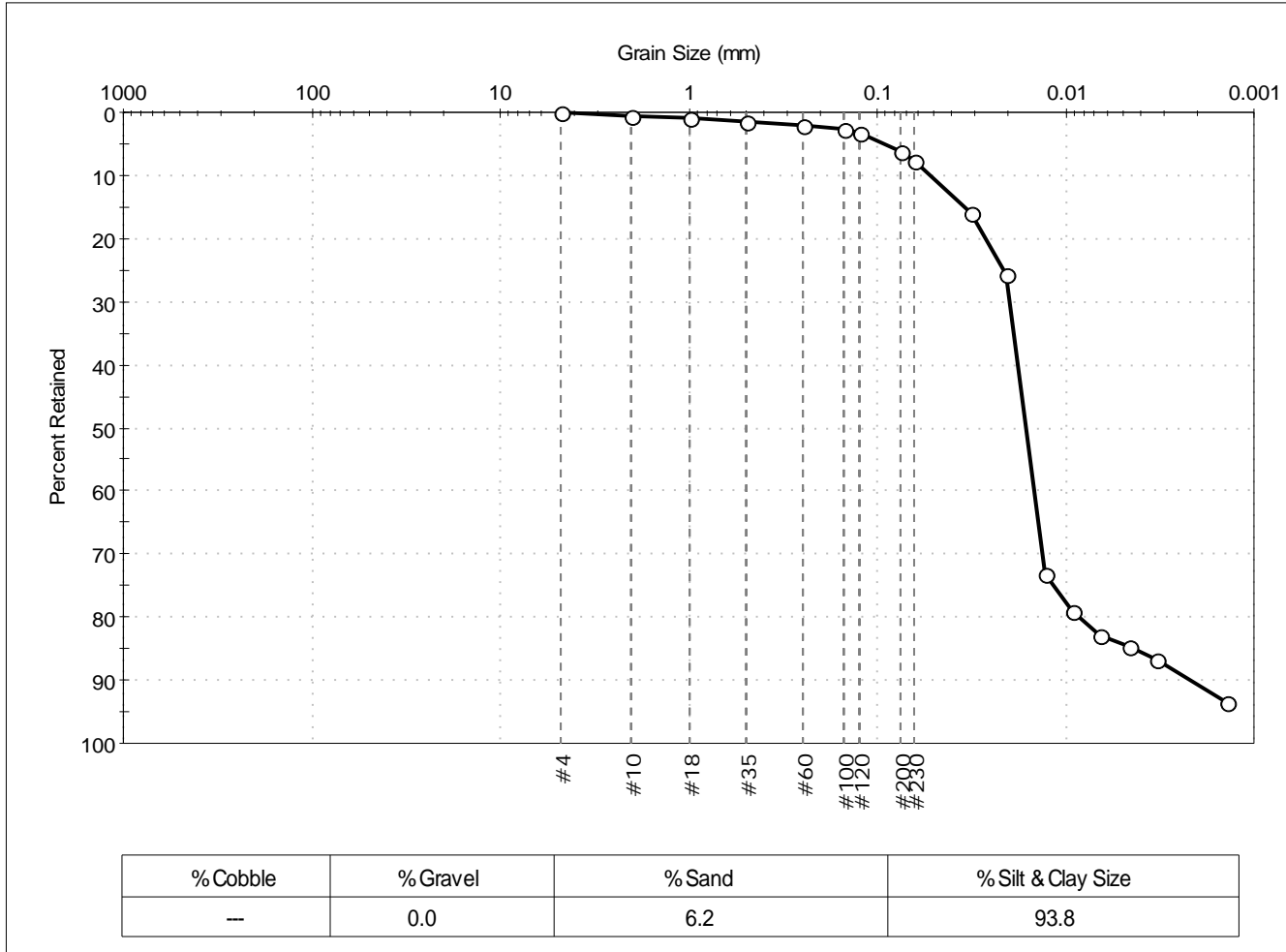
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	224-14LTM	Sample Type:	bag
Sample ID:	NBH14-0244	Test Date:	11/17/14
Depth:	---	Test Id:	310463
Test Comment:	---		
Sample Description:	Moist, very dark grayish brown silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	2		
#100	0.15	3		
#120	0.12	3		
#200	0.075	6		
#230	0.063	8		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0315	16		
---	0.0205	26		
---	0.0129	73		
---	0.0092	79		
---	0.0065	83		
---	0.0046	85		
---	0.0033	87		
---	0.0014	94		

<u>Coefficients</u>	
D ₈₅ = 0.0342 mm	D ₃₀ = 0.0133 mm
D ₆₀ = 0.0178 mm	D ₁₅ = 0.0044 mm
D ₅₀ = 0.0162 mm	D ₁₀ = 0.0022 mm
C _u = 8.091	C _c = 4.517

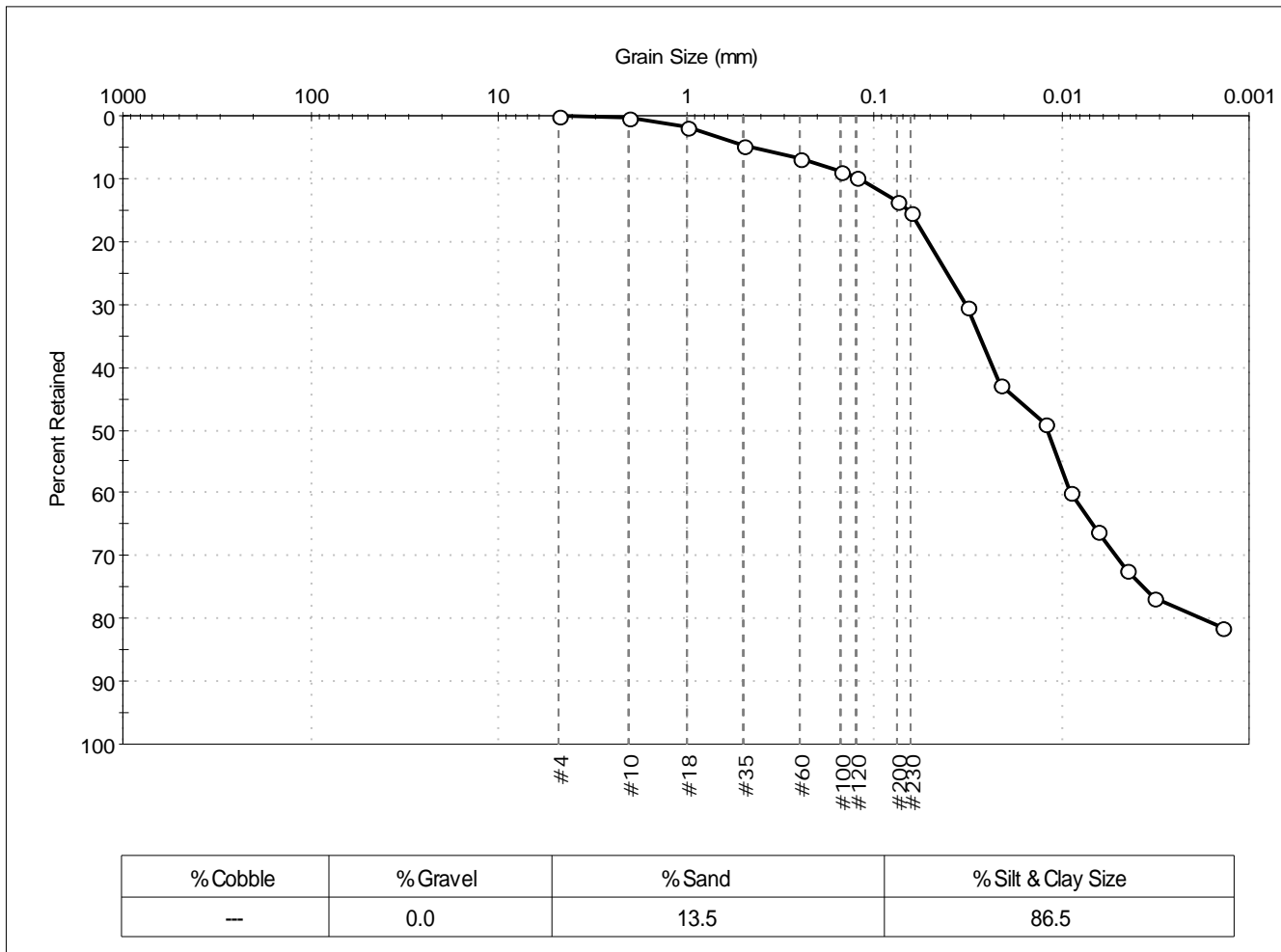
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 128-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0245	Test Date: 11/17/14	Test Id: 310464	
Depth: ---	Test Comment: ---	Sample Description: Moist, very dark grayish brown silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	5		
#60	0.25	7		
#100	0.15	9		
#120	0.12	10		
#200	0.075	14		
#230	0.063	15		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0319	30		
---	0.0210	43		
---	0.0123	49		
---	0.0089	60		
---	0.0064	66		
---	0.0045	72		
---	0.0032	77		
---	0.0014	81		

<u>Coefficients</u>	
D ₈₅ = 0.0651 mm	D ₃₀ = 0.0051 mm
D ₆₀ = 0.0230 mm	D ₁₅ = N/A
D ₅₀ = 0.0119 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

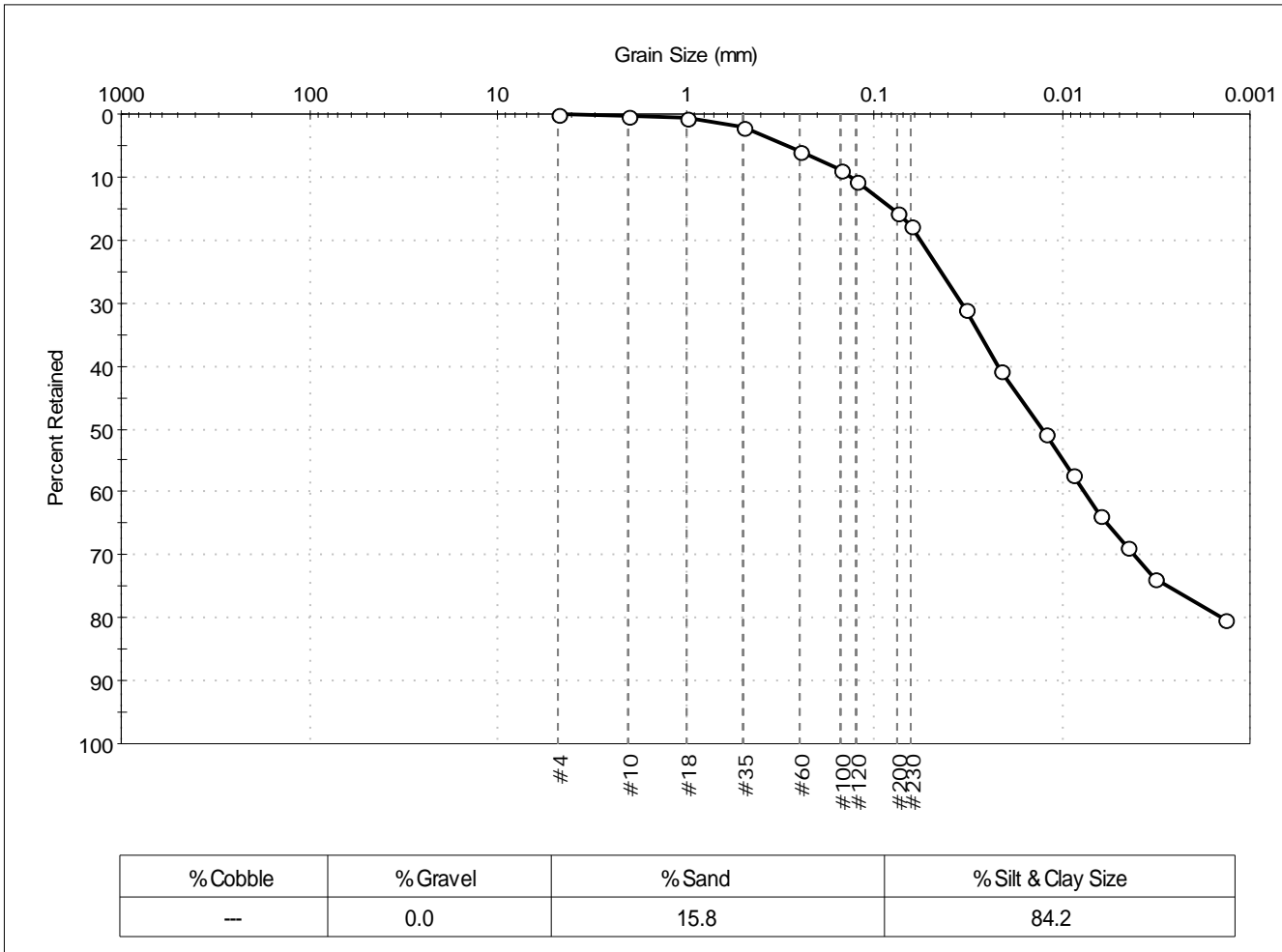
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 128-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0246
 Test Date: 10/27/14
 Checked By: jdt
 Depth: ---
 Test Id: 310465
 Test Comment: ---
 Sample Description: Wet, very dark gray silt with sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	6		
#100	0.15	9		
#120	0.12	10		
#200	0.075	16		
#230	0.063	18		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0325	31		
---	0.0210	41		
---	0.0123	51		
---	0.0088	57		
---	0.0063	64		
---	0.0045	69		
---	0.0032	74		
---	0.0014	80		

<u>Coefficients</u>	
D ₈₅ = 0.0809 mm	D ₃₀ = 0.0041 mm
D ₆₀ = 0.0218 mm	D ₁₅ = N/A
D ₅₀ = 0.0128 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

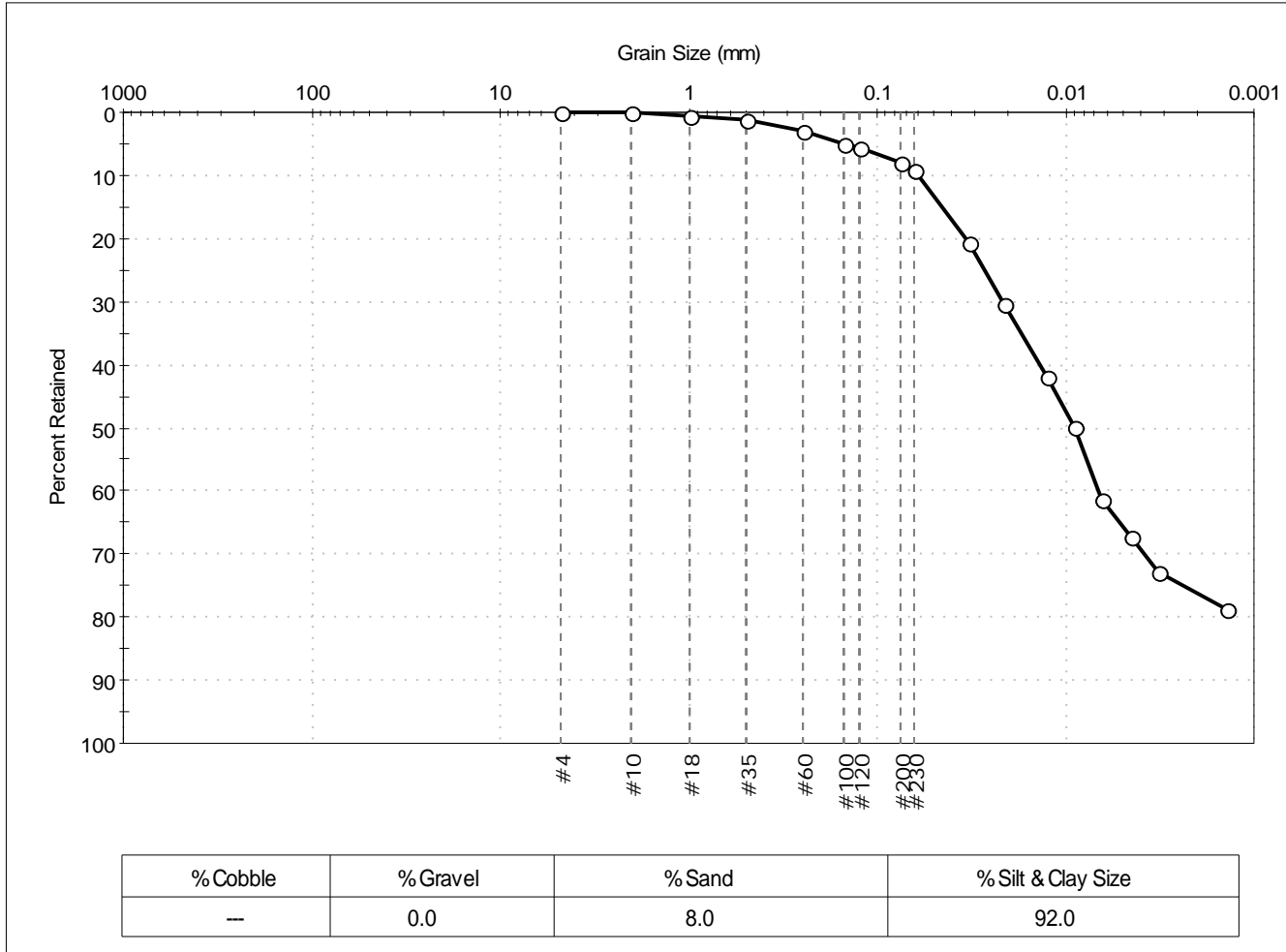
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 128-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0247	Test Date: 10/29/14	Test Id: 310466	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	3		
#100	0.15	5		
#120	0.12	6		
#200	0.075	8		
#230	0.063	9		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	21		
---	0.0211	30		
---	0.0124	42		
---	0.0089	50		
---	0.0064	61		
---	0.0045	67		
---	0.0032	73		
---	0.0014	79		

<u>Coefficients</u>	
D ₈₅ = 0.0453 mm	D ₃₀ = 0.0038 mm
D ₆₀ = 0.0136 mm	D ₁₅ = N/A
D ₅₀ = 0.0088 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

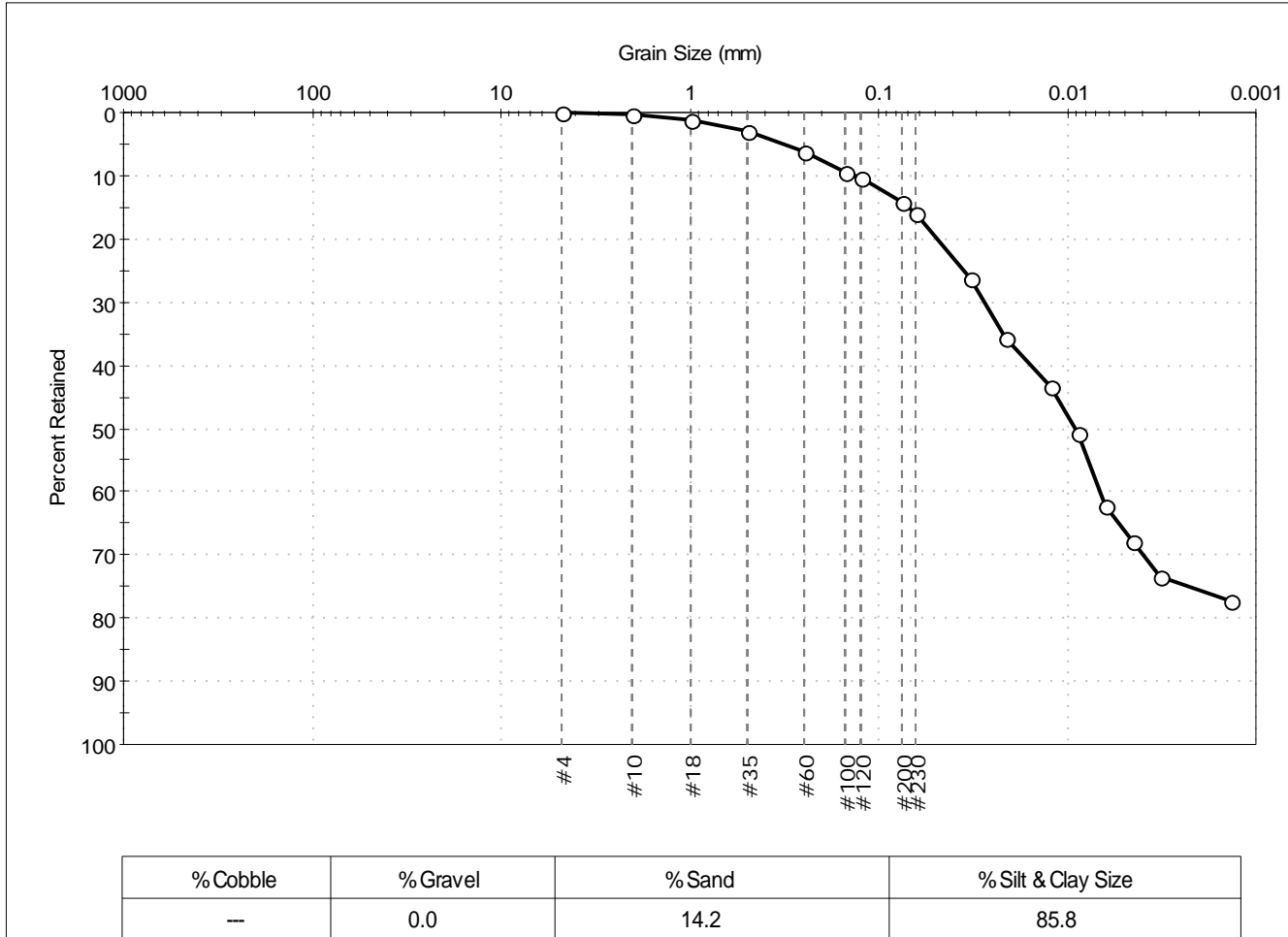
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 128-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0248	Test Date: 10/24/14	Test Id: 310467	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	6		
#100	0.15	9		
#120	0.12	10		
#200	0.075	14		
#230	0.063	16		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	26		
---	0.0211	36		
---	0.0123	43		
---	0.0088	51		
---	0.0063	62		
---	0.0045	68		
---	0.0032	74		
---	0.0014	77		

Coefficients	
D ₈₅ = 0.0689 mm	D ₃₀ = 0.0040 mm
D ₆₀ = 0.0156 mm	D ₁₅ = N/A
D ₅₀ = 0.0092 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

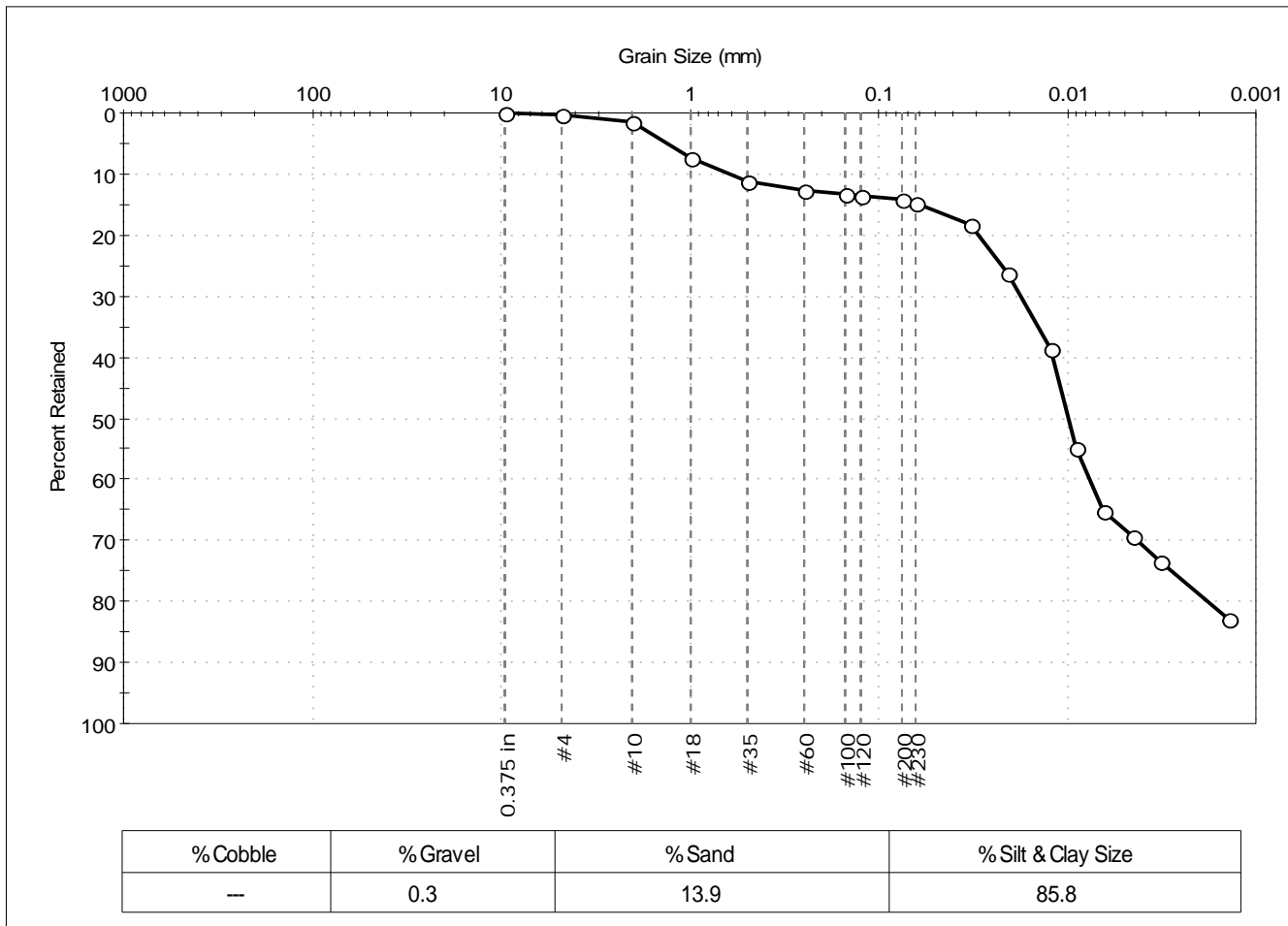
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 123-14LTM	Sample Type: bag
Sample ID: NBH14-0249	Test Date: 11/17/14
Depth: ---	Test Id: 310468
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dark grayish brown silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	1		
#18	1.00	7		
#35	0.50	11		
#60	0.25	13		
#100	0.15	13		
#120	0.12	14		
#200	0.075	14		
#230	0.063	15		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0324	18		
---	0.0208	26		
---	0.0122	39		
---	0.0089	55		
---	0.0064	65		
---	0.0045	69		
---	0.0032	73		
---	0.0014	83		

<u>Coefficients</u>	
D ₈₅ = 0.0587 mm	D ₃₀ = 0.0043 mm
D ₆₀ = 0.0119 mm	D ₁₅ = N/A
D ₅₀ = 0.0098 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

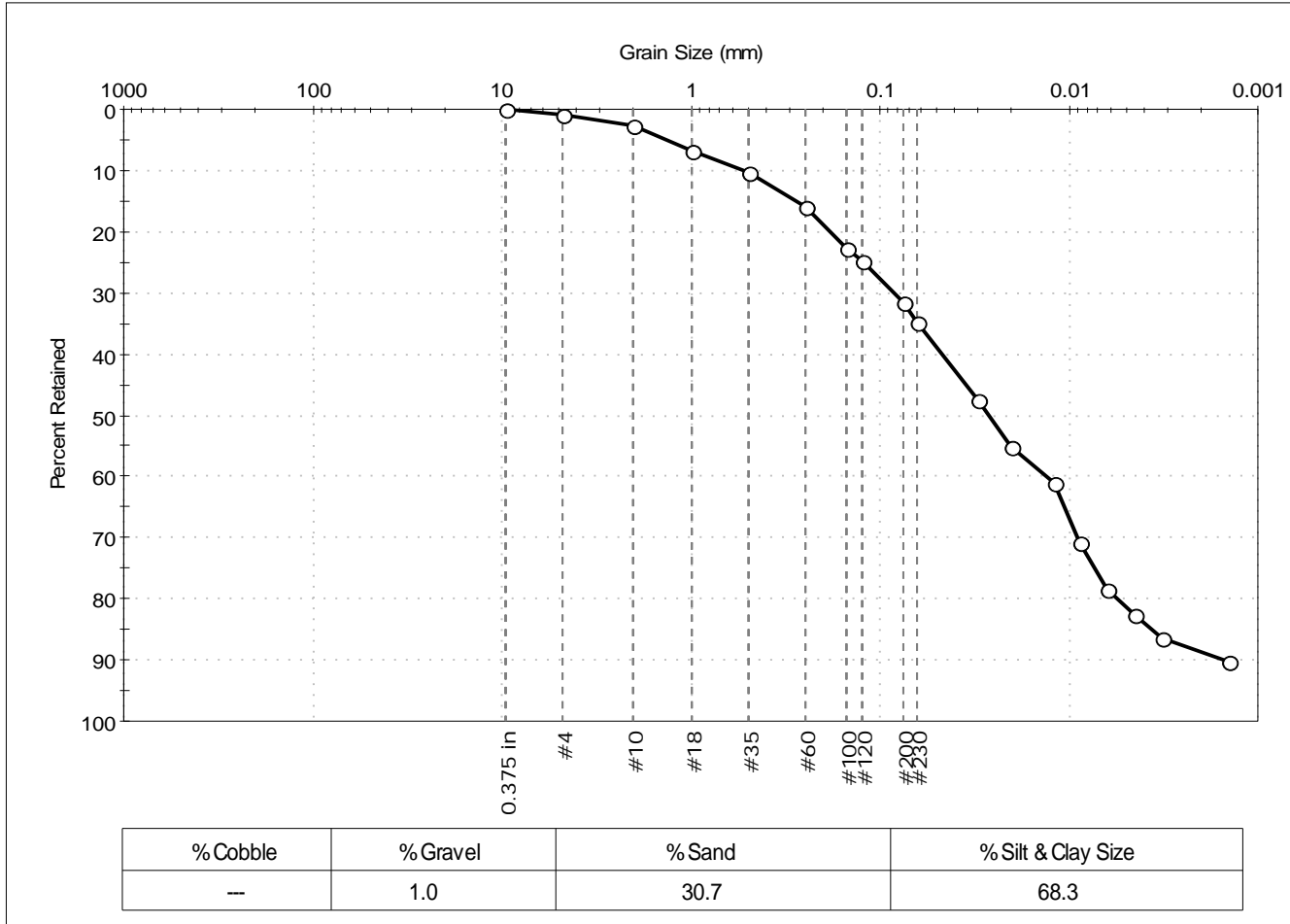
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	211-14LTM	Sample Type:	bag
Sample ID:	NBH14-0325	Test Date:	11/03/14
Depth:	---	Test Id:	310539
Test Comment:	---		
Sample Description:	Wet, dark olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	7		
#35	0.50	10		
#60	0.25	16		
#100	0.15	23		
#120	0.12	25		
#200	0.075	32		
#230	0.063	35		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0303	47		
---	0.0204	55		
---	0.0120	61		
---	0.0088	71		
---	0.0063	79		
---	0.0045	82		
---	0.0032	86		
---	0.0014	90		

<u>Coefficients</u>	
D ₈₅ = 0.2809 mm	D ₃₀ = 0.0090 mm
D ₆₀ = 0.0468 mm	D ₁₅ = 0.0036 mm
D ₅₀ = 0.0266 mm	D ₁₀ = 0.0015 mm
C _u = 31.200	C _c = 1.154

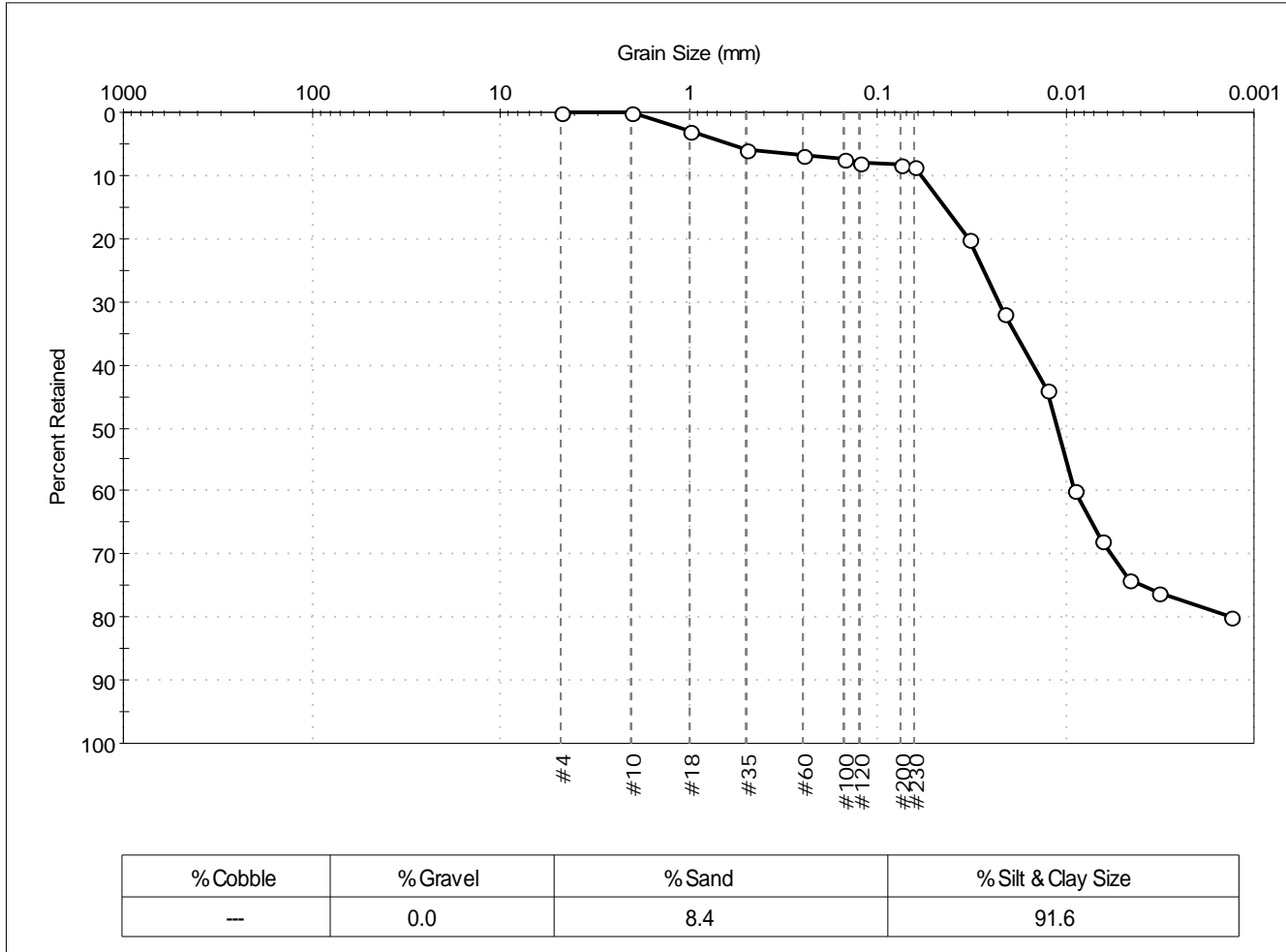
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 123-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0250	Test Date: 10/24/14	Test Id: 310470	
Depth: ---	Test Comment: ---	Sample Description: Wet, very drk gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	3		
#35	0.50	6		
#60	0.25	7		
#100	0.15	7		
#120	0.12	8		
#200	0.075	8		
#230	0.063	9		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0329	20		
---	0.0211	32		
---	0.0124	44		
---	0.0090	60		
---	0.0064	68		
---	0.0046	74		
---	0.0032	76		
---	0.0013	80		

<u>Coefficients</u>	
D ₈₅ = 0.0438 mm	D ₃₀ = 0.0057 mm
D ₆₀ = 0.0148 mm	D ₁₅ = N/A
D ₅₀ = 0.0110 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

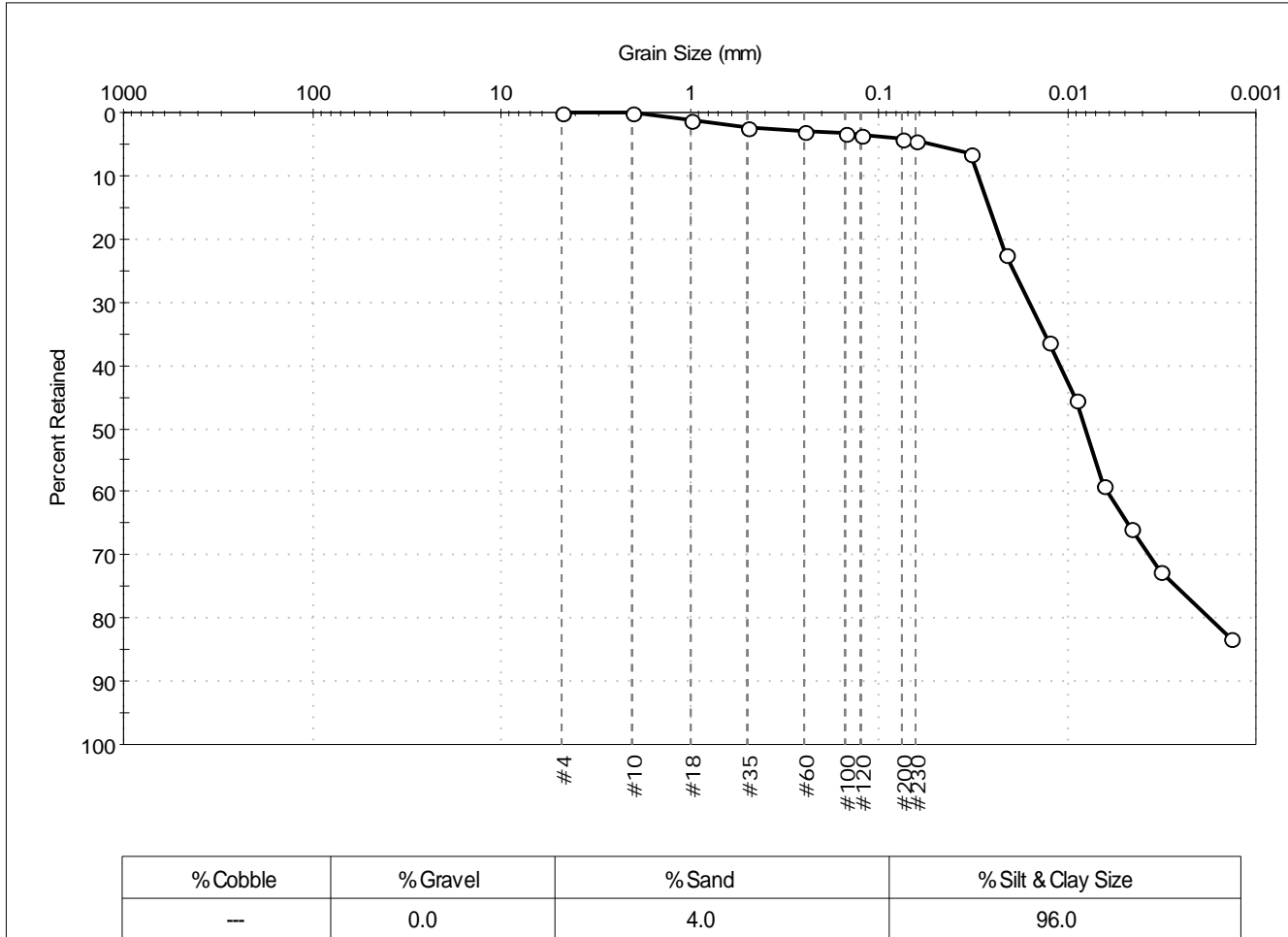
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 123-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0251	Test Date: 11/12/14	Checked By: jdt	
Depth: ---	Test Id: 310471		
Test Comment: ---			
Sample Description: Moist, very dark gray silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	3		
#100	0.15	3		
#120	0.12	3		
#200	0.075	4		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	7		
---	0.0211	23		
---	0.0124	36		
---	0.0089	45		
---	0.0064	59		
---	0.0046	66		
---	0.0032	73		
---	0.0014	83		

<u>Coefficients</u>	
D ₈₅ = 0.0259 mm	D ₃₀ = 0.0037 mm
D ₆₀ = 0.0108 mm	D ₁₅ = N/A
D ₅₀ = 0.0079 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

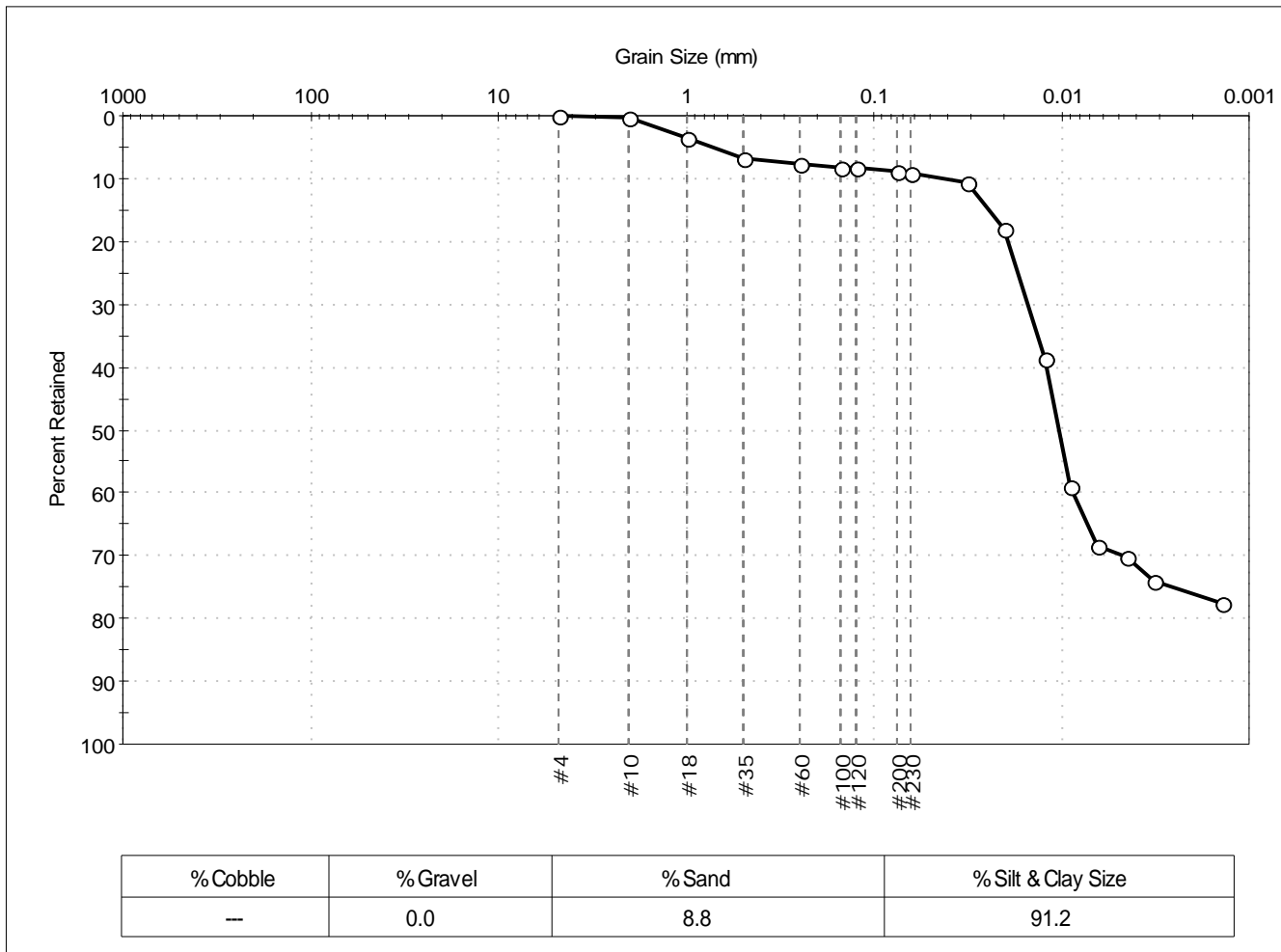
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 123-14LTM	Sample Type: bag
Sample ID: NBH14-0252	Test Date: 10/30/14
Depth: ---	Test Id: 310472
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark olive gray silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	4		
#35	0.50	7		
#60	0.25	8		
#100	0.15	8		
#120	0.12	8		
#200	0.075	9		
#230	0.063	9		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	11		
---	0.0203	18		
---	0.0121	39		
---	0.0089	59		
---	0.0064	68		
---	0.0045	70		
---	0.0032	74		
---	0.0014	78		

<u>Coefficients</u>	
D ₈₅ = 0.0243 mm	D ₃₀ = 0.0047 mm
D ₆₀ = 0.0119 mm	D ₁₅ = N/A
D ₅₀ = 0.0102 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

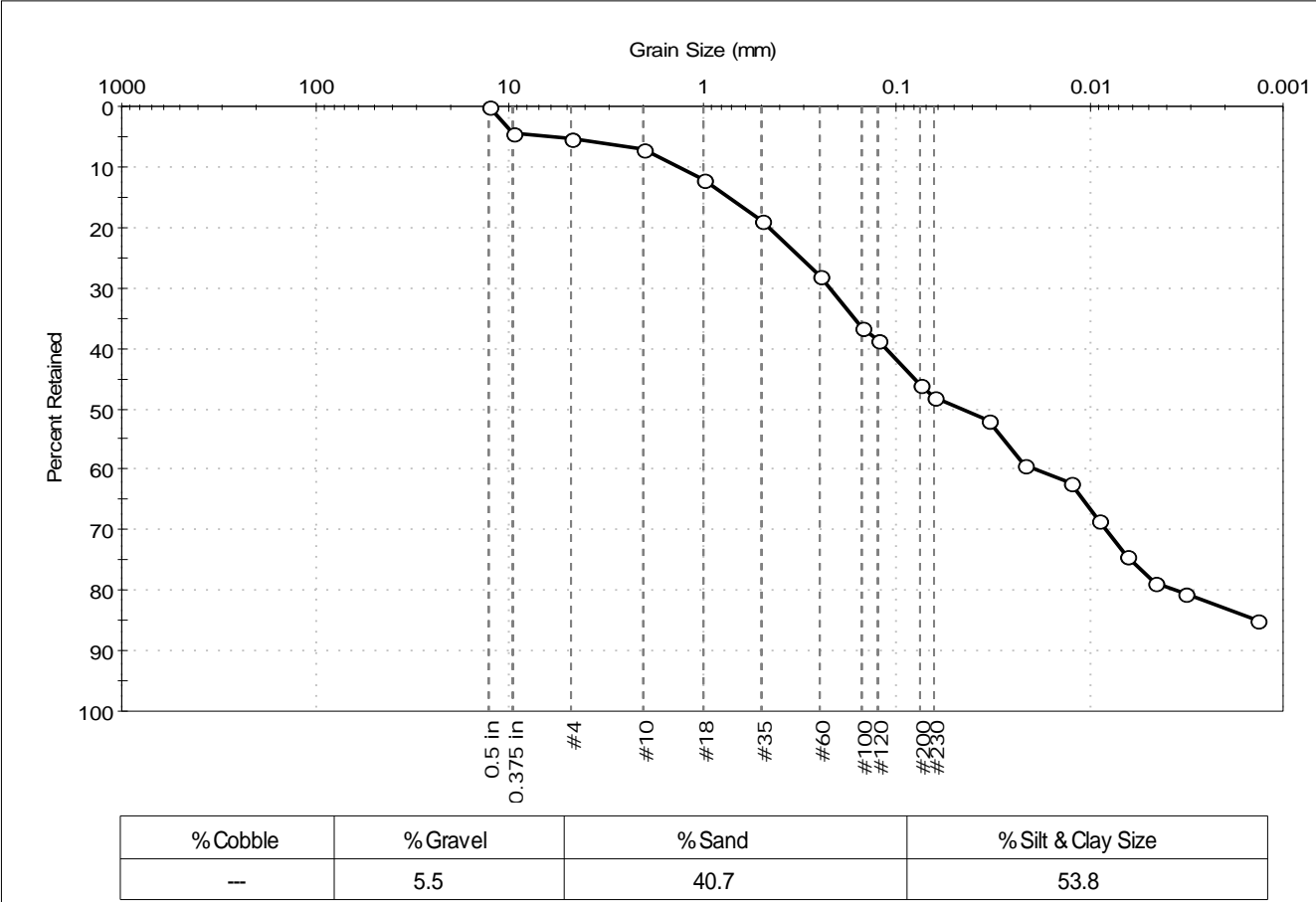
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 121-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0253	Test Date: 10/24/14	Test Id: 310473	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.70	0		
0.375 in	9.50	4		
#4	4.75	5		
#10	2.00	7		
#18	1.00	12		
#35	0.50	19		
#60	0.25	28		
#100	0.15	37		
#120	0.12	39		
#200	0.075	46		
#230	0.063	48		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	52		
---	0.0216	59		
---	0.0125	62		
---	0.0090	68		
---	0.0064	74		
---	0.0046	79		
---	0.0032	80		
---	0.0014	85		

<u>Coefficients</u>	
D ₈₅ = 0.7420 mm	D ₃₀ = 0.0082 mm
D ₆₀ = 0.1144 mm	D ₁₅ = N/A
D ₅₀ = 0.0453 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

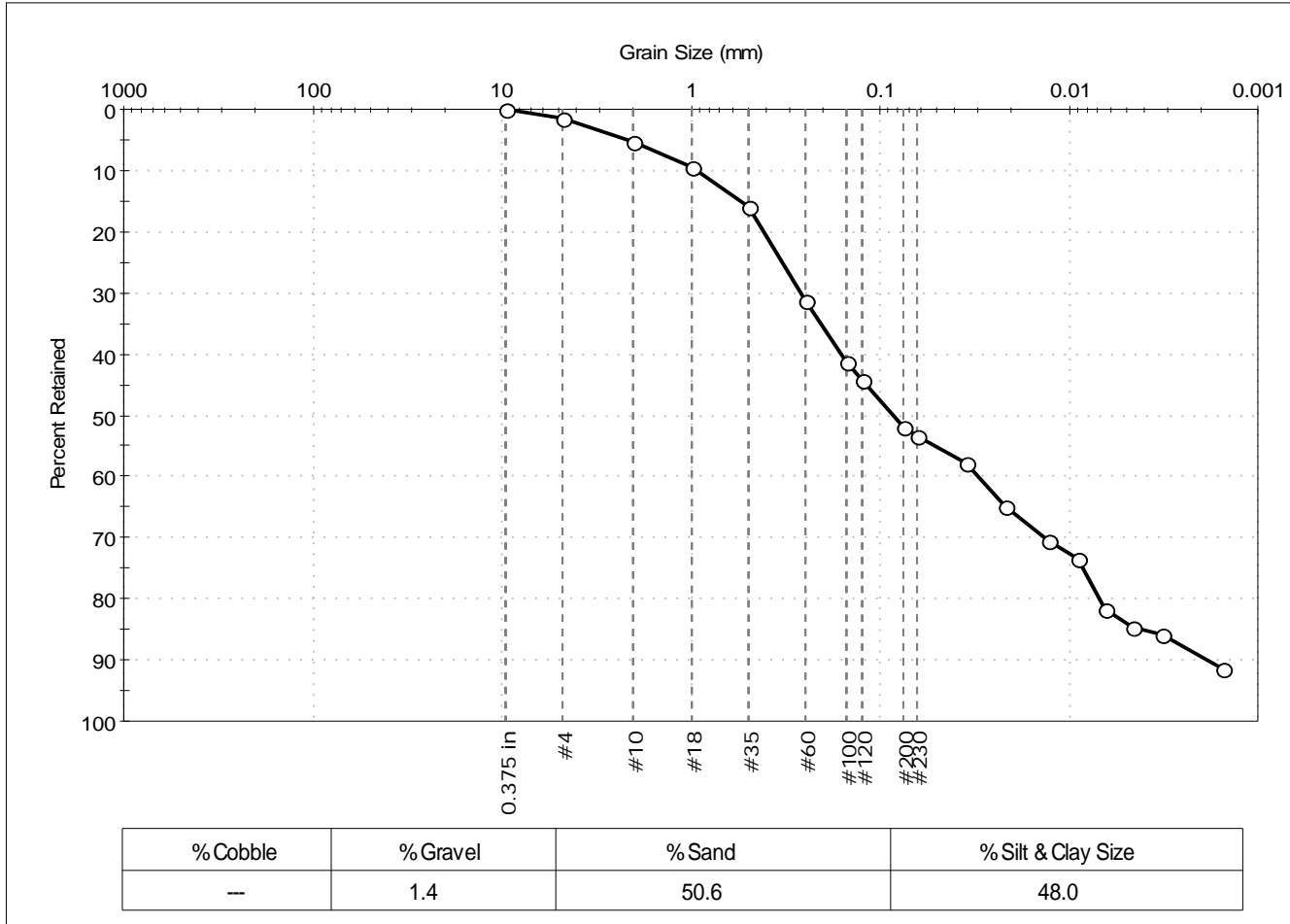
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	121-14LTM	Sample Type:	bag
Sample ID:	NBH14-0254	Test Date:	11/03/14
Depth:	---	Test Id:	310474
Test Comment:	---		
Sample Description:	Wet, dark olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	5		
#18	1.00	10		
#35	0.50	16		
#60	0.25	31		
#100	0.15	41		
#120	0.12	44		
#200	0.075	52		
#230	0.063	53		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0349	58		
---	0.0218	65		
---	0.0127	71		
---	0.0090	73		
---	0.0065	82		
---	0.0046	85		
---	0.0032	86		
---	0.0015	92		

<u>Coefficients</u>	
D ₈₅ = 0.5466 mm	D ₃₀ = 0.0134 mm
D ₆₀ = 0.1611 mm	D ₁₅ = 0.0041 mm
D ₅₀ = 0.0854 mm	D ₁₀ = 0.0019 mm
C _u = 84.789	C _c = 0.587

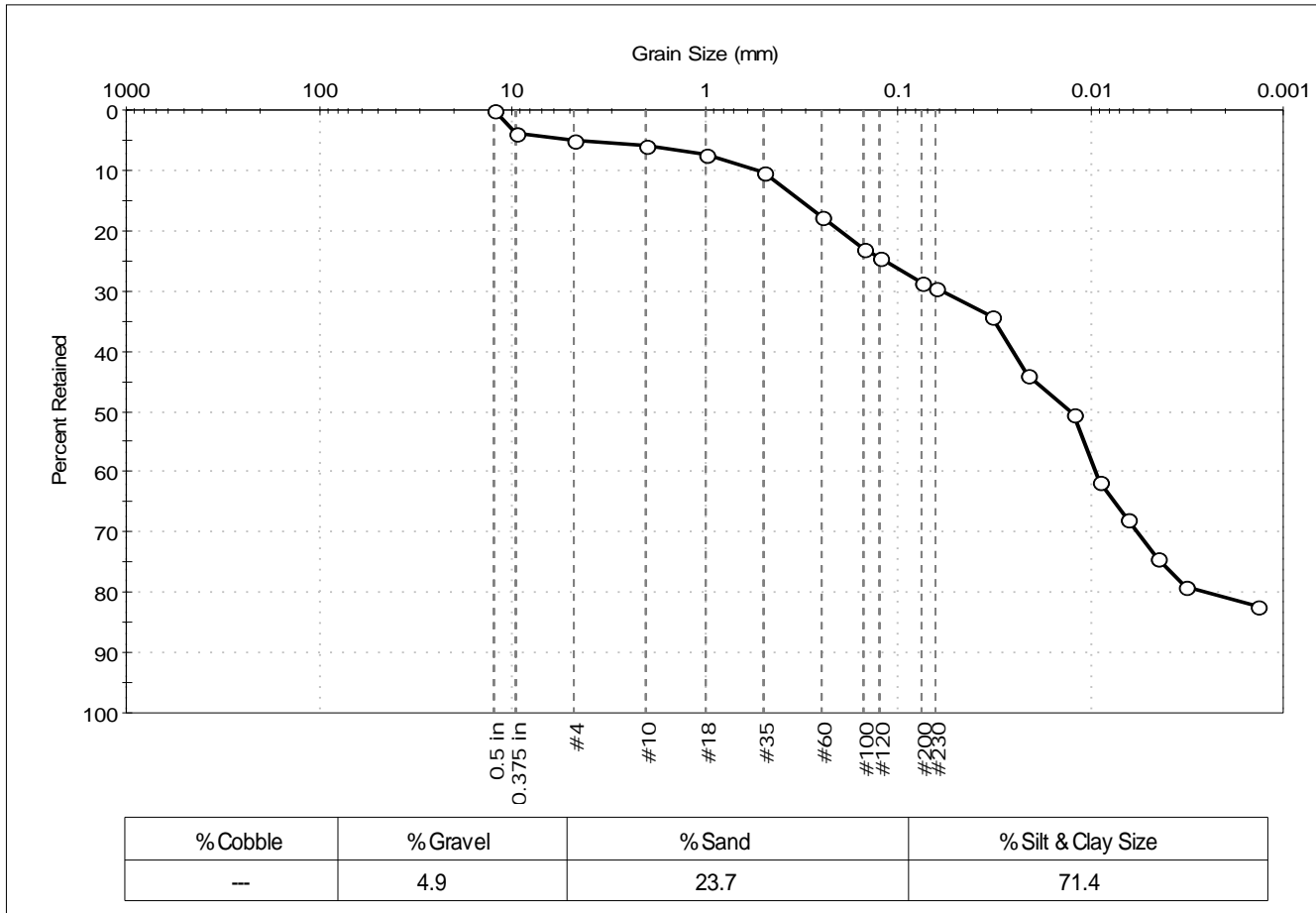
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 121-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0255
 Test Date: 10/29/14
 Checked By: jdt
 Depth: ---
 Test Id: 310475
 Test Comment: ---
 Sample Description: Wet, dark olive gray silt with sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	4		
#4	4.75	5		
#10	2.00	6		
#18	1.00	7		
#35	0.50	10		
#60	0.25	18		
#100	0.15	23		
#120	0.12	24		
#200	0.075	29		
#230	0.063	29		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	34		
---	0.0210	44		
---	0.0124	50		
---	0.0089	62		
---	0.0064	68		
---	0.0045	74		
---	0.0032	79		
---	0.0014	82		

Coefficients

D ₈₅ = 0.3232 mm	D ₃₀ = 0.0057 mm
D ₆₀ = 0.0252 mm	D ₁₅ = N/A
D ₅₀ = 0.0127 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

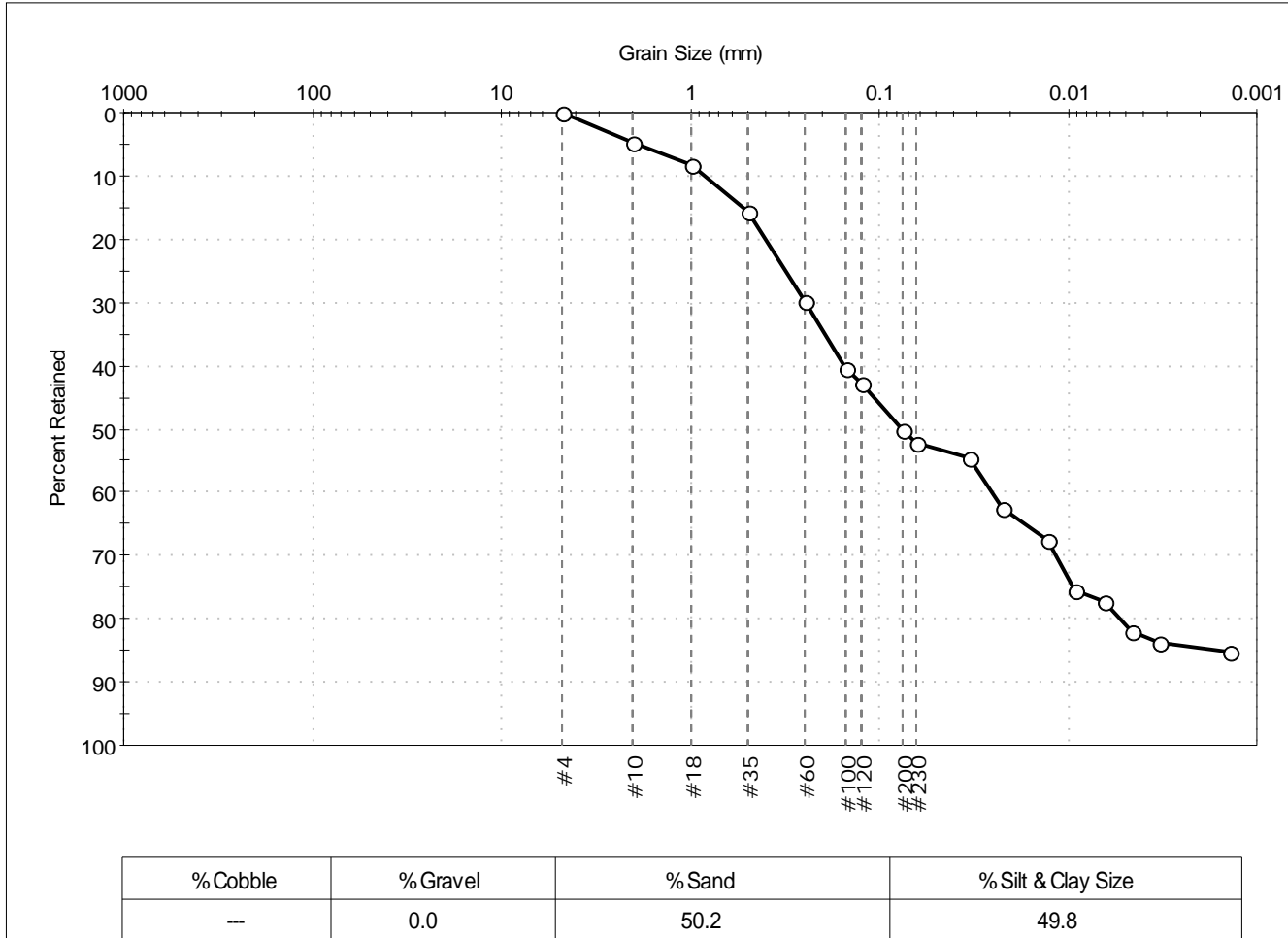
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 121-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0256	Test Date: 10/24/14	Test Id: 310476	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	5		
#18	1.00	8		
#35	0.50	16		
#60	0.25	30		
#100	0.15	40		
#120	0.12	43		
#200	0.075	50		
#230	0.063	52		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	54		
---	0.0220	63		
---	0.0127	67		
---	0.0091	76		
---	0.0065	77		
---	0.0046	82		
---	0.0033	84		
---	0.0014	85		

Coefficients	
D ₈₅ = 0.5251 mm	D ₃₀ = 0.0115 mm
D ₆₀ = 0.1524 mm	D ₁₅ = 0.0017 mm
D ₅₀ = 0.0760 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

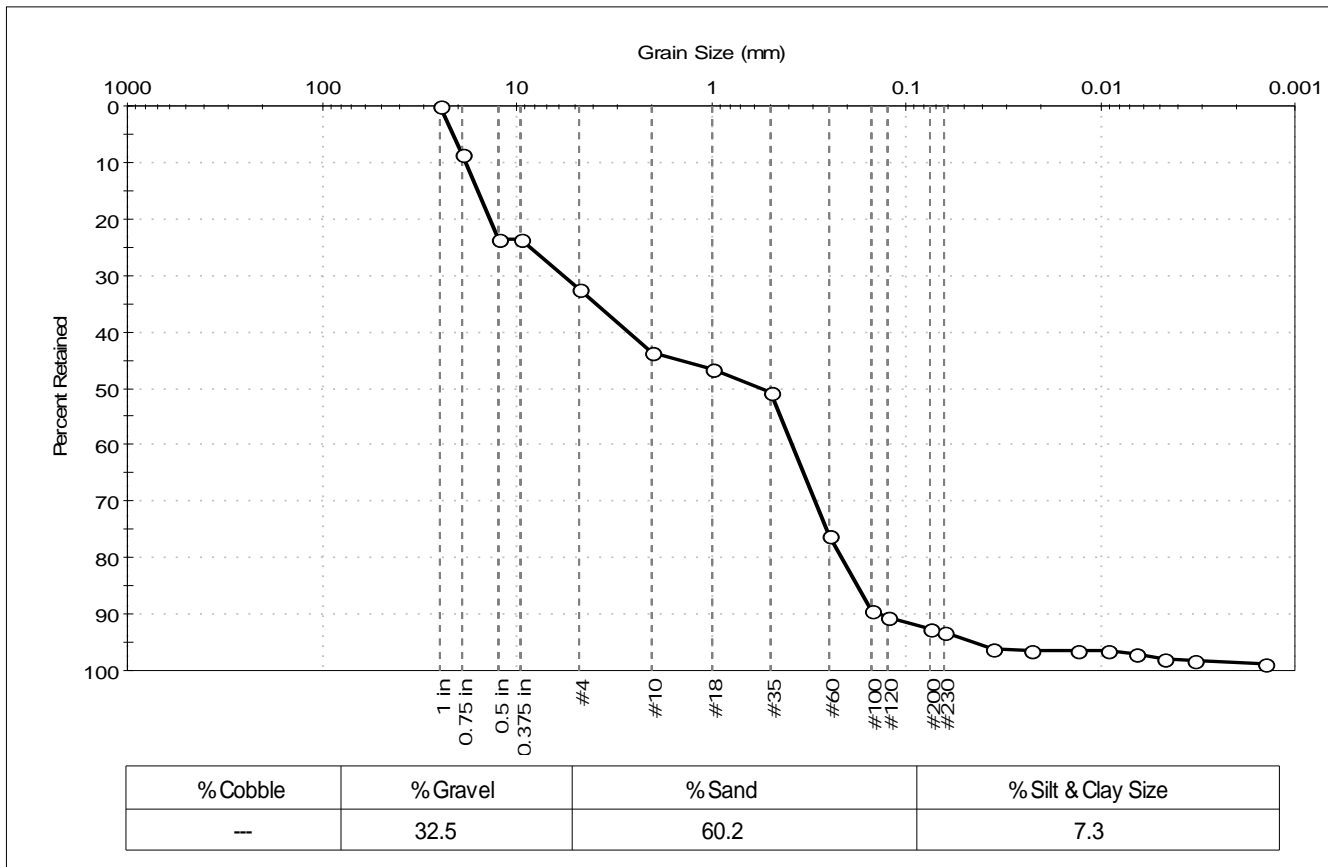
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	218-14LTM	Sample Type:	bag
Sample ID:	NBH14-0257	Test Date:	11/06/14
Depth:	---	Checked By:	jdt
		Test Id:	310477
Test Comment:	---		
Sample Description:	Moist, dark olive gray sand with silt and gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
1 in	25.00	0		
0.75 in	19.00	9		
0.5 in	12.50	24		
0.375 in	9.50	24		
#4	4.75	33		
#10	2.00	44		
#18	1.00	47		
#35	0.50	51		
#60	0.25	76		
#100	0.15	89		
#120	0.12	91		
#200	0.075	92.7		
#230	0.063	93		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0359	96		
---	0.0228	97		
---	0.0131	97		
---	0.0093	97		
---	0.0066	97		
---	0.0047	98		
---	0.0033	98		
---	0.0014	99		

<u>Coefficients</u>	
D ₈₅ = 15.8982 mm	D ₃₀ = 0.2946 mm
D ₆₀ = 2.6572 mm	D ₁₅ = 0.1773 mm
D ₅₀ = 0.5650 mm	D ₁₀ = 0.1369 mm
C _u = 19.410	C _c = 0.239

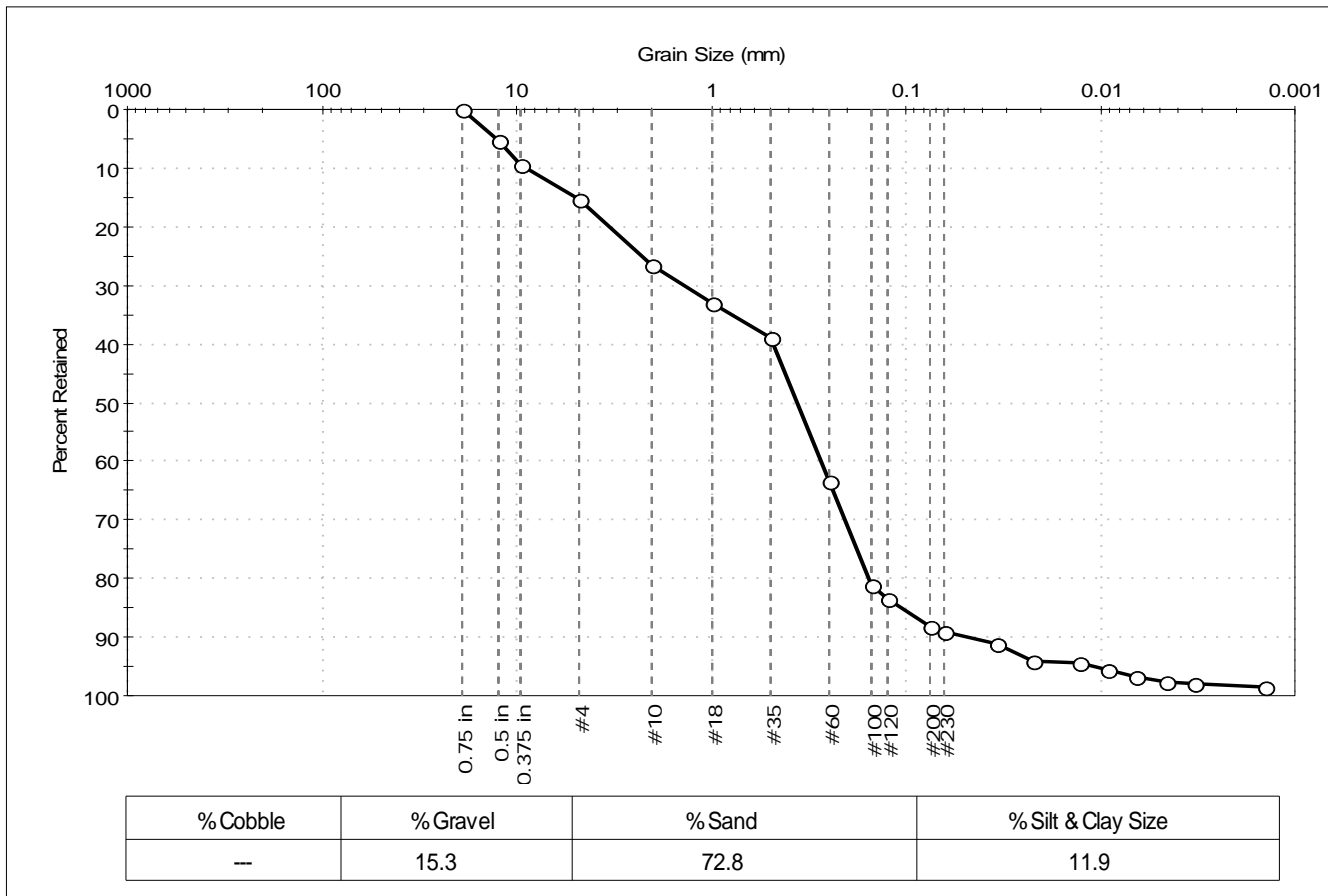
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ROUNDED	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 218-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0258	Test Date: 10/30/14	Checked By: jdt	
Depth: ---	Test Id: 310478		
Test Comment: ---			
Sample Description: Wet, olive brown sand with silt and gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	5		
0.375 in	9.50	9		
#4	4.75	15		
#10	2.00	27		
#18	1.00	33		
#35	0.50	39		
#60	0.25	63		
#100	0.15	81		
#120	0.12	83		
#200	0.075	88		
#230	0.063	89		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0344	91		
---	0.0222	94		
---	0.0129	94		
---	0.0092	96		
---	0.0065	97		
---	0.0047	98		
---	0.0033	98		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 4.9584 mm	D ₃₀ = 0.2069 mm
D ₆₀ = 0.4867 mm	D ₁₅ = 0.1049 mm
D ₅₀ = 0.3664 mm	D ₁₀ = 0.0479 mm
C _u = 10.161	C _c = 1.836

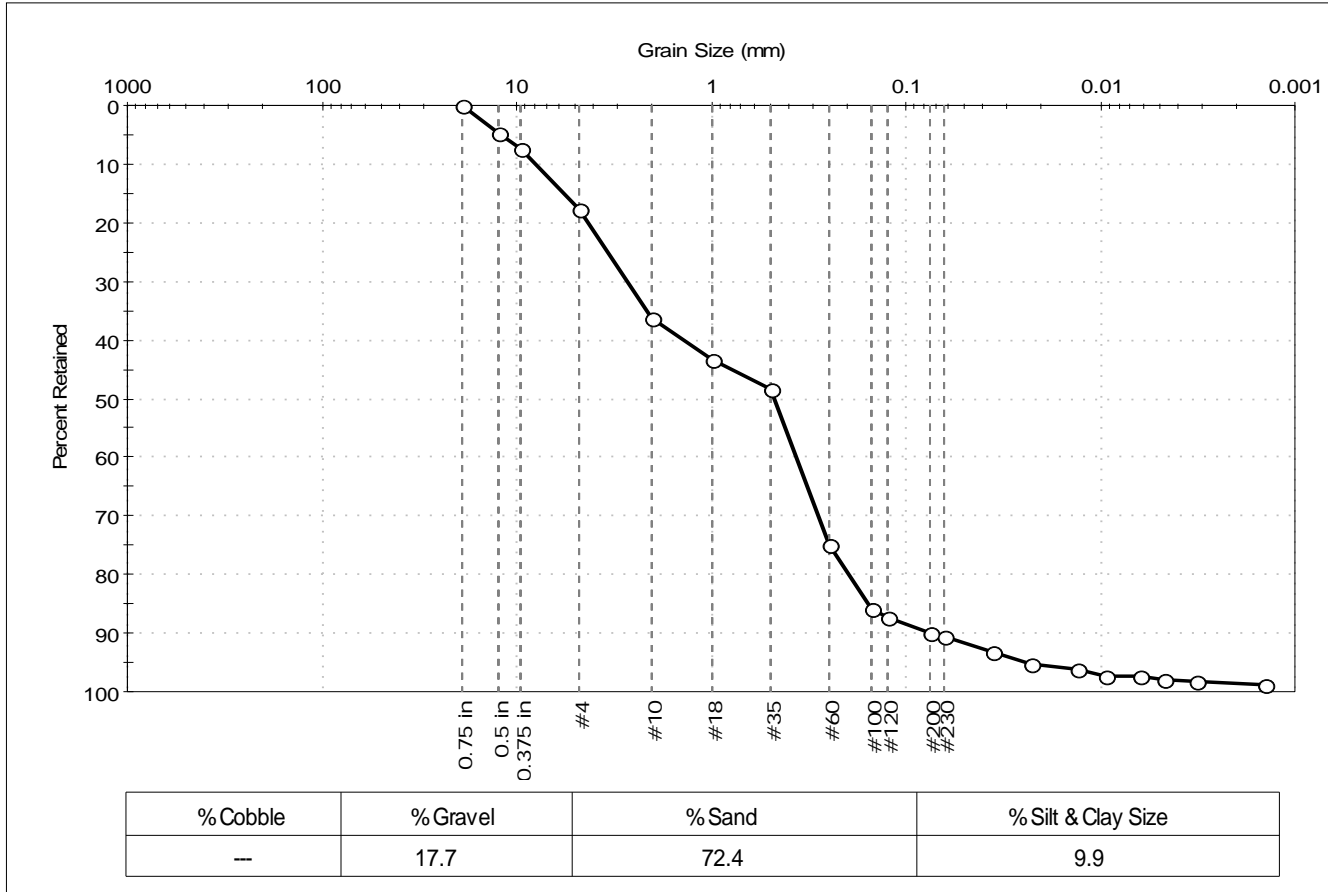
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 218-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0259	Test Date: 11/05/14	Test Id: 310479	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray sand with silt and gravel	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	5		
0.375 in	9.50	7		
#4	4.75	18		
#10	2.00	36		
#18	1.00	43		
#35	0.50	48		
#60	0.25	75		
#100	0.15	86		
#120	0.12	87		
#200	0.075	90.1		
#230	0.063	91		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0358	93		
---	0.0226	95		
---	0.0132	96		
---	0.0094	97		
---	0.0063	97		
---	0.0047	98		
---	0.0033	98		
---	0.0014	99		

Coefficients

D ₈₅ = 5.7011 mm	D ₃₀ = 0.2839 mm
D ₆₀ = 1.3991 mm	D ₁₅ = 0.1564 mm
D ₅₀ = 0.4793 mm	D ₁₀ = 0.0762 mm
C _u = 18.361	C _c = 0.756

Classification

ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (1))

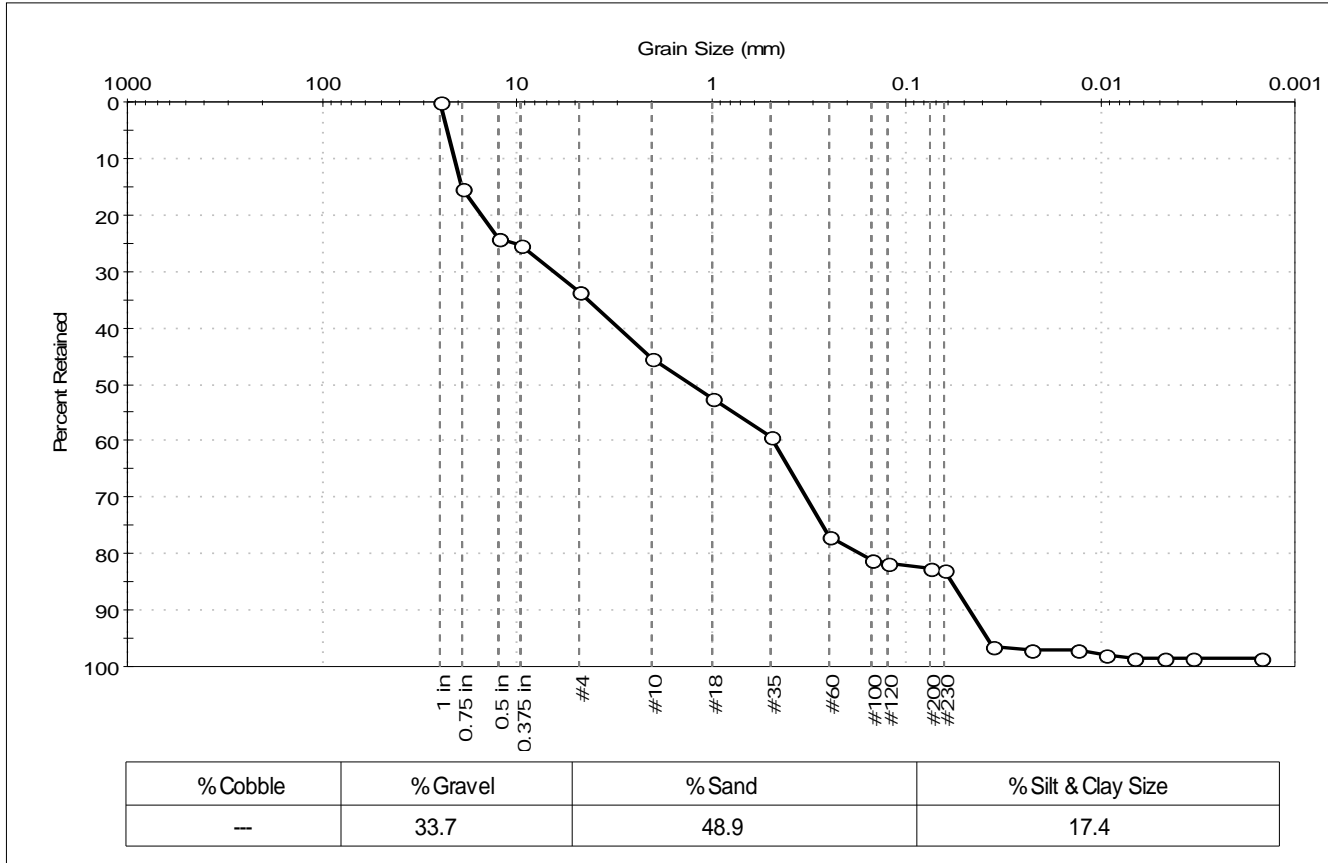
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 218-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0260	Test Date: 11/18/14	Checked By: jdt	
Depth: ---	Test Id: 310480		
Test Comment: ---			
Sample Description: Wet, black silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
1 in	25.00	0		
0.75 in	19.00	15		
0.5 in	12.50	24		
0.375 in	9.50	25		
#4	4.75	34		
#10	2.00	46		
#18	1.00	53		
#35	0.50	59		
#60	0.25	77		
#100	0.15	81		
#120	0.12	82		
#200	0.075	83		
#230	0.063	83		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0356	96		
---	0.0229	97		
---	0.0132	97		
---	0.0094	98		
---	0.0067	98		
---	0.0047	98		
---	0.0034	98		
---	0.0015	98		

<u>Coefficients</u>	
D ₈₅ = 19.0981 mm	D ₃₀ = 0.3286 mm
D ₆₀ = 2.9914 mm	D ₁₅ = 0.0575 mm
D ₅₀ = 1.2909 mm	D ₁₀ = 0.0467 mm
C _u = 64.056	C _c = 0.773

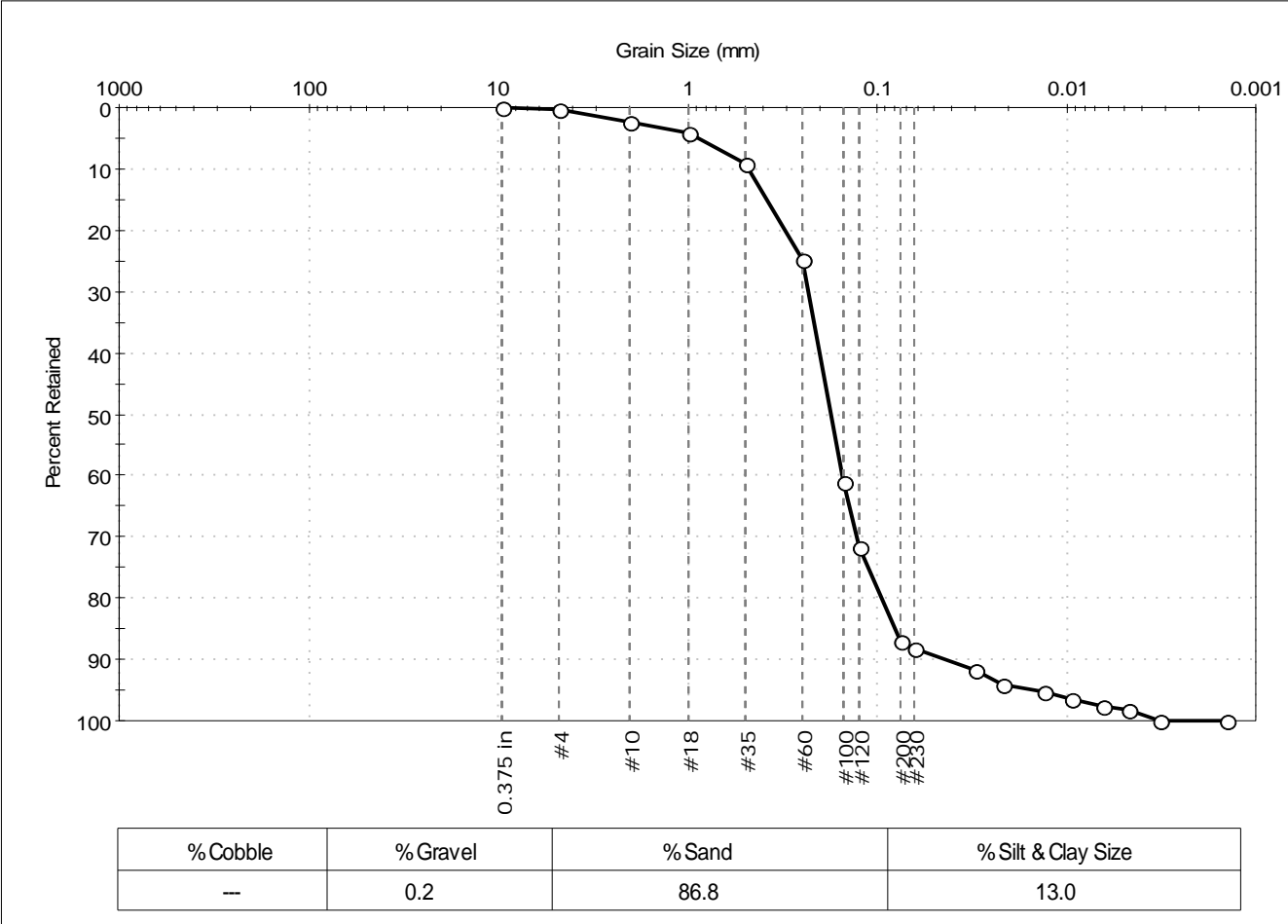
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ROUNDED	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	208-14LTM	Sample Type:	bag
Sample ID:	NBH14-0261	Test Date:	11/04/14
Depth:	---	Test Id:	310545
Test Comment:	---		
Sample Description:	Wet, dark gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	2		
#18	1.00	4		
#35	0.50	9		
#60	0.25	25		
#100	0.15	61		
#120	0.12	72		
#200	0.075	87		
#230	0.063	88		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0301	92		
---	0.0219	94		
---	0.0131	95		
---	0.0094	96		
---	0.0065	98		
---	0.0047	98		
---	0.0032	100		
---	0.0014	100		

<u>Coefficients</u>	
D ₈₅ = 0.3848 mm	D ₃₀ = 0.1286 mm
D ₆₀ = 0.2019 mm	D ₁₅ = 0.0803 mm
D ₅₀ = 0.1754 mm	D ₁₀ = 0.0440 mm
C _u = 4.589	C _c = 1.862

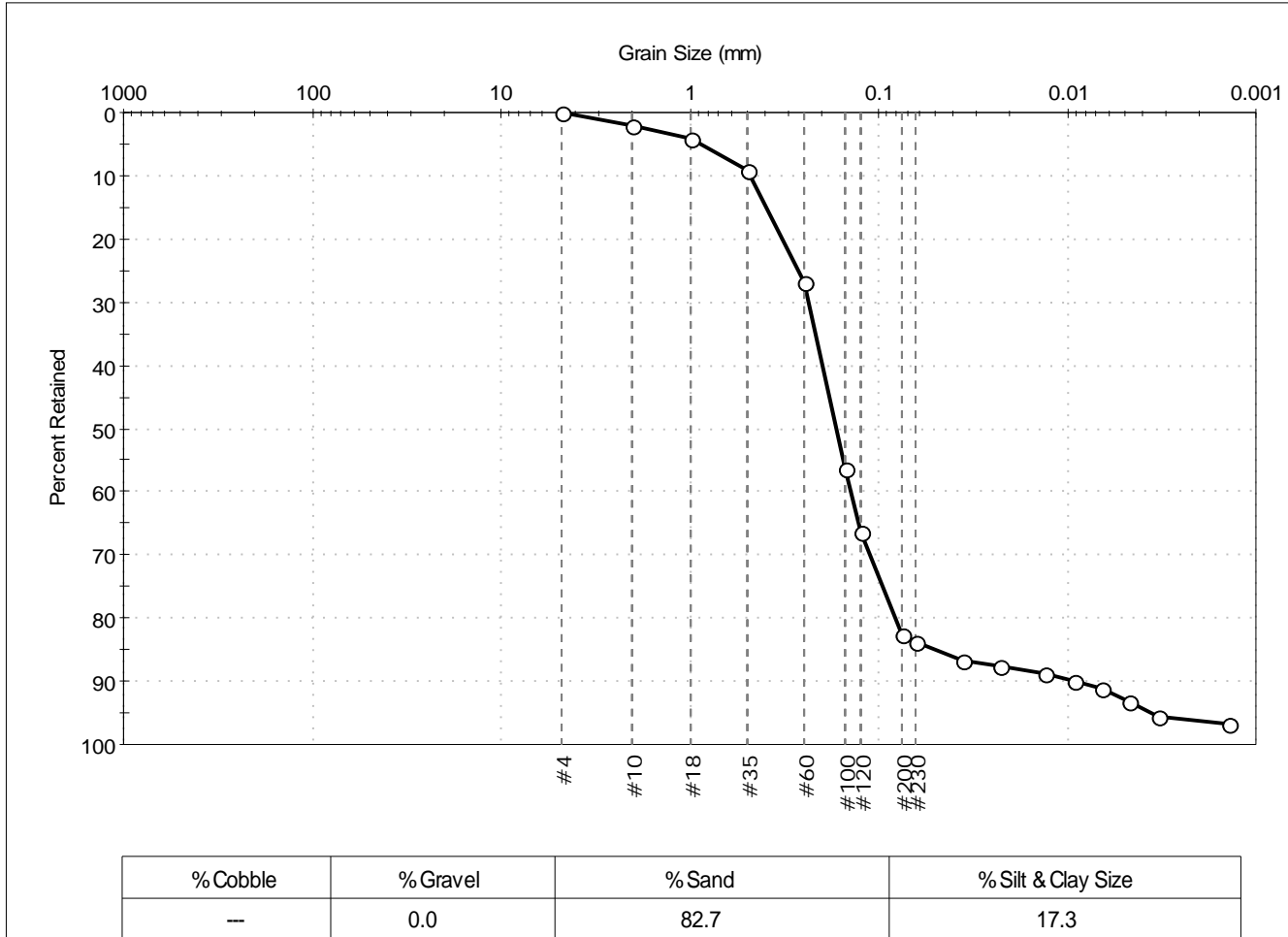
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 208-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0262	Test Date: 10/23/14	Test Id: 310482	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	4		
#35	0.50	9		
#60	0.25	27		
#100	0.15	56		
#120	0.12	66		
#200	0.075	83		
#230	0.063	84		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0358	87		
---	0.0227	88		
---	0.0131	89		
---	0.0093	90		
---	0.0066	91		
---	0.0047	93		
---	0.0033	96		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 0.3978 mm	D ₃₀ = 0.1115 mm
D ₆₀ = 0.1991 mm	D ₁₅ = 0.0502 mm
D ₅₀ = 0.1676 mm	D ₁₀ = 0.0092 mm
C _u = 21.641	C _c = 6.787

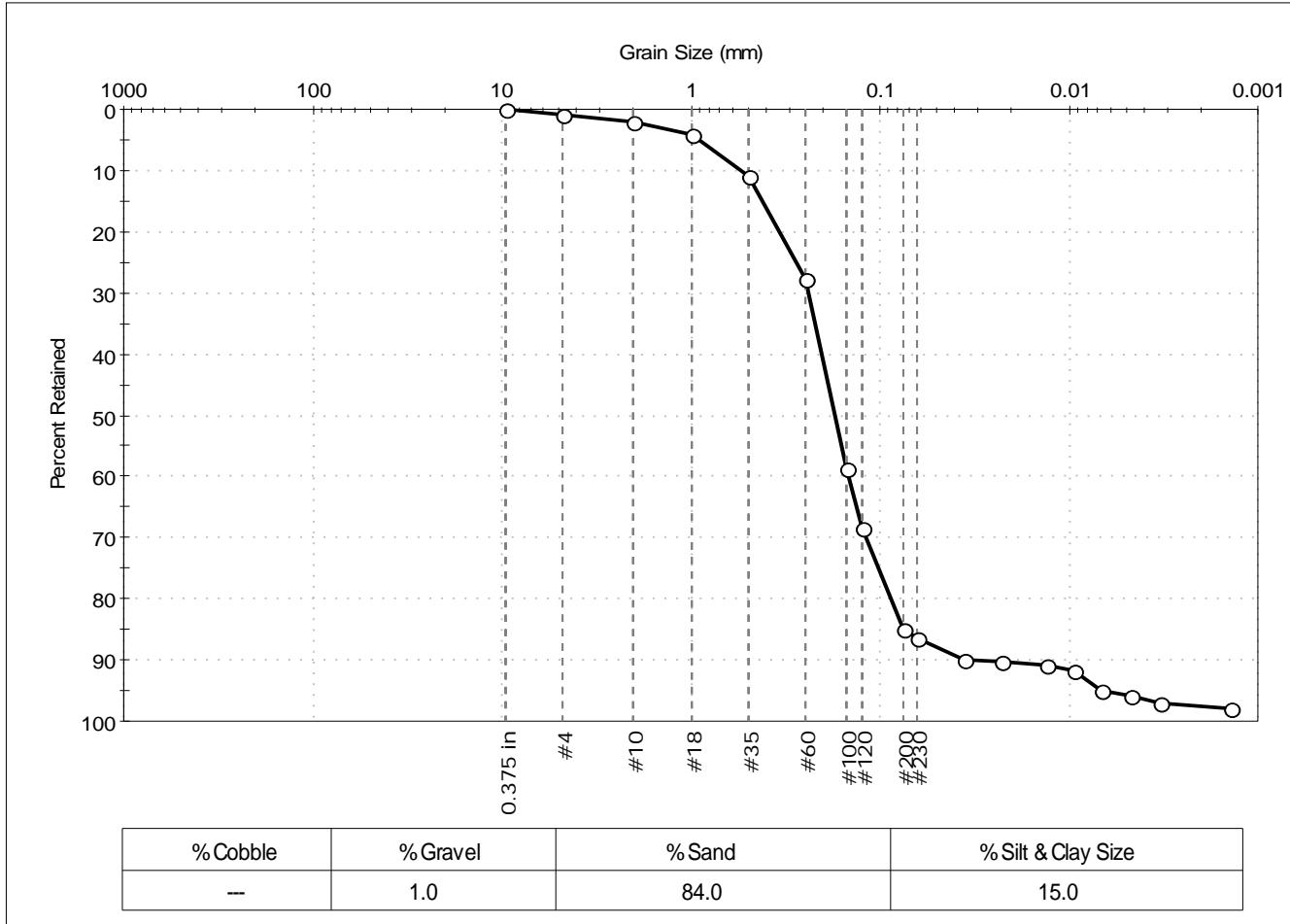
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	208-14LTM	Sample Type:	bag
Sample ID:	NBH14-0262DUP	Test Date:	10/27/14
Depth:	---	Test Id:	310483
Test Comment:	---		
Sample Description:	Wet, very dark gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	4		
#35	0.50	11		
#60	0.25	28		
#100	0.15	59		
#120	0.12	69		
#200	0.075	85		
#230	0.063	86		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0360	90		
---	0.0228	90		
---	0.0132	91		
---	0.0093	92		
---	0.0067	95		
---	0.0047	96		
---	0.0033	97		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 0.4205 mm	D ₃₀ = 0.1195 mm
D ₆₀ = 0.2040 mm	D ₁₅ = 0.0749 mm
D ₅₀ = 0.1729 mm	D ₁₀ = 0.0313 mm
C _u = 6.518	C _c = 2.236

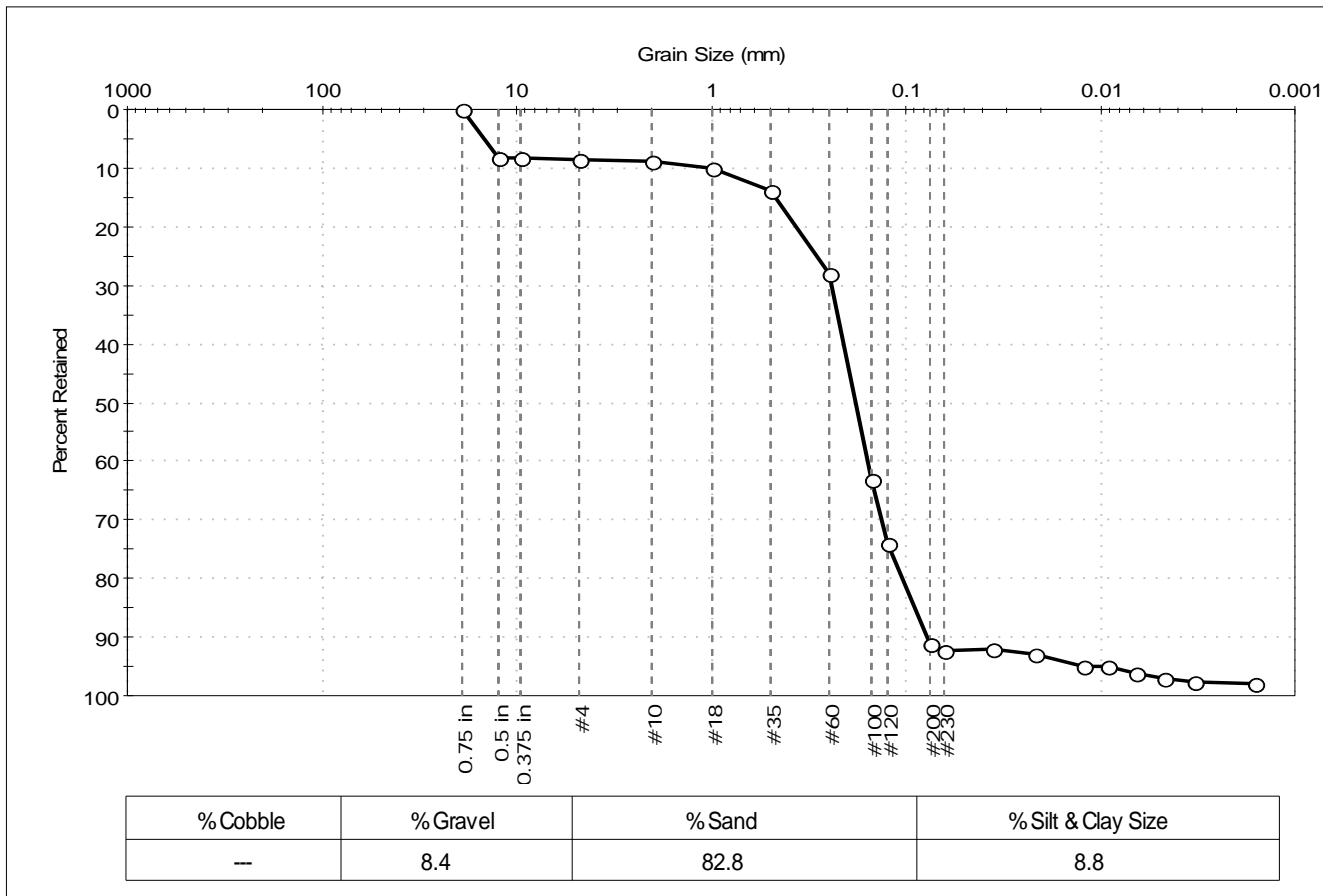
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 208-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0263	Test Date: 11/03/14	Test Id: 310484	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray sand with silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	8		
0.375 in	9.50	8		
#4	4.75	8		
#10	2.00	9		
#18	1.00	10		
#35	0.50	14		
#60	0.25	28		
#100	0.15	63		
#120	0.12	74		
#200	0.075	91.2		
#230	0.063	92		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0357	92		
---	0.0218	93		
---	0.0124	95		
---	0.0093	95		
---	0.0066	96		
---	0.0047	97		
---	0.0033	98		
---	0.0016	98		

<u>Coefficients</u>	
D ₈₅ = 0.4713 mm	D ₃₀ = 0.1336 mm
D ₆₀ = 0.2100 mm	D ₁₅ = 0.0902 mm
D ₅₀ = 0.1815 mm	D ₁₀ = 0.0778 mm
C _u = 2.699	C _c = 1.092

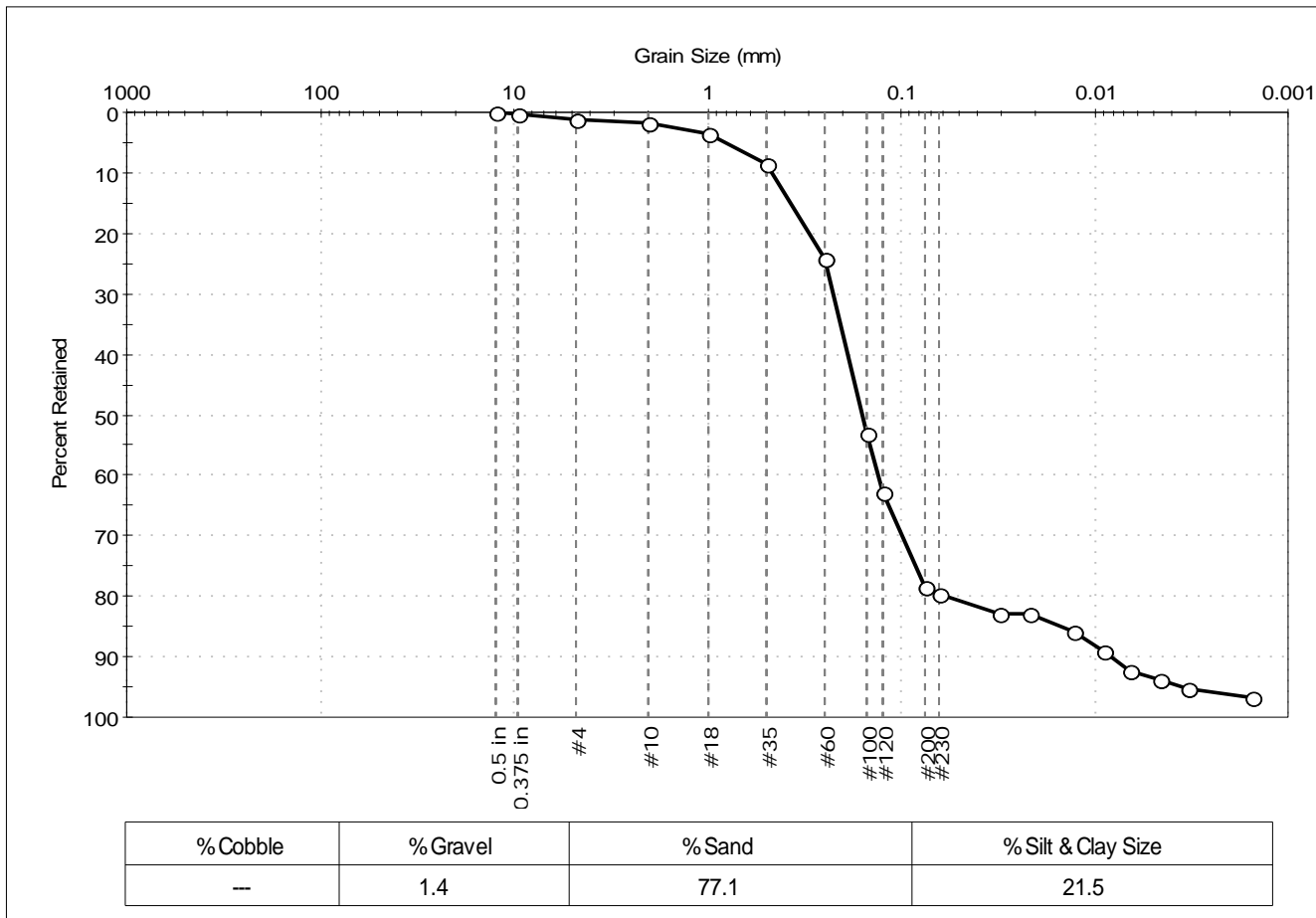
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ROUNDED	
Sand/Gravel Hardness : HARD	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 208-14LTM	Sample Type: bag
Sample ID: NBH14-0264	Test Date: 11/03/14
Depth: ---	Test Id: 310481
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark olive gray silty sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	4		
#35	0.50	8		
#60	0.25	24		
#100	0.15	53		
#120	0.12	63		
#200	0.075	78		
#230	0.063	80		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0308	83		
---	0.0218	83		
---	0.0128	86		
---	0.0091	89		
---	0.0065	92		
---	0.0046	94		
---	0.0033	95		
---	0.0015	97		

Coefficients

D ₈₅ = 0.3752 mm	D ₃₀ = 0.0987 mm
D ₆₀ = 0.1892 mm	D ₁₅ = 0.0151 mm
D ₅₀ = 0.1584 mm	D ₁₀ = 0.0082 mm
C _u = 23.073	C _c = 6.279

Classification

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

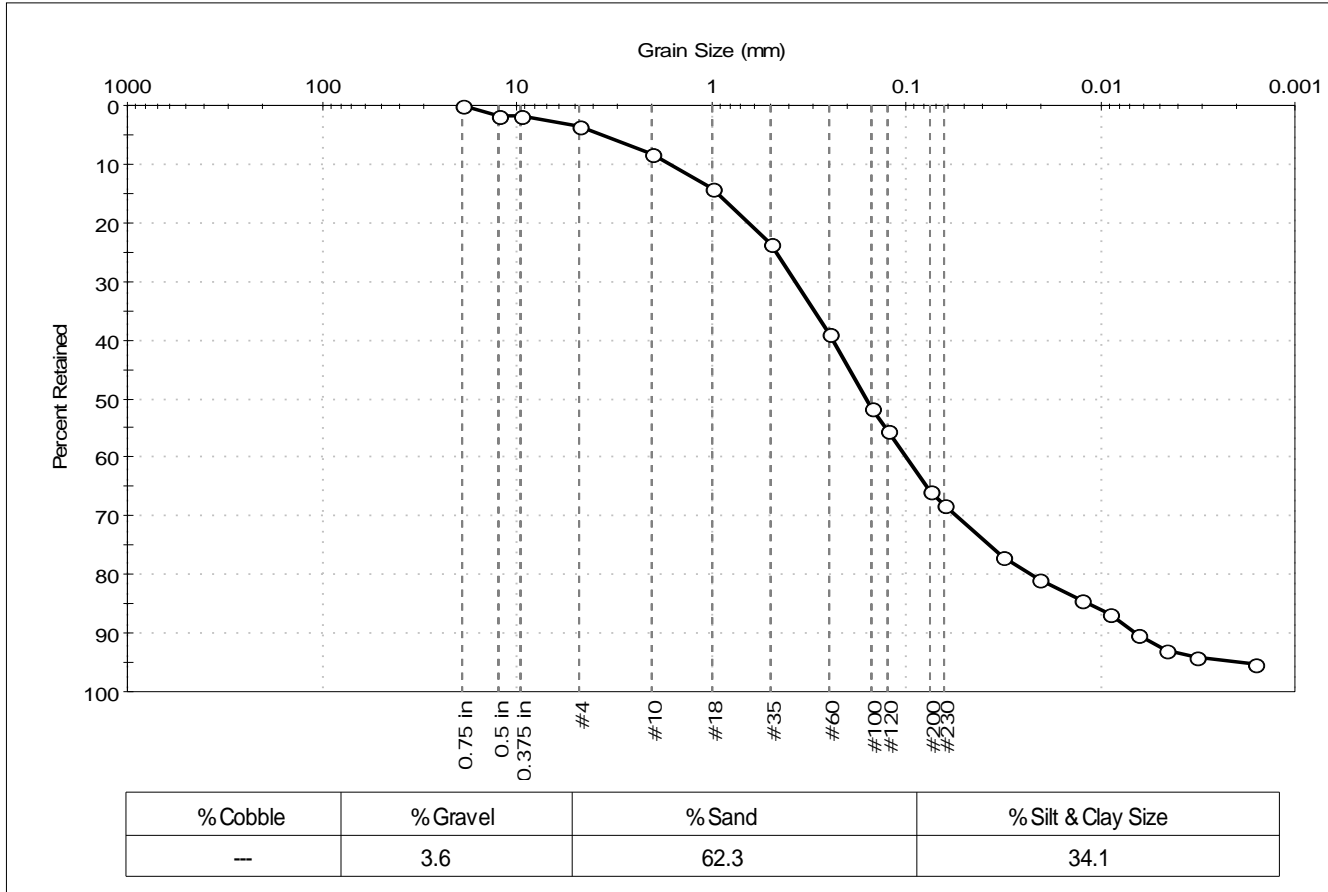
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 207-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0265	Test Date: 11/03/14	Test Id: 310485	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	2		
0.375 in	9.50	2		
#4	4.75	4		
#10	2.00	8		
#18	1.00	14		
#35	0.50	24		
#60	0.25	39		
#100	0.15	51		
#120	0.12	55		
#200	0.075	66		
#230	0.063	68		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	77		
---	0.0207	81		
---	0.0124	84		
---	0.0089	87		
---	0.0064	90		
---	0.0046	93		
---	0.0032	94		
---	0.0016	95		

<u>Coefficients</u>	
D ₈₅ = 0.9439 mm	D ₃₀ = 0.0543 mm
D ₆₀ = 0.2398 mm	D ₁₅ = 0.0114 mm
D ₅₀ = 0.1594 mm	D ₁₀ = 0.0066 mm
C _u = 36.333	C _c = 1.863

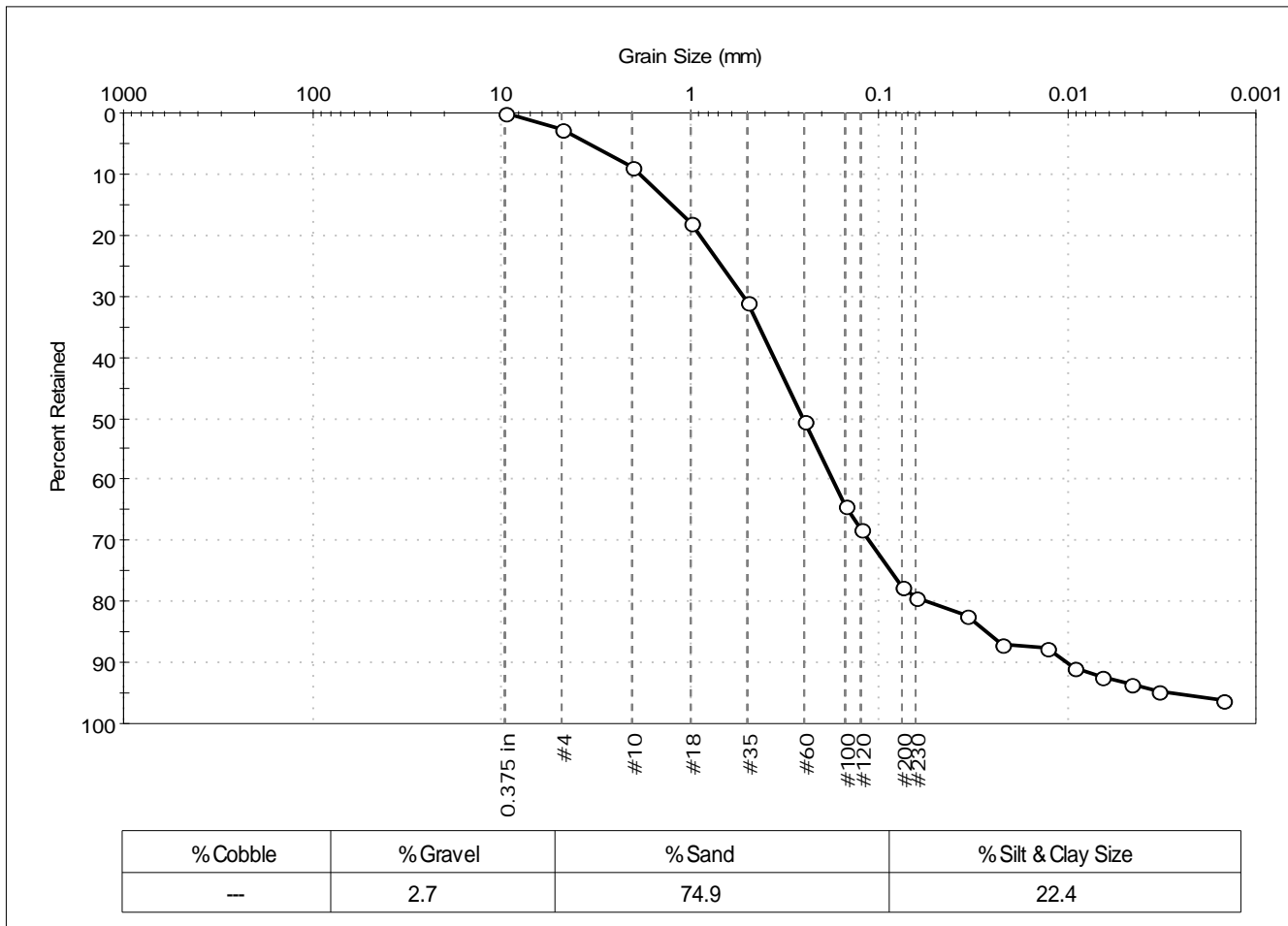
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 207-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0266
 Test Date: 11/06/14
 Checked By: jdt
 Depth: ---
 Test Id: 310486
 Test Comment: ---
 Sample Description: Wet, olive gray silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	9		
#18	1.00	18		
#35	0.50	31		
#60	0.25	50		
#100	0.15	64		
#120	0.12	68		
#200	0.075	78		
#230	0.063	79		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0339	82		
---	0.0220	87		
---	0.0128	88		
---	0.0091	91		
---	0.0065	92		
---	0.0047	93		
---	0.0033	95		
---	0.0015	96		

<u>Coefficients</u>	
D ₈₅ = 1.2573 mm	D ₃₀ = 0.1125 mm
D ₆₀ = 0.3629 mm	D ₁₅ = 0.0265 mm
D ₅₀ = 0.2531 mm	D ₁₀ = 0.0100 mm
C _u = 36.290	C _c = 3.488

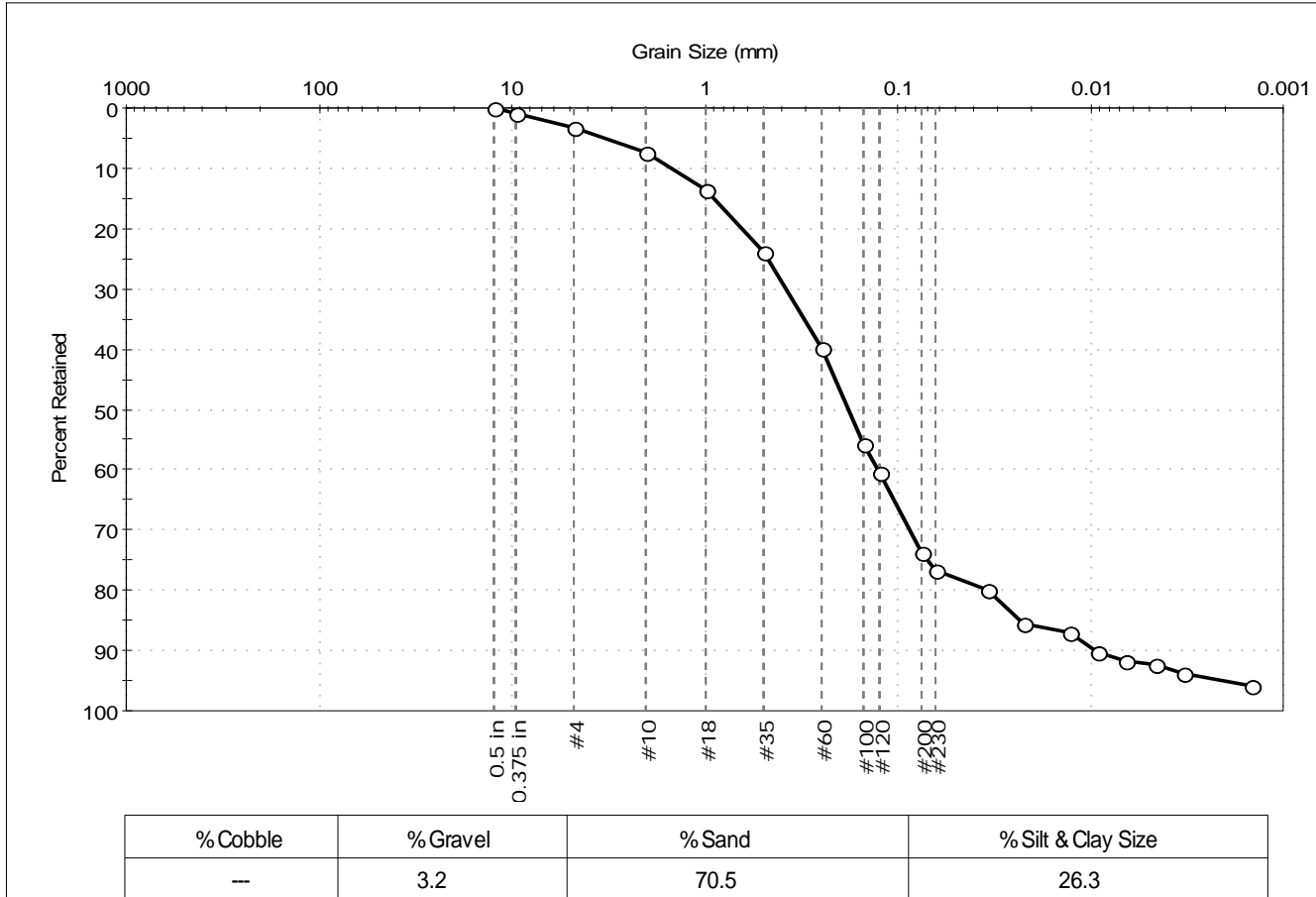
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 207-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0267	Test Date: 11/07/14	Depth: ---	Test Id: 310487
Test Comment: ---	Sample Description: Moist, dark olive gray silty sand		
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	3		
#10	2.00	7		
#18	1.00	14		
#35	0.50	24		
#60	0.25	40		
#100	0.15	56		
#120	0.12	61		
#200	0.075	74		
#230	0.063	77		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	80		
---	0.0221	86		
---	0.0128	87		
---	0.0092	90		
---	0.0065	92		
---	0.0046	92		
---	0.0033	94		
---	0.0015	96		

Coefficients

D ₈₅ = 0.9077 mm	D ₃₀ = 0.0866 mm
D ₆₀ = 0.2487 mm	D ₁₅ = 0.0230 mm
D ₅₀ = 0.1809 mm	D ₁₀ = 0.0095 mm
C _u = 26.179	C _c = 3.174

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

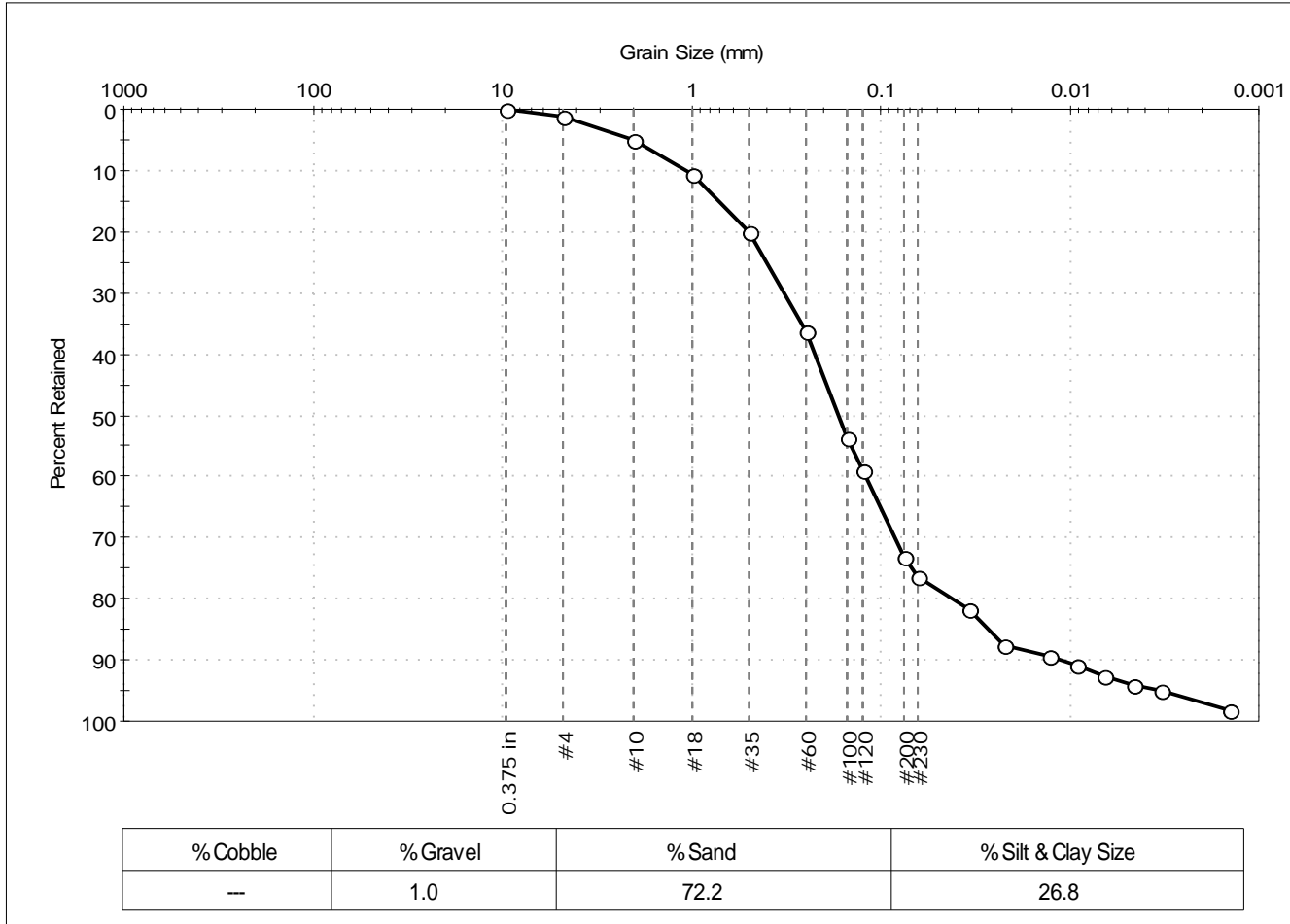
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
 Sand/Gravel Hardness : HARD
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	207-14LTM	Sample Type:	bag
Sample ID:	NBH14-0268	Test Date:	11/13/14
Depth:	---	Test Id:	310488
Test Comment:	---		
Sample Description:	Moist, very dark gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	5		
#18	1.00	10		
#35	0.50	20		
#60	0.25	36		
#100	0.15	54		
#120	0.12	59		
#200	0.075	73		
#230	0.063	76		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	82		
---	0.0222	88		
---	0.0129	89		
---	0.0092	91		
---	0.0065	93		
---	0.0046	94		
---	0.0033	95		
---	0.0014	98		

<u>Coefficients</u>	
D ₈₅ = 0.7238 mm	D ₃₀ = 0.0842 mm
D ₆₀ = 0.2247 mm	D ₁₅ = 0.0269 mm
D ₅₀ = 0.1674 mm	D ₁₀ = 0.0111 mm
C _u = 20.243	C _c = 2.842

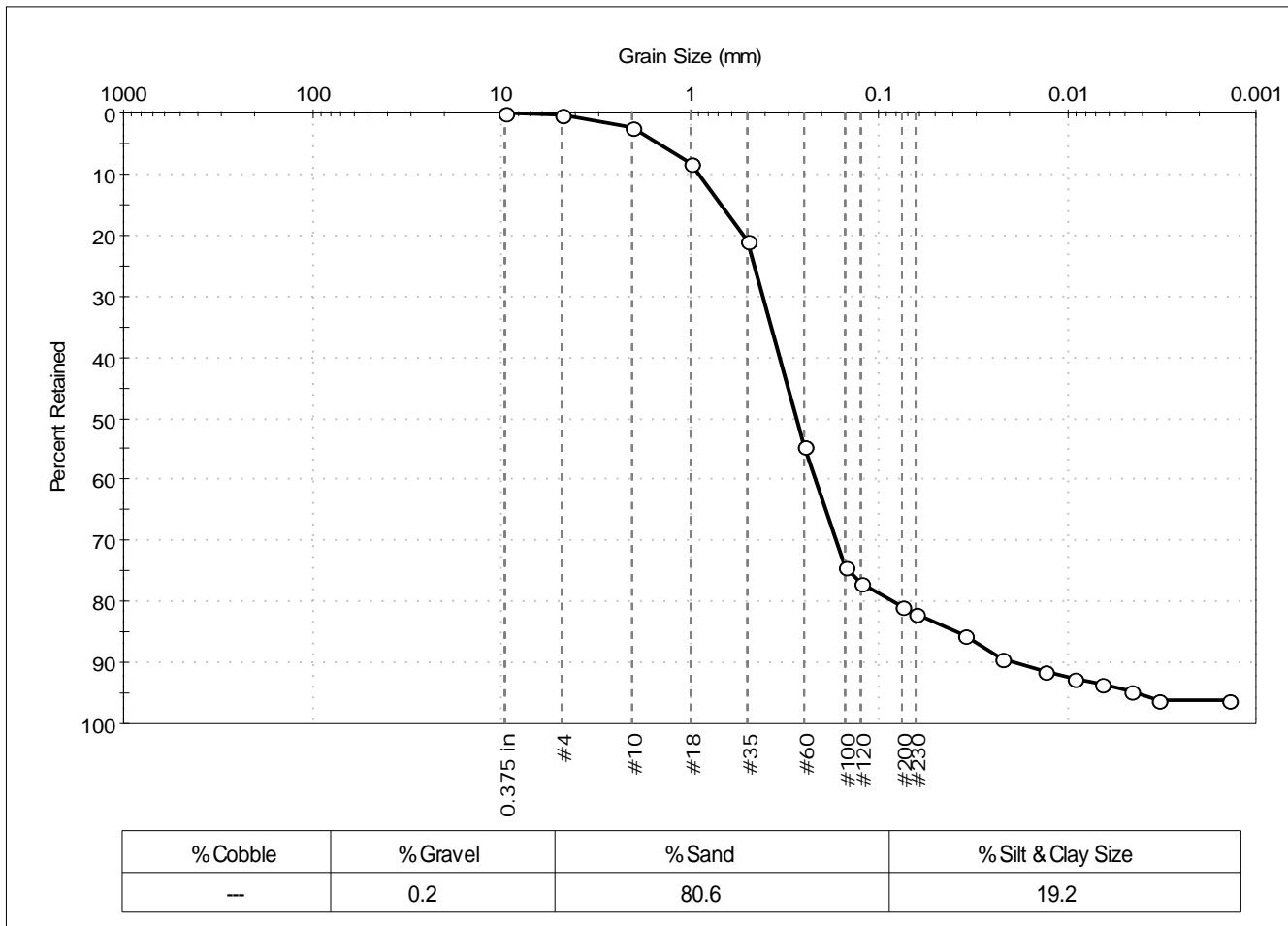
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Gravel and Sand (A-2-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	332-14LTM	Sample Type:	bag
Sample ID:	NBH14-0269	Test Date:	10/29/14
Depth:	---	Test Id:	310489
Test Comment:	---		
Sample Description:	Wet, olive brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	0		
#10	2.00	2		
#18	1.00	8		
#35	0.50	21		
#60	0.25	54		
#100	0.15	74		
#120	0.12	77		
#200	0.075	81		
#230	0.063	82		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0348	86		
---	0.0223	89		
---	0.0131	91		
---	0.0093	93		
---	0.0066	93		
---	0.0047	95		
---	0.0033	96		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.6930 mm	D ₃₀ = 0.1673 mm
D ₆₀ = 0.3372 mm	D ₁₅ = 0.0380 mm
D ₅₀ = 0.2742 mm	D ₁₀ = 0.0193 mm
C _u = 17.472	C _c = 4.301

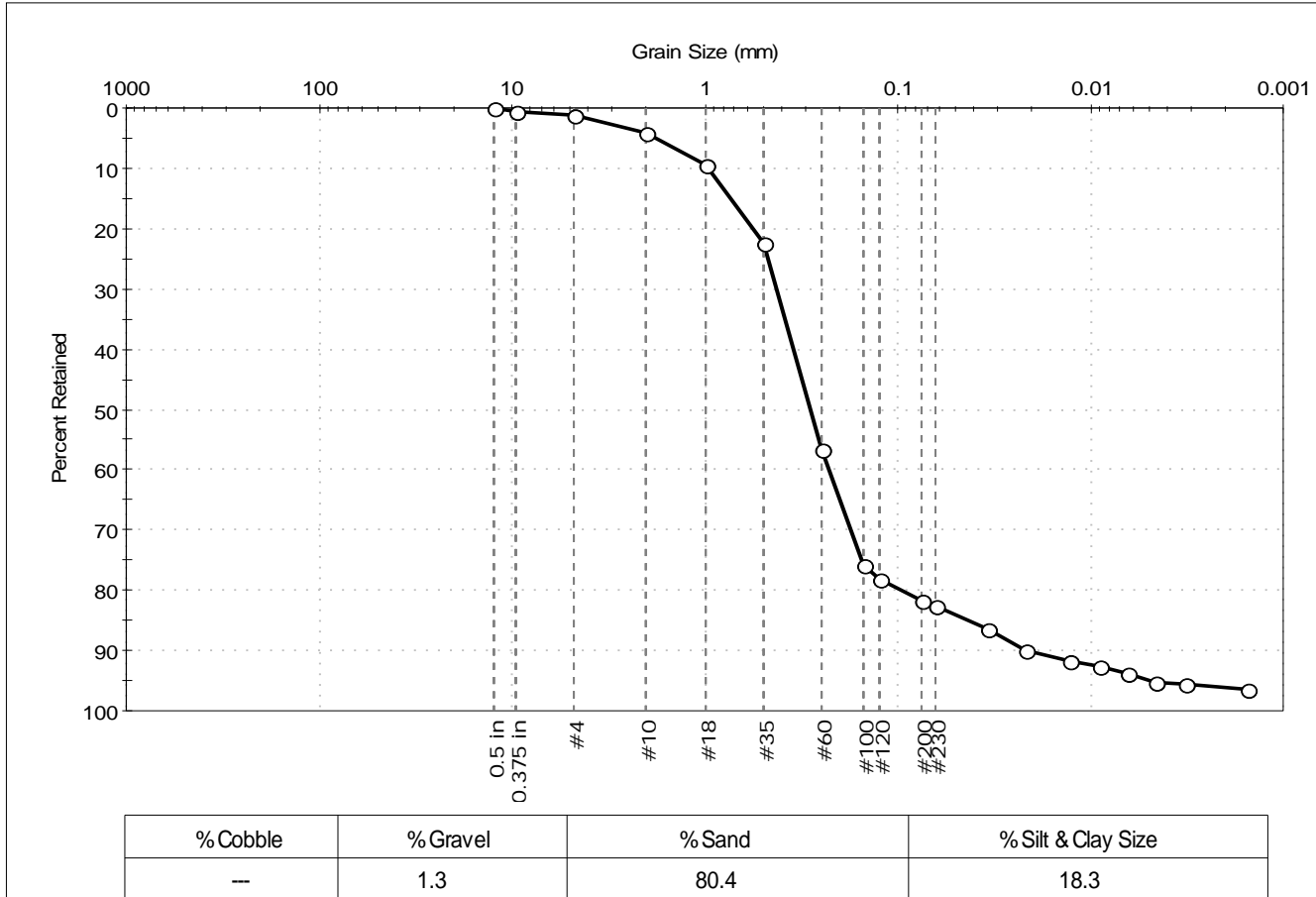
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	332-14LTM	Sample Type:	bag
Sample ID:	NBH14-0270	Test Date:	11/03/14
Depth:	---	Test Id:	310490
Test Comment:	---		
Sample Description:	Wet, olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	1		
#4	4.75	1		
#10	2.00	4		
#18	1.00	10		
#35	0.50	23		
#60	0.25	57		
#100	0.15	76		
#120	0.12	78		
#200	0.075	82		
#230	0.063	83		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	86		
---	0.0215	90		
---	0.0128	92		
---	0.0091	92		
---	0.0065	94		
---	0.0046	95		
---	0.0033	96		
---	0.0015	96		

Coefficients

D ₈₅ = 0.7474 mm	D ₃₀ = 0.1752 mm
D ₆₀ = 0.3510 mm	D ₁₅ = 0.0427 mm
D ₅₀ = 0.2867 mm	D ₁₀ = 0.0205 mm
C _u = 17.122	C _c = 4.266

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

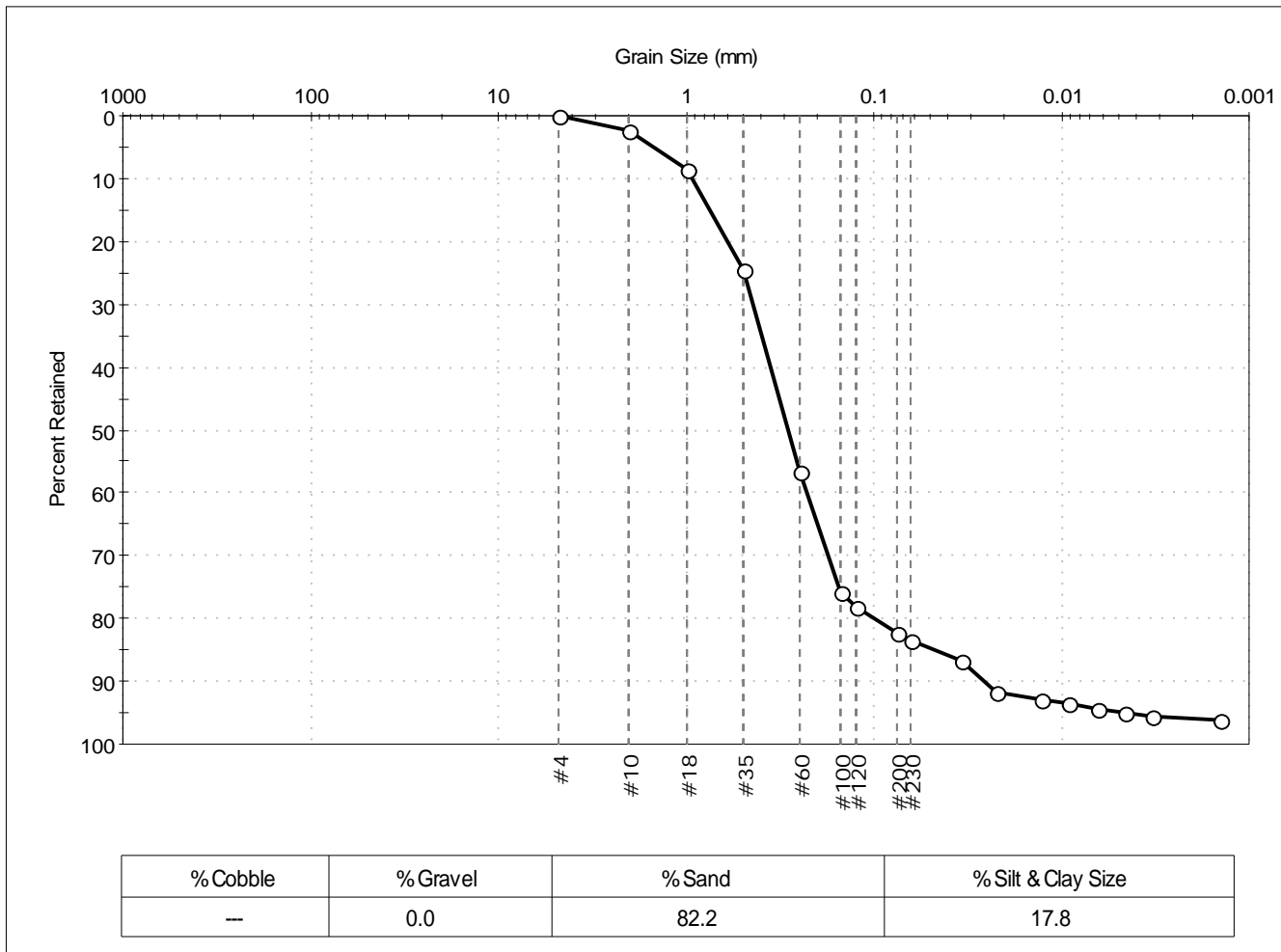
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #200 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	332-14LTM	Sample Type:	bag
Sample ID:	NBH14-0271	Test Date:	10/30/14
Depth:	---	Test Id:	310491
Test Comment:	---		
Sample Description:	Wet, olive brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	9		
#35	0.50	24		
#60	0.25	56		
#100	0.15	76		
#120	0.12	78		
#200	0.075	82		
#230	0.063	83		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0342	87		
---	0.0221	92		
---	0.0129	93		
---	0.0091	93		
---	0.0065	95		
---	0.0046	95		
---	0.0033	96		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.7567 mm	D ₃₀ = 0.1745 mm
D ₆₀ = 0.3569 mm	D ₁₅ = 0.0473 mm
D ₅₀ = 0.2876 mm	D ₁₀ = 0.0258 mm
C _u = 13.833	C _c = 3.307

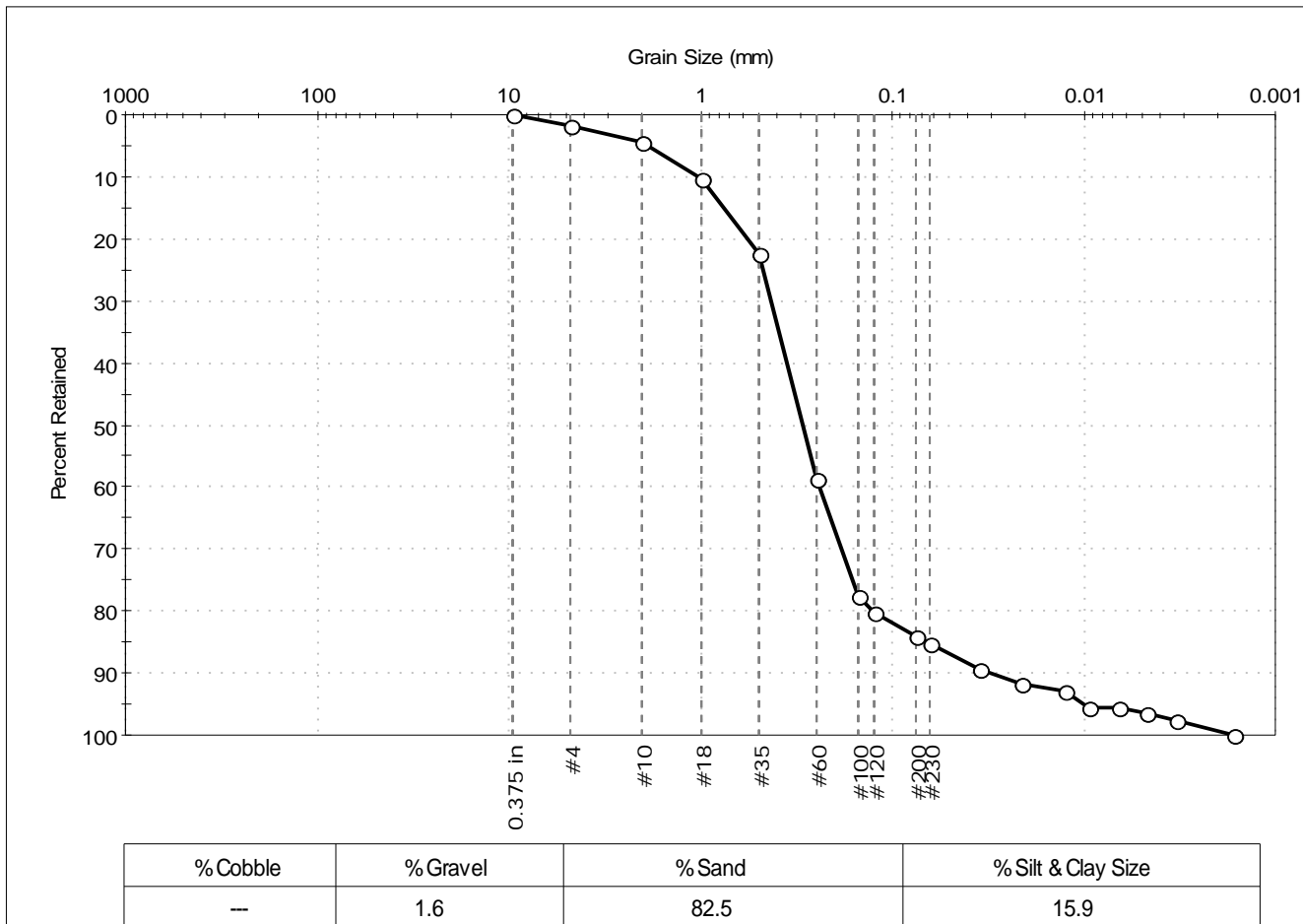
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	332-14LTM	Sample Type:	bag
Sample ID:	NBH14-0272	Test Date:	11/04/14
Depth:	---	Test Id:	310492
Test Comment:	---		
Sample Description:	Wet, olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	4		
#18	1.00	10		
#35	0.50	23		
#60	0.25	59		
#100	0.15	78		
#120	0.12	80		
#200	0.075	84		
#230	0.063	85		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0346	89		
---	0.0210	92		
---	0.0125	93		
---	0.0094	96		
---	0.0066	96		
---	0.0047	96		
---	0.0033	98		
---	0.0017	100		

<u>Coefficients</u>	
D ₈₅ = 0.7646 mm	D ₃₀ = 0.1840 mm
D ₆₀ = 0.3575 mm	D ₁₅ = 0.0642 mm
D ₅₀ = 0.2950 mm	D ₁₀ = 0.0306 mm
C _u = 11.683	C _c = 3.095

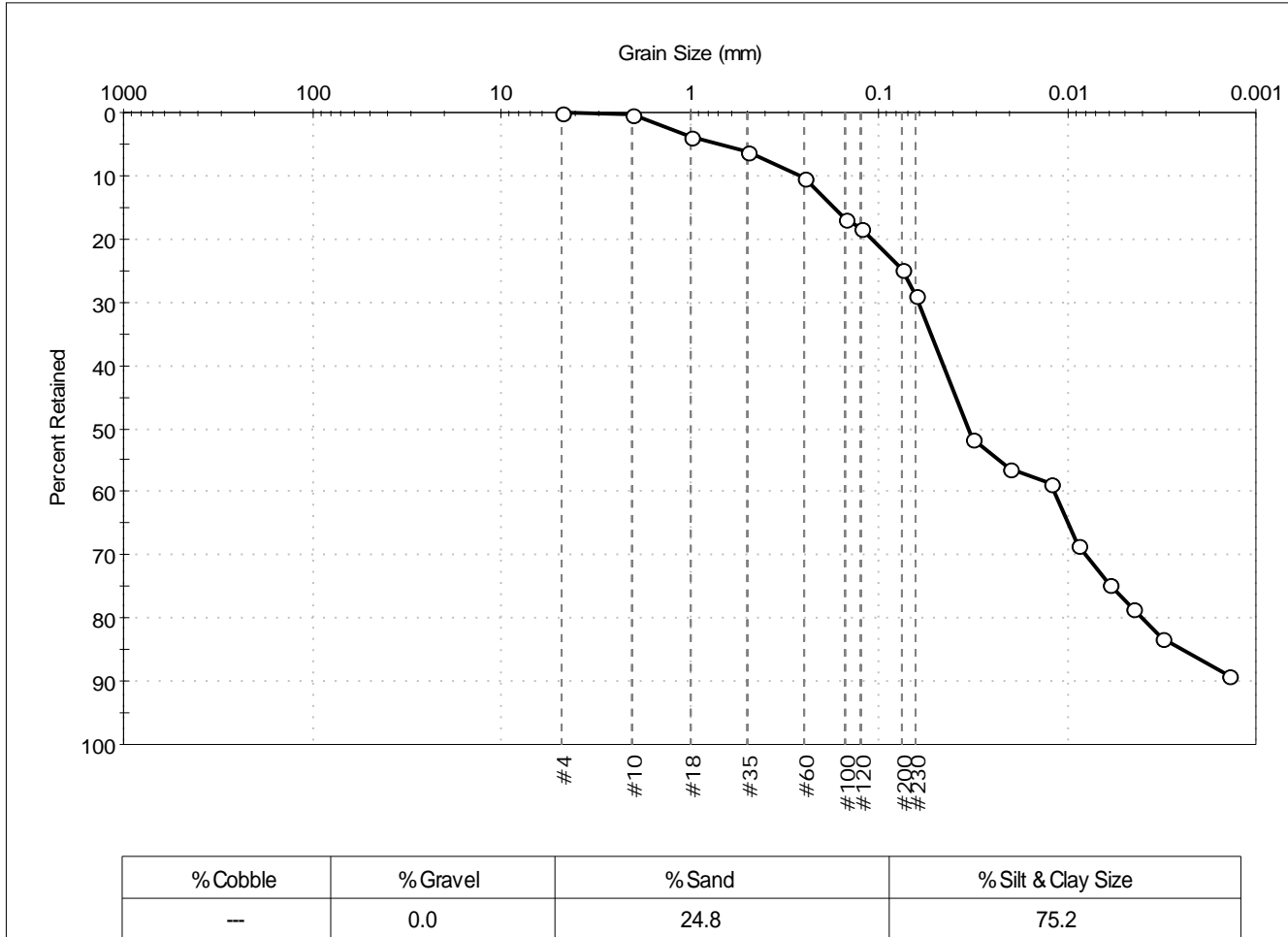
<u>Classification</u>	
ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 338-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0273	Test Date: 11/04/14	Test Id: 310493	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	4		
#35	0.50	6		
#60	0.25	10		
#100	0.15	17		
#120	0.12	18		
#200	0.075	25		
#230	0.063	29		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0319	52		
---	0.0202	56		
---	0.0124	59		
---	0.0089	68		
---	0.0060	75		
---	0.0045	78		
---	0.0032	83		
---	0.0014	89		

Coefficients	
D ₈₅ = 0.1723 mm	D ₃₀ = 0.0080 mm
D ₆₀ = 0.0452 mm	D ₁₅ = 0.0025 mm
D ₅₀ = 0.0334 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

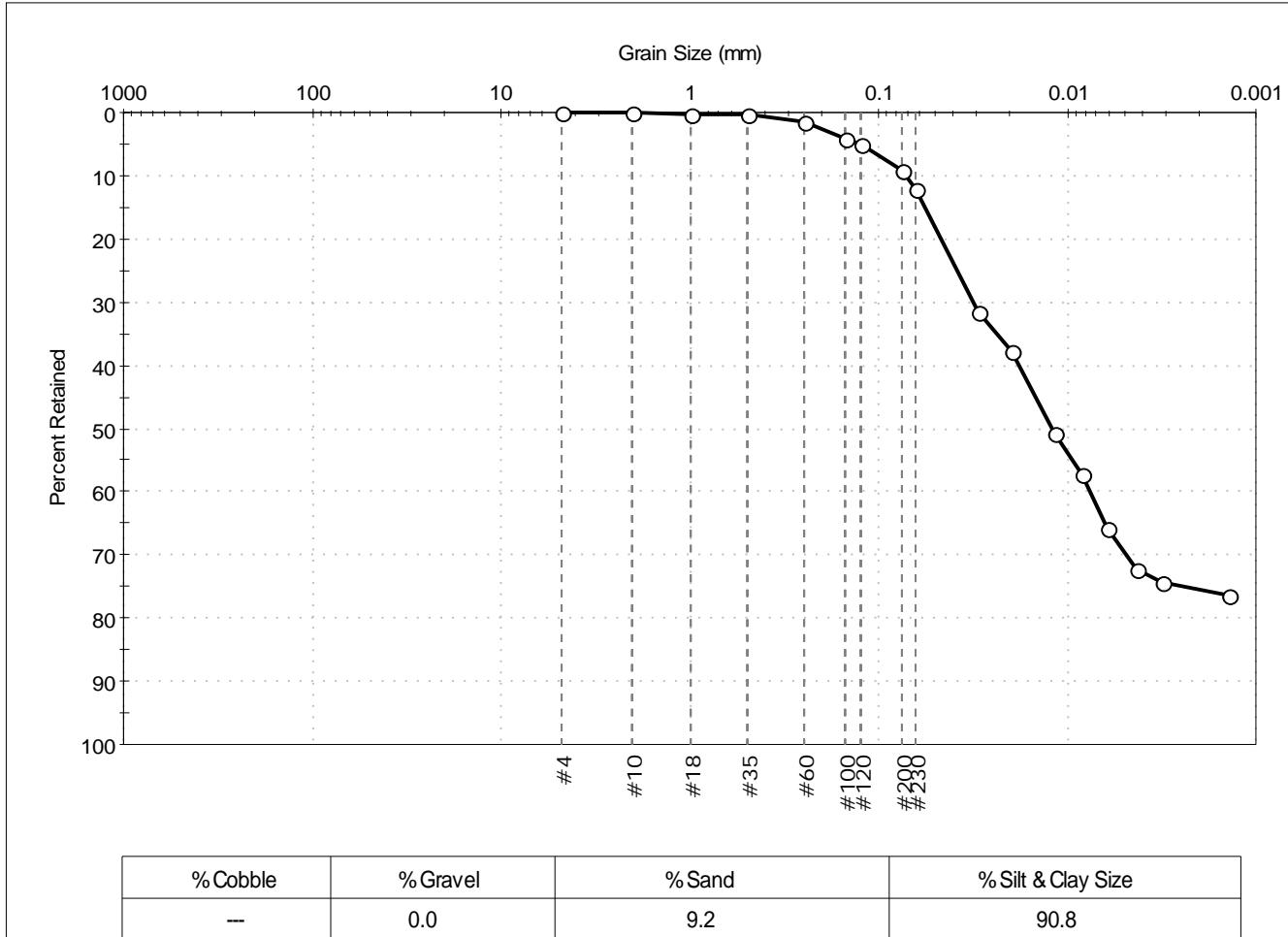
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Specific Gravity	: 2.65
Separation of Sample	: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 338-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0274	Test Date: 11/03/14	Test Id: 310494	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive brown silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	0		
#60	0.25	1		
#100	0.15	4		
#120	0.12	5		
#200	0.075	9		
#230	0.063	12		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0294	31		
---	0.0198	38		
---	0.0117	51		
---	0.0083	57		
---	0.0061	66		
---	0.0043	72		
---	0.0031	74		
---	0.0014	76		

Coefficients	
D ₈₅ = 0.0562 mm	D ₃₀ = 0.0048 mm
D ₆₀ = 0.0181 mm	D ₁₅ = N/A
D ₅₀ = 0.0121 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

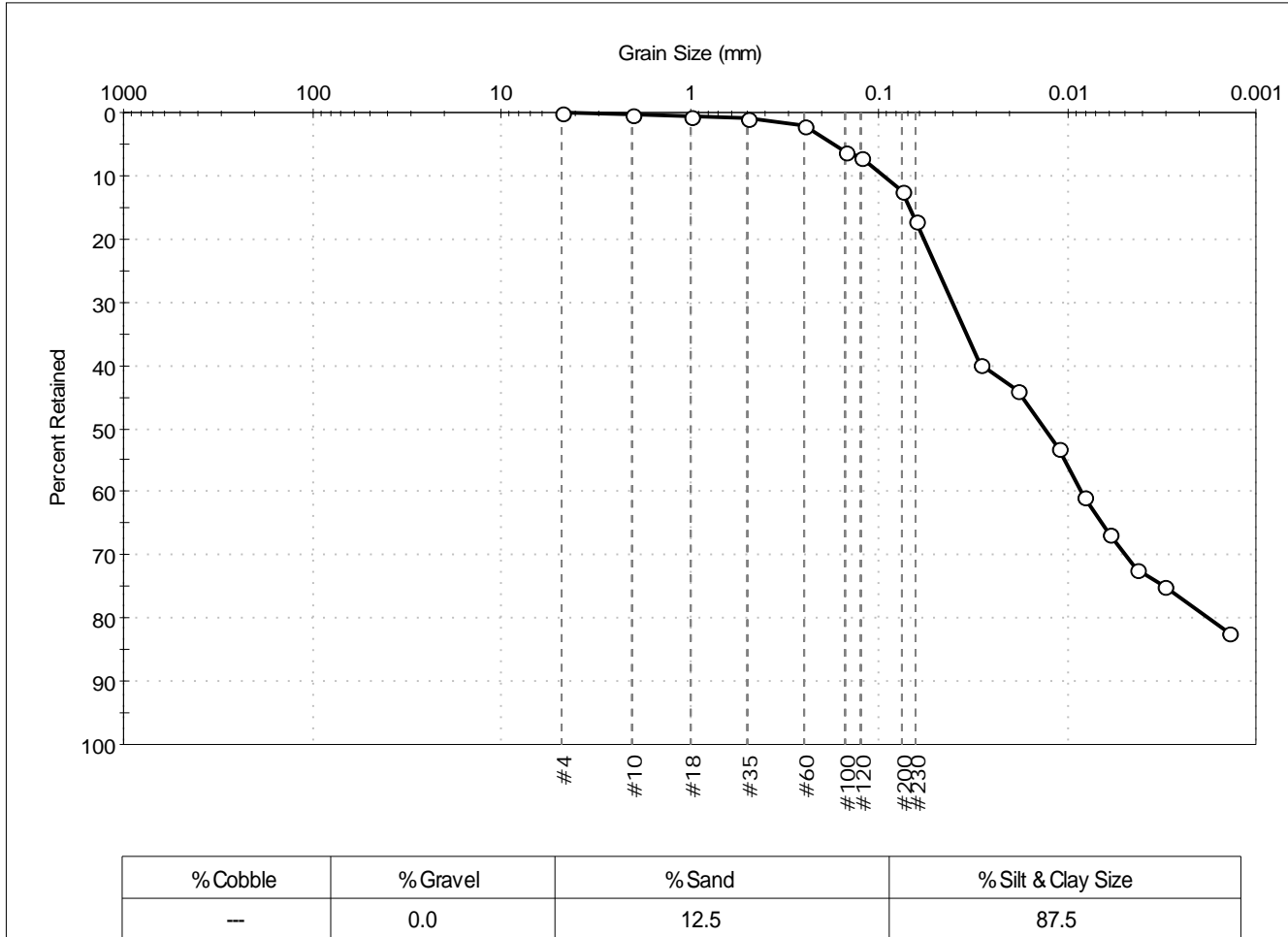
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape	: ---
Sand/Gravel Hardness	: ---
Dispersion Device	: Apparatus A - Mech Mixer
Dispersion Period	: 1 minute
Specific Gravity	: 2.65
Separation of Sample	: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 338-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0275	Test Date: 10/30/14	Test Id: 310495	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	2		
#100	0.15	6		
#120	0.12	7		
#200	0.075	13		
#230	0.063	17		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0288	40		
---	0.0186	44		
---	0.0112	53		
---	0.0082	61		
---	0.0059	67		
---	0.0043	72		
---	0.0031	75		
---	0.0014	82		

<u>Coefficients</u>	
D ₈₅ = 0.0682 mm	D ₃₀ = 0.0049 mm
D ₆₀ = 0.0281 mm	D ₁₅ = N/A
D ₅₀ = 0.0133 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

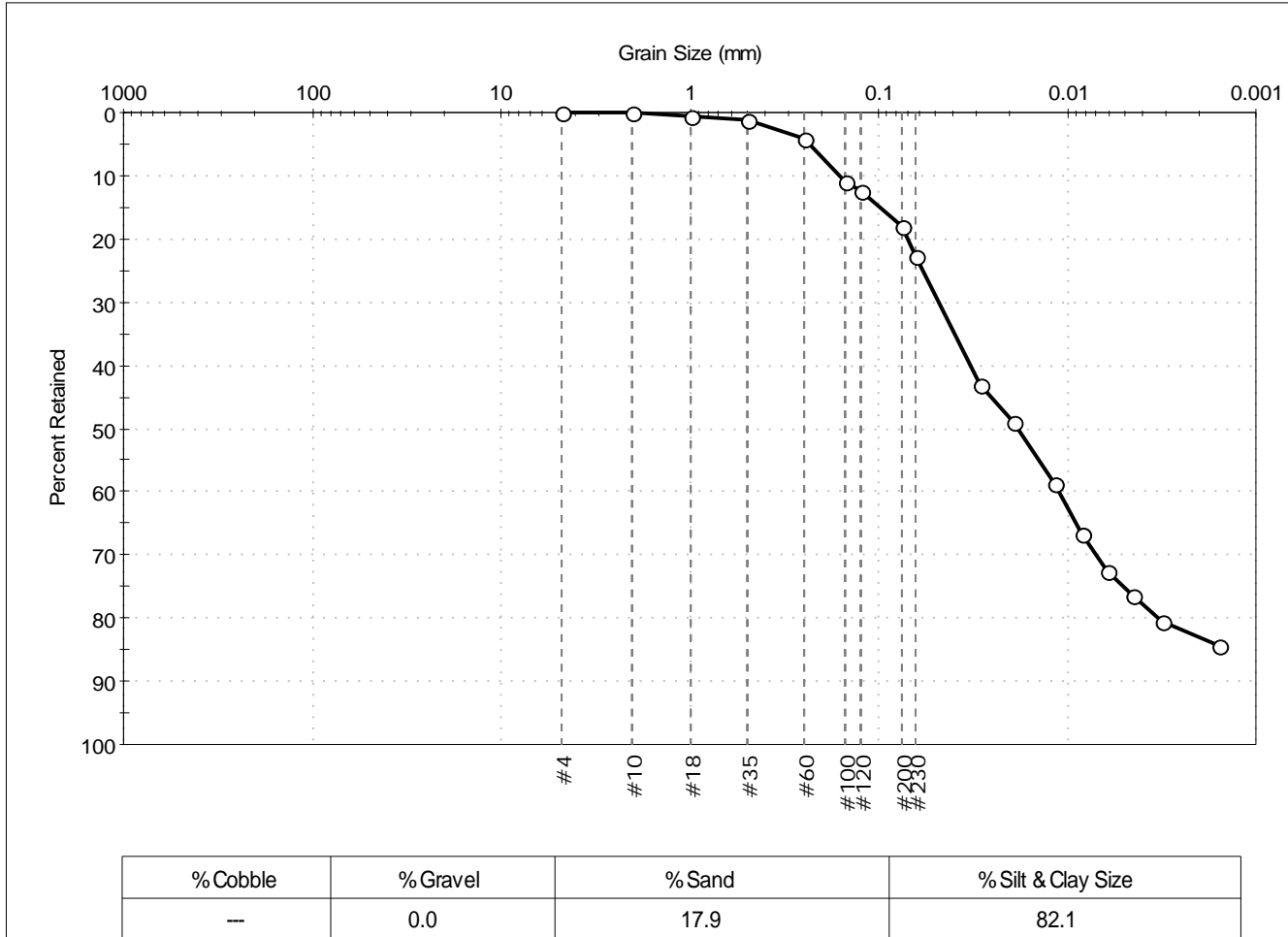
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 338-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0276	Test Date: 11/03/14	Test Id: 310496	
Depth: ---			
Test Comment: ---			
Sample Description: Wet, dark olive gray silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	1		
#60	0.25	4		
#100	0.15	11		
#120	0.12	12		
#200	0.075	18		
#230	0.063	23		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0292	43		
---	0.0193	49		
---	0.0116	59		
---	0.0083	67		
---	0.0062	73		
---	0.0044	76		
---	0.0032	80		
---	0.0016	84		

<u>Coefficients</u>	
D ₈₅ = 0.0977 mm	D ₃₀ = 0.0070 mm
D ₆₀ = 0.0328 mm	D ₁₅ = N/A
D ₅₀ = 0.0183 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

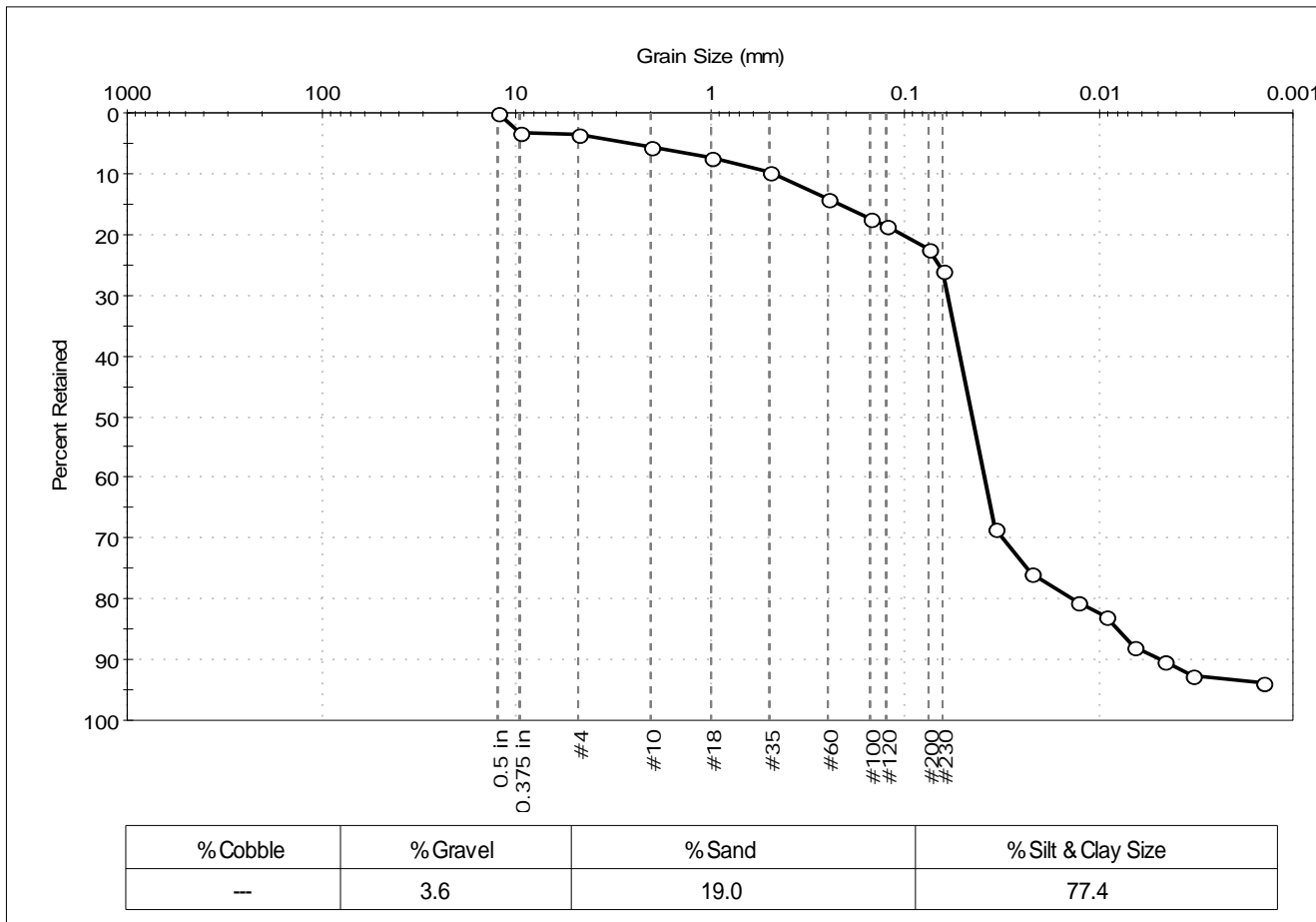
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 331-14LTM	Sample Type: bag
Sample ID: NBH14-0277	Test Date: 11/19/14
Depth: ---	Test Id: 310497
Test Comment: ---	Tested By: jbr
Sample Description: Wet, olive gray silt with sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	3		
#4	4.75	4		
#10	2.00	6		
#18	1.00	7		
#35	0.50	10		
#60	0.25	14		
#100	0.15	17		
#120	0.12	19		
#200	0.075	23		
#230	0.063	26		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0341	68		
---	0.0222	76		
---	0.0129	81		
---	0.0092	83		
---	0.0065	88		
---	0.0046	90		
---	0.0033	93		
---	0.0014	94		

Coefficients

D ₈₅ = 0.2208 mm	D ₃₀ = 0.0311 mm
D ₆₀ = 0.0515 mm	D ₁₅ = 0.0080 mm
D ₅₀ = 0.0446 mm	D ₁₀ = 0.0048 mm
C _u = 10.729	C _c = 3.913

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

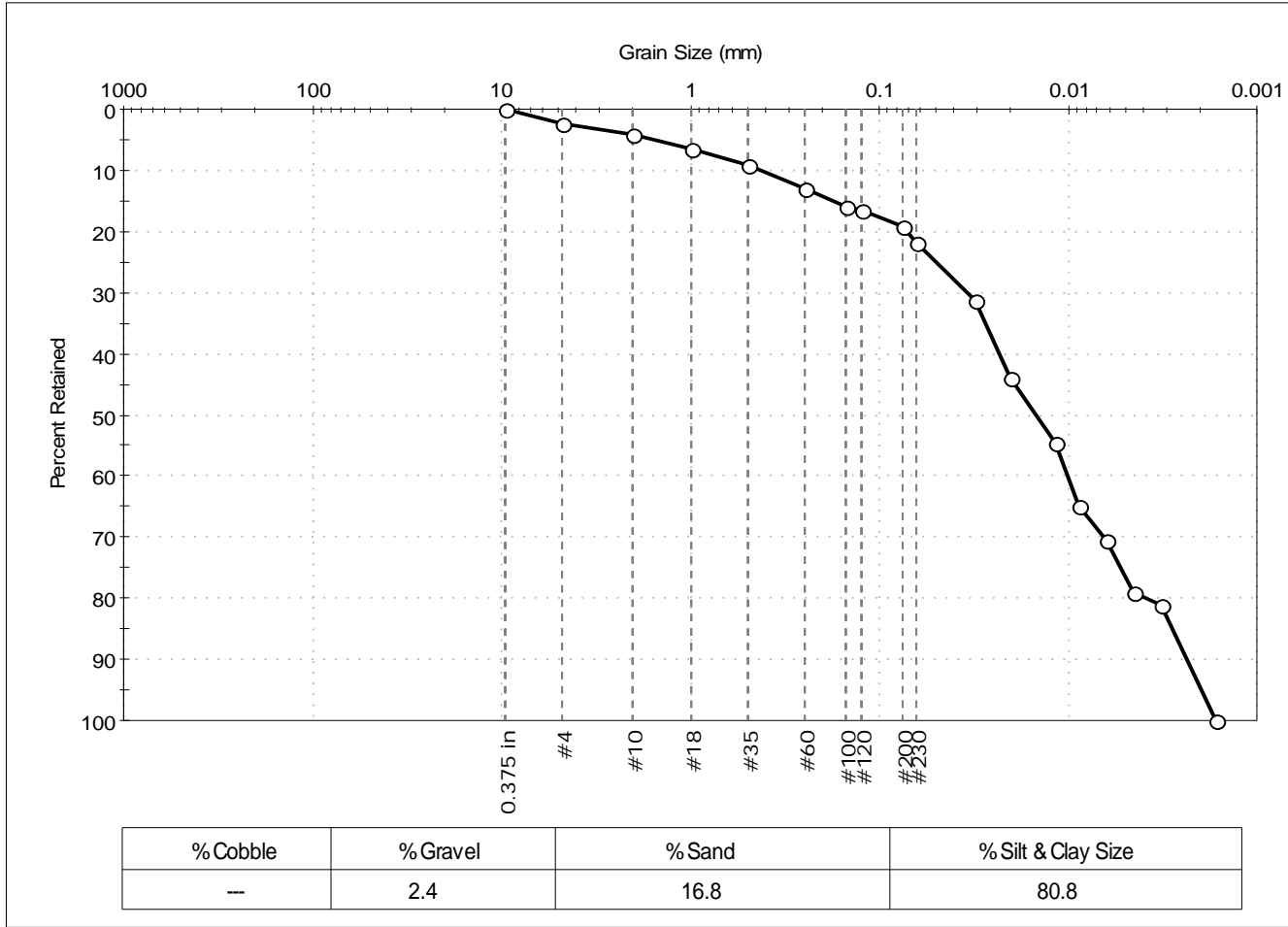
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 331-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0278	Test Date: 11/04/14	Test Id: 310498	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	4		
#18	1.00	6		
#35	0.50	9		
#60	0.25	13		
#100	0.15	16		
#120	0.12	17		
#200	0.075	19		
#230	0.063	22		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0312	31		
---	0.0201	44		
---	0.0117	54		
---	0.0087	65		
---	0.0062	71		
---	0.0045	79		
---	0.0032	81		
---	0.0017	100		

<u>Coefficients</u>	
D ₈₅ = 0.1734 mm	D ₃₀ = 0.0064 mm
D ₆₀ = 0.0231 mm	D ₁₅ = 0.0028 mm
D ₅₀ = 0.0147 mm	D ₁₀ = 0.0024 mm
C _u = 9.625	C _c = 0.739

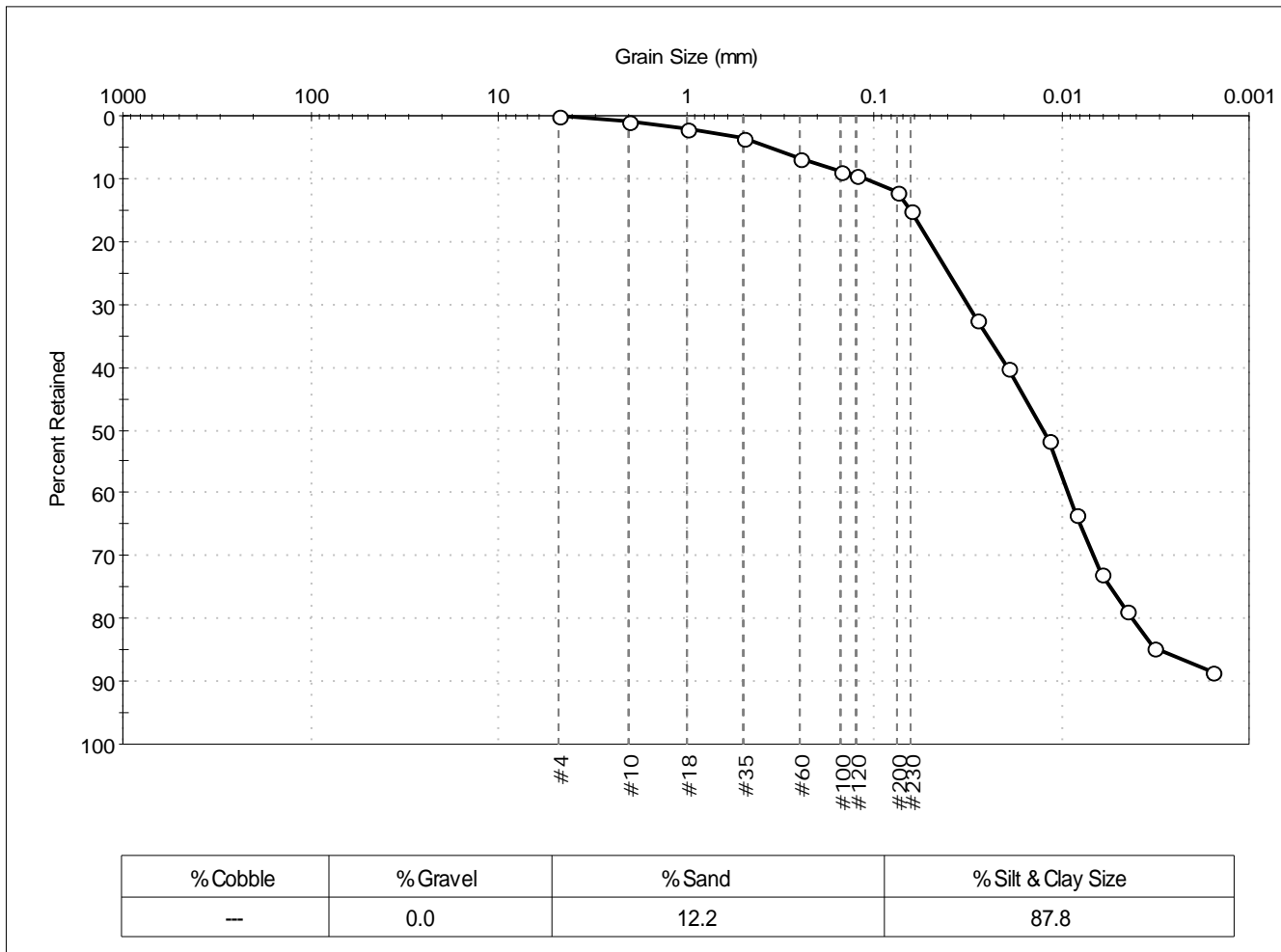
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 331-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0279	Test Date: 11/03/14	Test Id: 310499	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	4		
#60	0.25	7		
#100	0.15	9		
#120	0.12	9		
#200	0.075	12		
#230	0.063	15		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0283	32		
---	0.0193	40		
---	0.0116	52		
---	0.0084	63		
---	0.0062	73		
---	0.0045	79		
---	0.0032	85		
---	0.0016	88		

<u>Coefficients</u>	
D ₈₅ = 0.0634 mm	D ₃₀ = 0.0068 mm
D ₆₀ = 0.0194 mm	D ₁₅ = 0.0029 mm
D ₅₀ = 0.0125 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

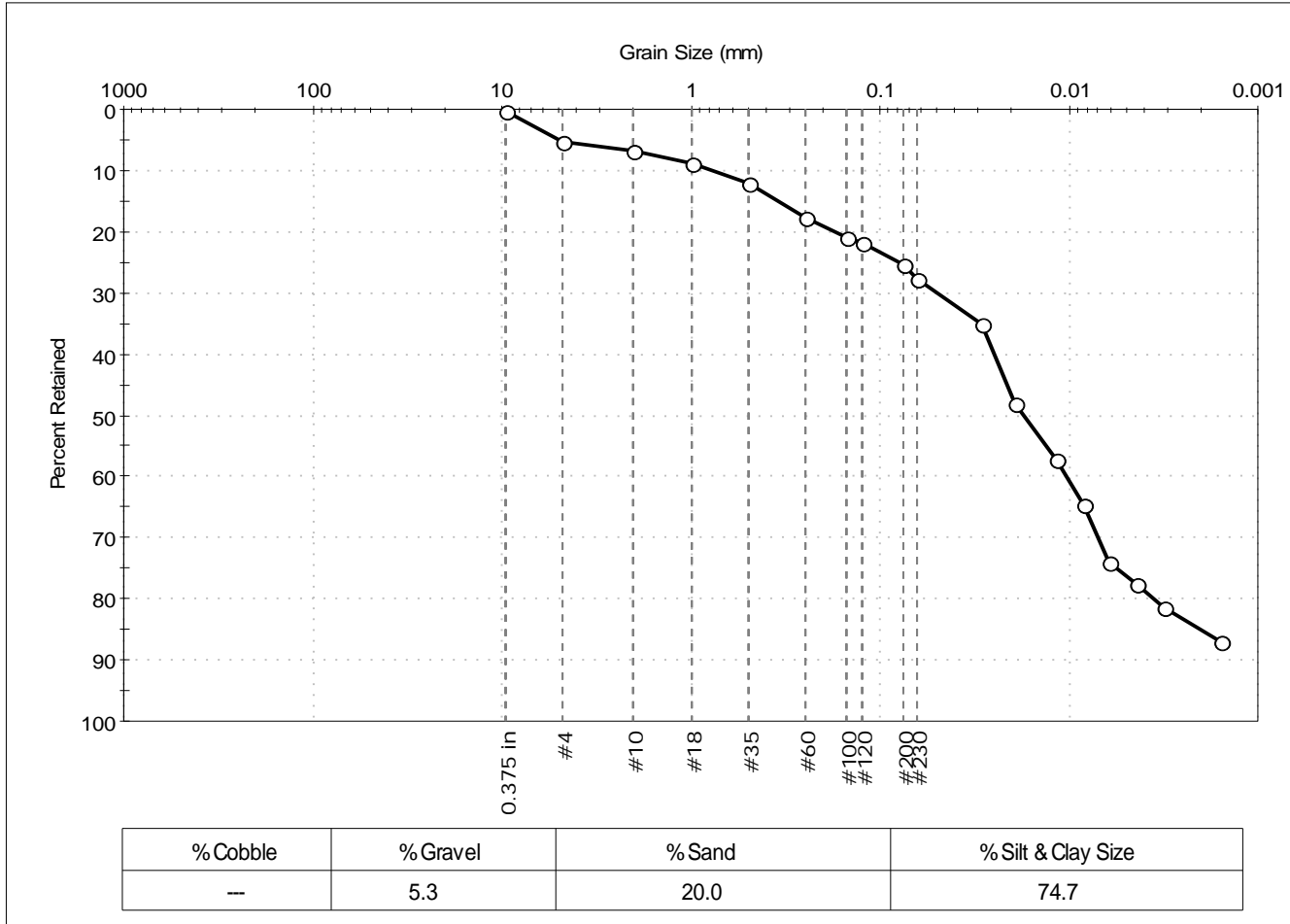
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project No: GTX-302366
Project: New Bedford Harbor	
Location: New Bedford, MA	
Boring ID: 331-14LTM	Sample Type: bag
Sample ID: NBH14-0280	Test Date: 11/03/14
Depth: ---	Test Id: 310500
Test Comment: ---	Tested By: jbr
Sample Description: Wet, dark gray silt with sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	5		
#10	2.00	7		
#18	1.00	9		
#35	0.50	12		
#60	0.25	18		
#100	0.15	21		
#120	0.12	22		
#200	0.075	25		
#230	0.063	28		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0292	35		
---	0.0191	48		
---	0.0117	57		
---	0.0084	65		
---	0.0062	74		
---	0.0044	78		
---	0.0032	81		
---	0.0016	87		

<u>Coefficients</u>	
D ₈₅ = 0.3454 mm	D ₃₀ = 0.0070 mm
D ₆₀ = 0.0248 mm	D ₁₅ = 0.0020 mm
D ₅₀ = 0.0172 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

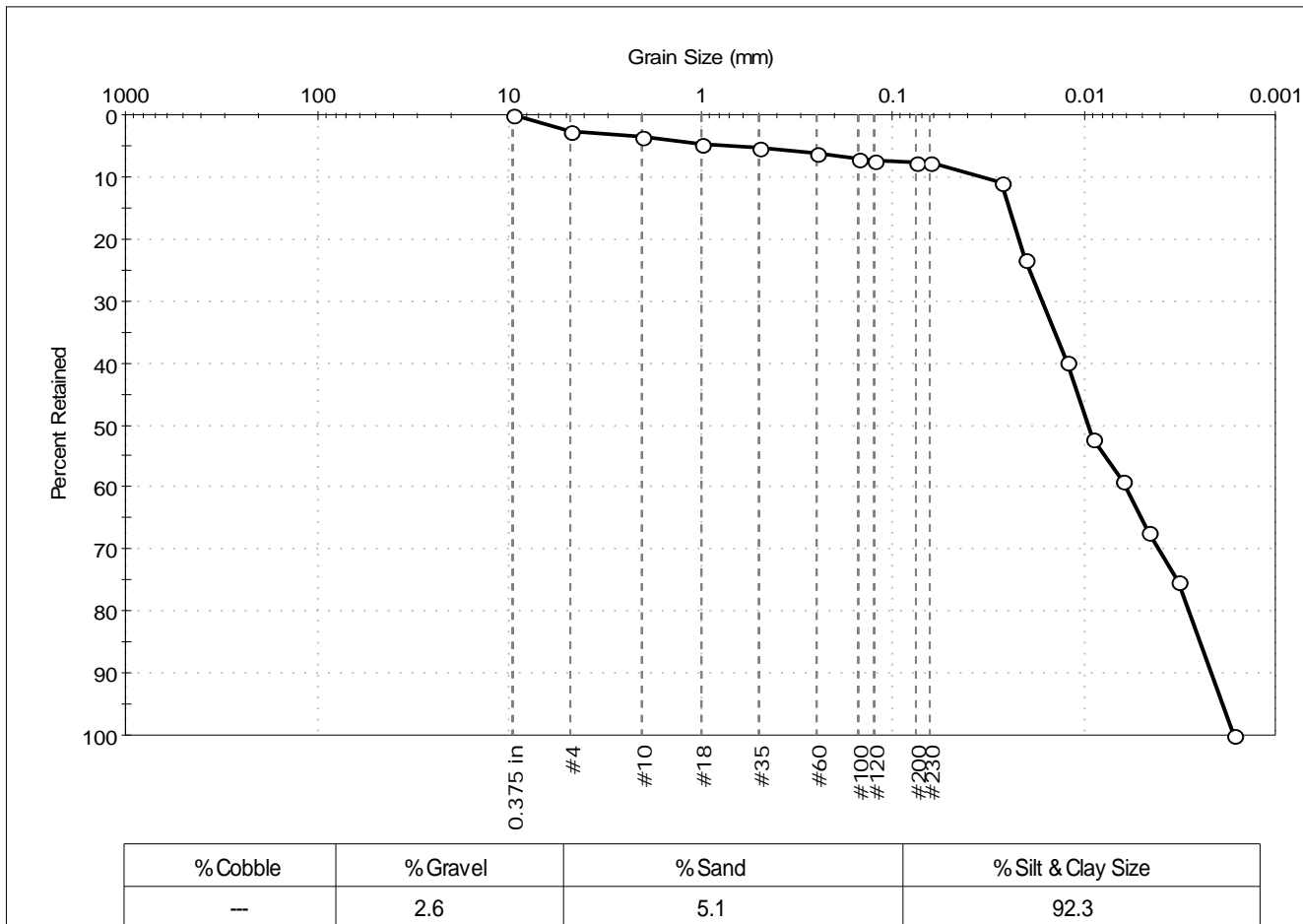
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 323-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0281	Test Date: 11/04/14	Checked By: jdt	
Depth: ---	Test Id: 310501		
Test Comment: ---			
Sample Description: Wet, dark olive gray silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	4		
#18	1.00	5		
#35	0.50	5		
#60	0.25	6		
#100	0.15	7		
#120	0.12	7		
#200	0.075	8		
#230	0.063	8		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0269	11		
---	0.0205	23		
---	0.0123	40		
---	0.0090	52		
---	0.0063	59		
---	0.0046	67		
---	0.0032	75		
---	0.0017	100		

Coefficients

D ₈₅ = 0.0246 mm	D ₃₀ = 0.0041 mm
D ₆₀ = 0.0122 mm	D ₁₅ = 0.0025 mm
D ₅₀ = 0.0095 mm	D ₁₀ = 0.0022 mm
C _u = 5.545	C _c = 0.626

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

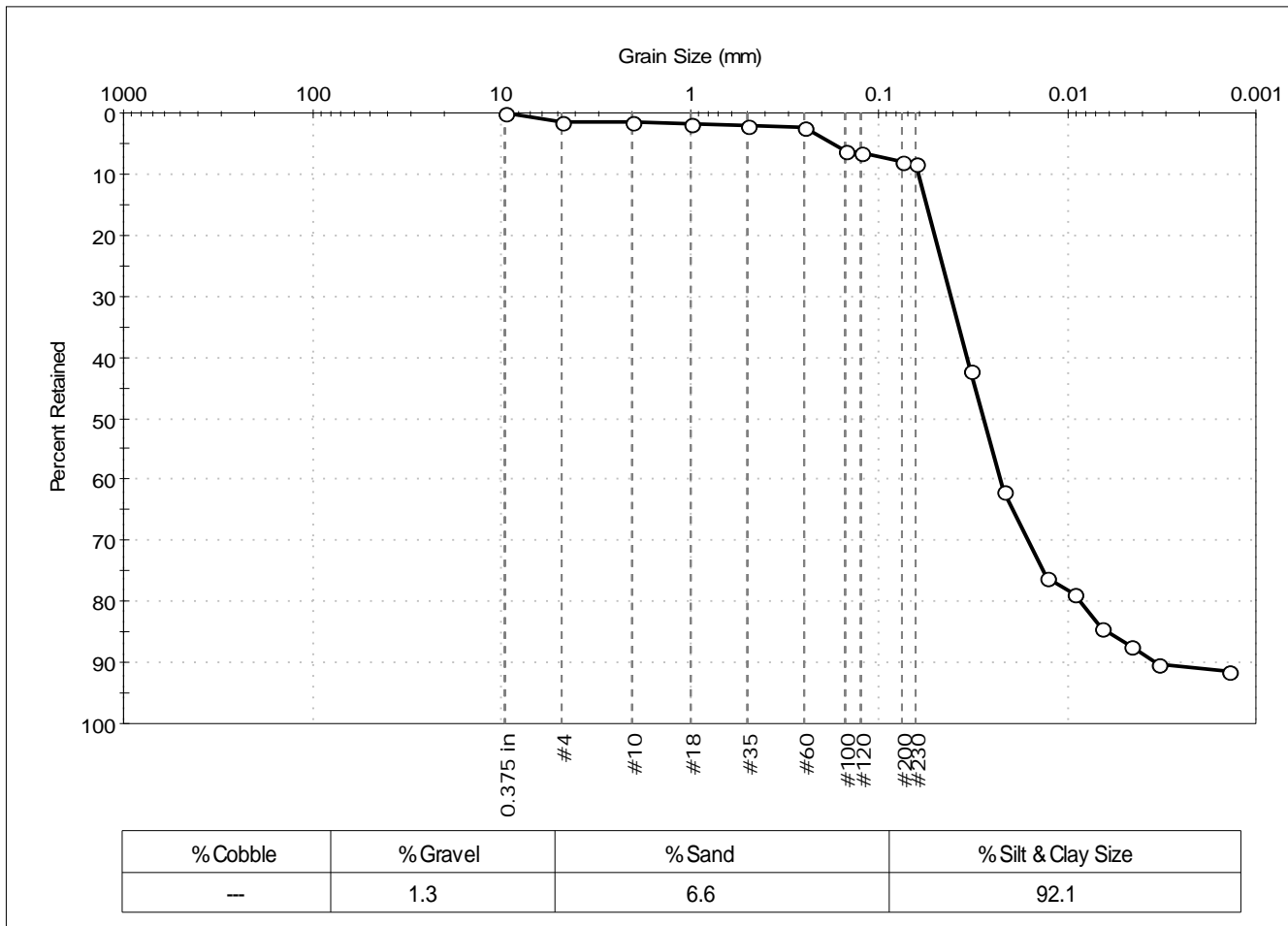
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 323-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0282
 Test Date: 11/03/14
 Checked By: jdt
 Depth: ---
 Test Id: 310502
 Test Comment: ---
 Sample Description: Wet, very dark gray silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	1		
#18	1.00	2		
#35	0.50	2		
#60	0.25	2		
#100	0.15	6		
#120	0.12	7		
#200	0.075	8		
#230	0.063	8		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	42		
---	0.0218	62		
---	0.0129	76		
---	0.0092	79		
---	0.0066	85		
---	0.0046	87		
---	0.0033	90		
---	0.0014	92		

Coefficients

D ₈₅ = 0.0554 mm	D ₃₀ = 0.0162 mm
D ₆₀ = 0.0342 mm	D ₁₅ = 0.0062 mm
D ₅₀ = 0.0279 mm	D ₁₀ = 0.0033 mm
C _u = 10.364	C _c = 2.325

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

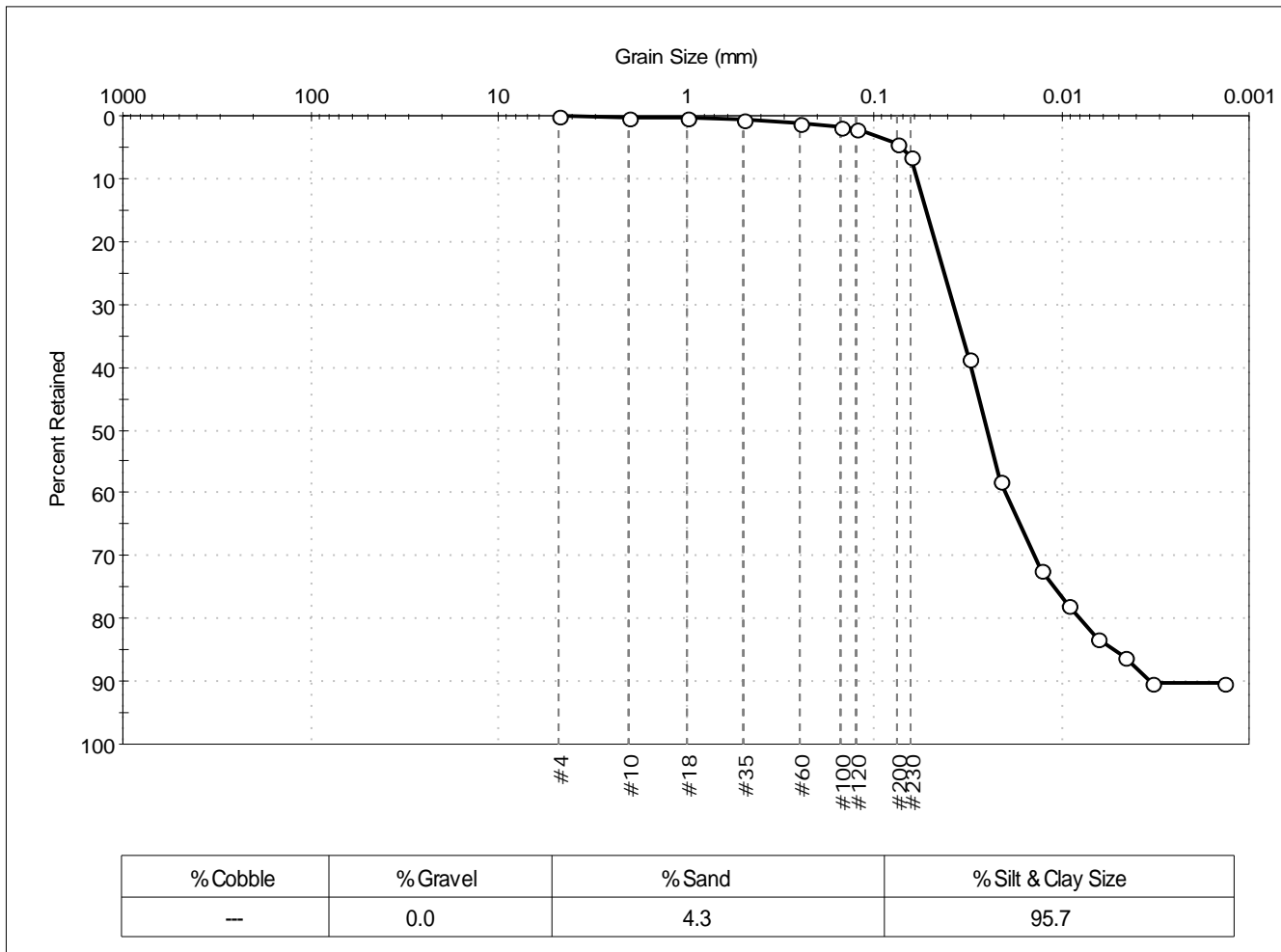
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 323-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0282DUP
 Test Date: 10/24/14
 Checked By: jdt
 Depth: ---
 Test Id: 310503
 Test Comment: ---
 Sample Description: Wet, vey dark gray silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	4		
#230	0.063	7		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0313	39		
---	0.0213	58		
---	0.0128	72		
---	0.0091	78		
---	0.0065	83		
---	0.0046	86		
---	0.0033	90		
---	0.0014	90		

<u>Coefficients</u>	
D ₈₅ = 0.0524 mm	D ₃₀ = 0.0138 mm
D ₆₀ = 0.0305 mm	D ₁₅ = 0.0053 mm
D ₅₀ = 0.0251 mm	D ₁₀ = 0.0033 mm
C _u = 9.242	C _c = 1.892

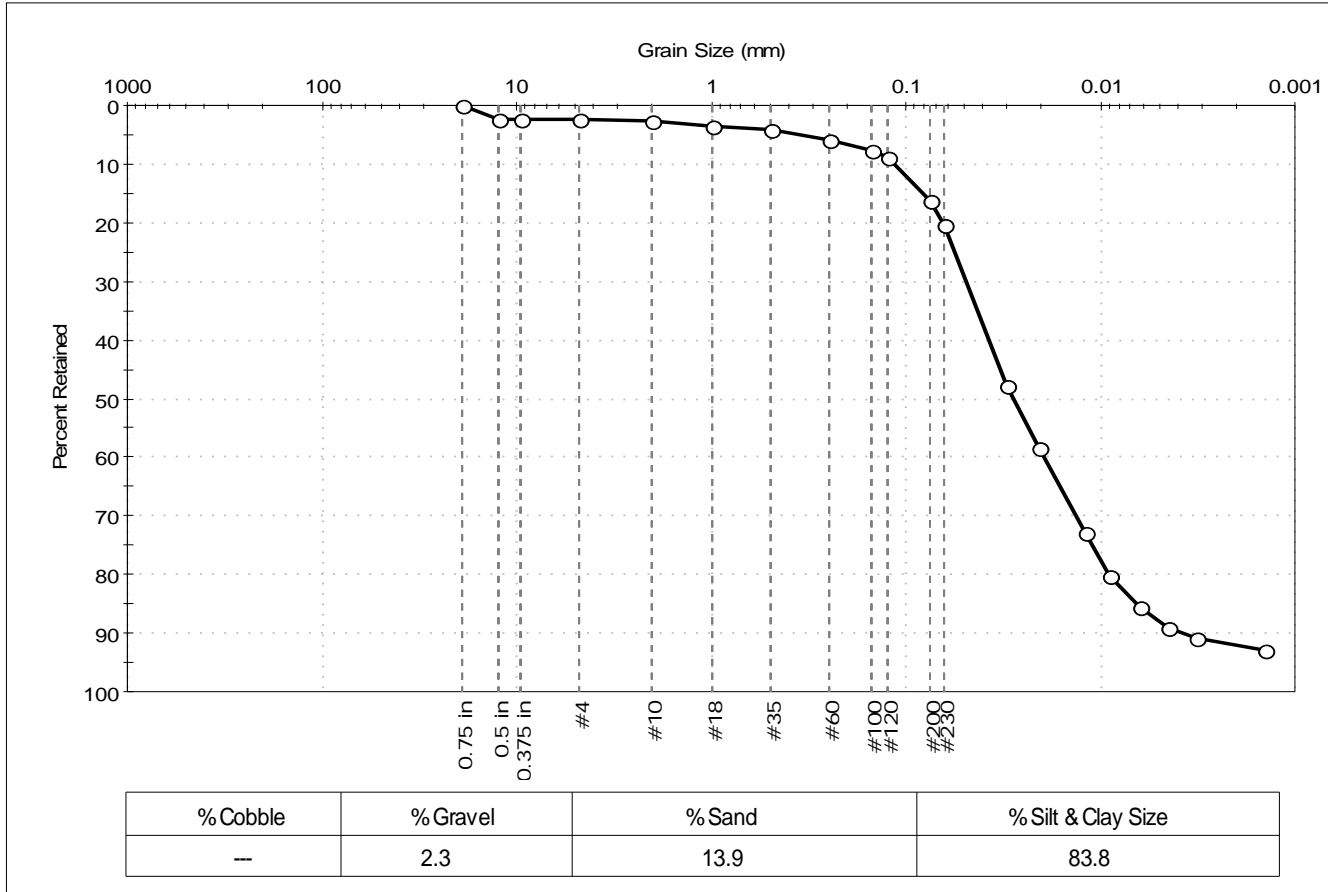
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 323-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0283	Test Date: 11/03/14	Depth: ---	Test Id: 310504
Test Comment: ---			
Sample Description: Wet, dark olive gray silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	2		
0.375 in	9.50	2		
#4	4.75	2		
#10	2.00	3		
#18	1.00	4		
#35	0.50	4		
#60	0.25	6		
#100	0.15	8		
#120	0.12	9		
#200	0.075	16		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0300	48		
---	0.0205	59		
---	0.0121	73		
---	0.0090	80		
---	0.0063	86		
---	0.0045	89		
---	0.0032	91		
---	0.0014	93		

<u>Coefficients</u>	
D ₈₅ = 0.0816 mm	D ₃₀ = 0.0134 mm
D ₆₀ = 0.0370 mm	D ₁₅ = 0.0066 mm
D ₅₀ = 0.0277 mm	D ₁₀ = 0.0039 mm
C _u = 9.487	C _c = 1.244

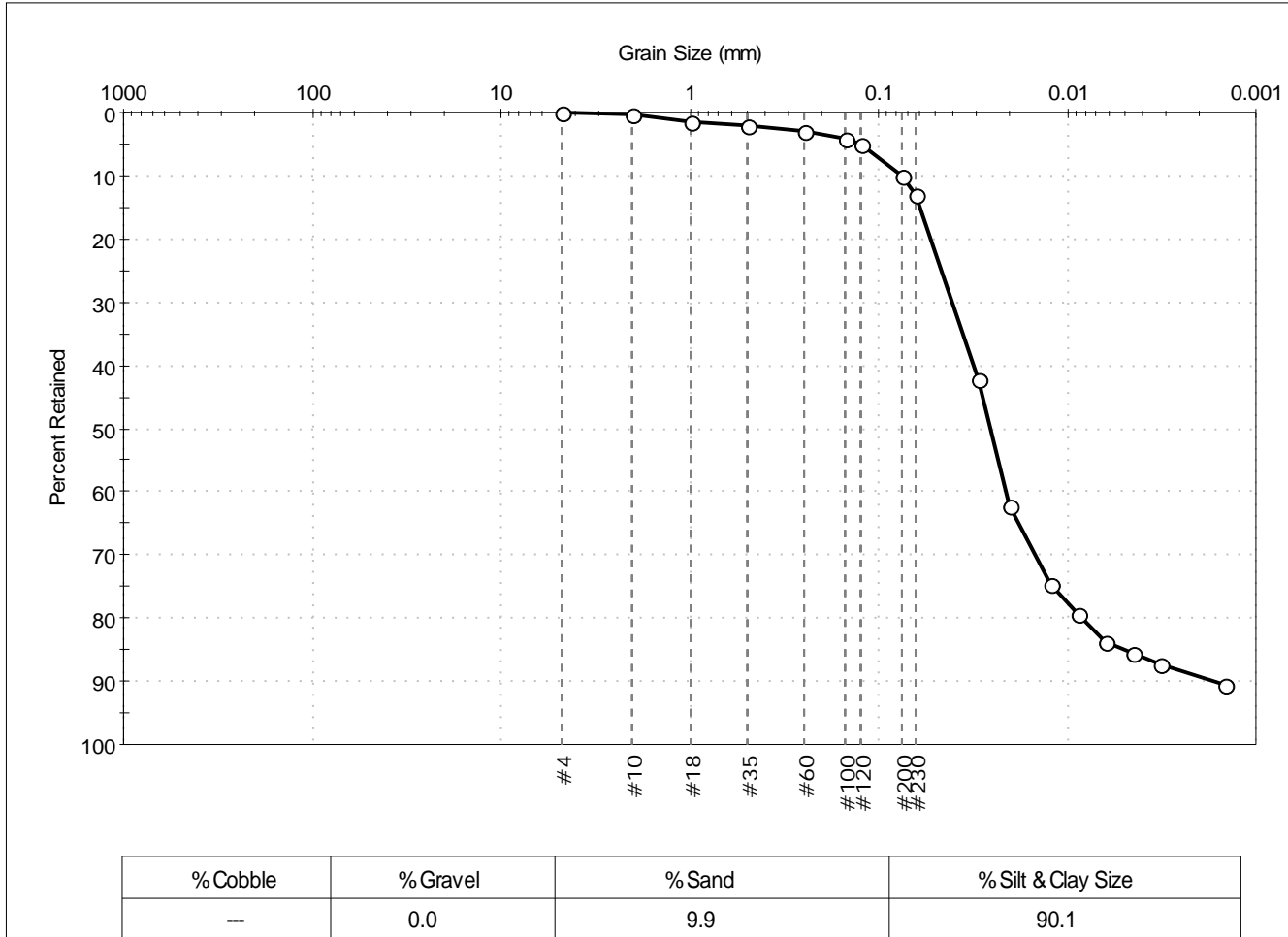
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	323-14LTM	Sample Type:	bag
Sample ID:	NBH14-0284	Test Date:	10/30/14
Depth:	---	Test Id:	310505
Test Comment:	---		
Sample Description:	Wet, dark olive gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	3		
#100	0.15	4		
#120	0.12	5		
#200	0.075	10		
#230	0.063	13		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0296	42		
---	0.0204	62		
---	0.0123	75		
---	0.0089	79		
---	0.0064	84		
---	0.0045	86		
---	0.0032	87		
---	0.0015	91		

<u>Coefficients</u>	
D ₈₅ = 0.0599 mm	D ₃₀ = 0.0149 mm
D ₆₀ = 0.0315 mm	D ₁₅ = 0.0050 mm
D ₅₀ = 0.0257 mm	D ₁₀ = 0.0017 mm
C _u = 18.529	C _c = 4.146

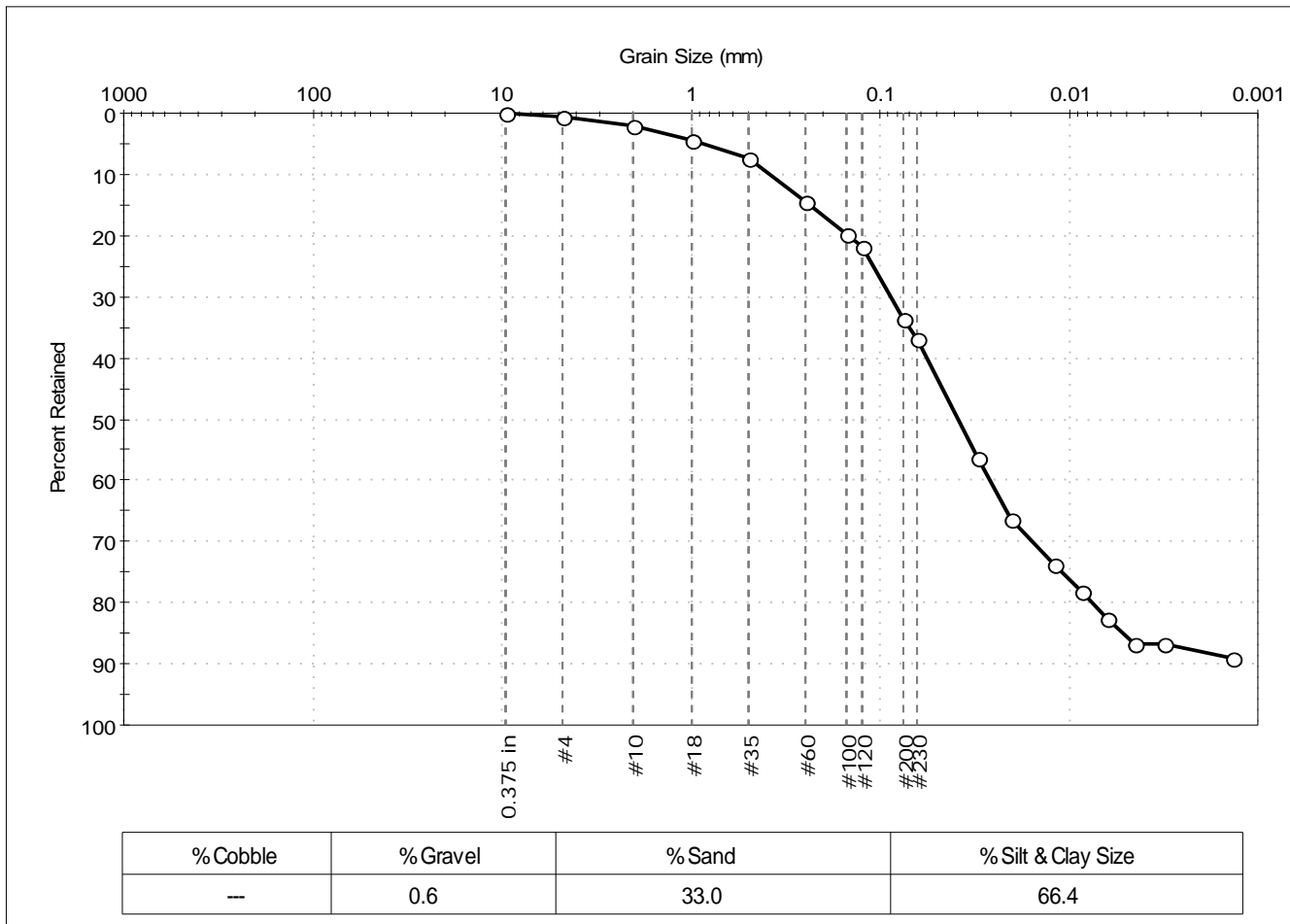
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 324-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0285
 Test Date: 10/30/14
 Checked By: jdt
 Depth: ---
 Test Id: 310506
 Test Comment: ---
 Sample Description: Wet, dark olive gray sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	4		
#35	0.50	8		
#60	0.25	14		
#100	0.15	20		
#120	0.12	22		
#200	0.075	34		
#230	0.063	37		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0303	56		
---	0.0201	66		
---	0.0120	74		
---	0.0087	78		
---	0.0062	82		
---	0.0045	87		
---	0.0032	87		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.2363 mm	D ₃₀ = 0.0157 mm
D ₆₀ = 0.0557 mm	D ₁₅ = 0.0052 mm
D ₅₀ = 0.0383 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

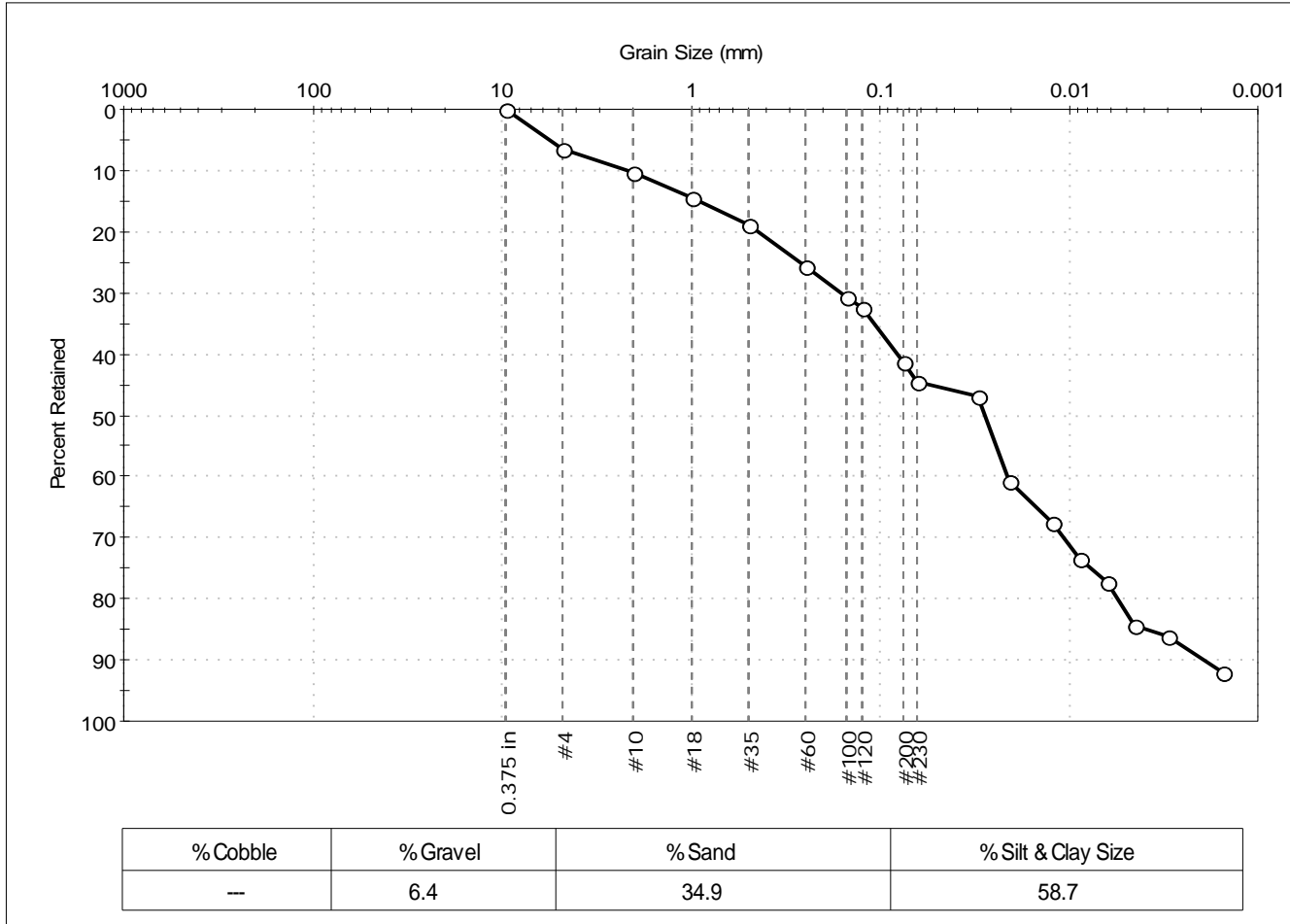
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 324-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0286	Test Date: 11/04/14	Test Id: 310507	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive brown sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	6		
#10	2.00	10		
#18	1.00	15		
#35	0.50	19		
#60	0.25	26		
#100	0.15	31		
#120	0.12	32		
#200	0.075	41		
#230	0.063	44		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0300	47		
---	0.0208	61		
---	0.0123	68		
---	0.0088	73		
---	0.0063	77		
---	0.0045	84		
---	0.0030	86		
---	0.0015	92		

<u>Coefficients</u>	
D ₈₅ = 0.9287 mm	D ₃₀ = 0.0107 mm
D ₆₀ = 0.0811 mm	D ₁₅ = 0.0039 mm
D ₅₀ = 0.0276 mm	D ₁₀ = 0.0020 mm
C _u = 40.550	C _c = 0.706

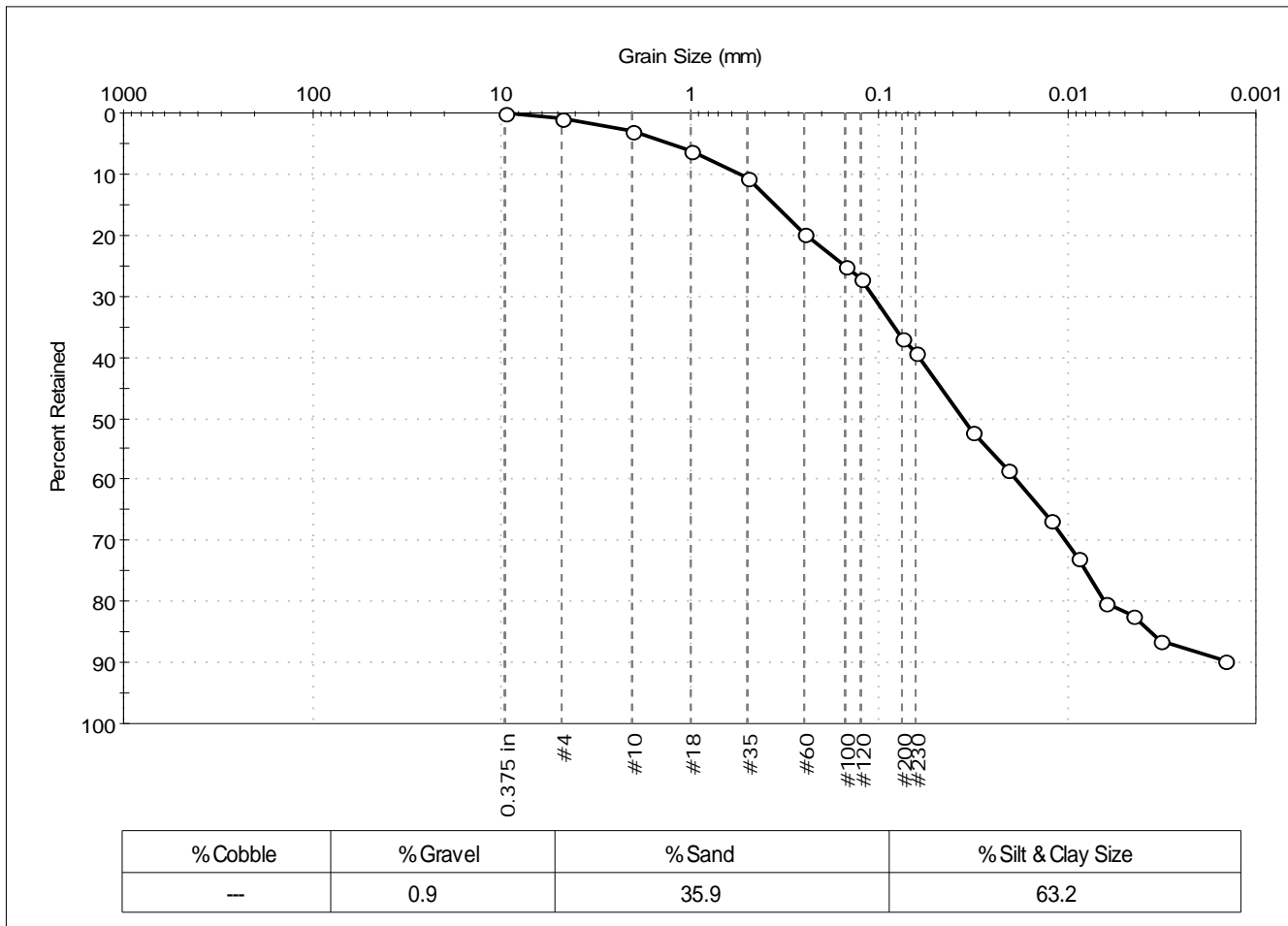
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 324-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0287
 Test Date: 10/30/14
 Checked By: jdt
 Depth: ---
 Test Id: 310508
 Test Comment: ---
 Sample Description: Wet, olive brown sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	6		
#35	0.50	11		
#60	0.25	20		
#100	0.15	25		
#120	0.12	27		
#200	0.075	37		
#230	0.063	39		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0319	52		
---	0.0206	58		
---	0.0121	67		
---	0.0088	73		
---	0.0063	80		
---	0.0045	82		
---	0.0032	86		
---	0.0015	90		

Coefficients	
D ₈₅ = 0.3576 mm	D ₃₀ = 0.0102 mm
D ₆₀ = 0.0608 mm	D ₁₅ = 0.0036 mm
D ₅₀ = 0.0357 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

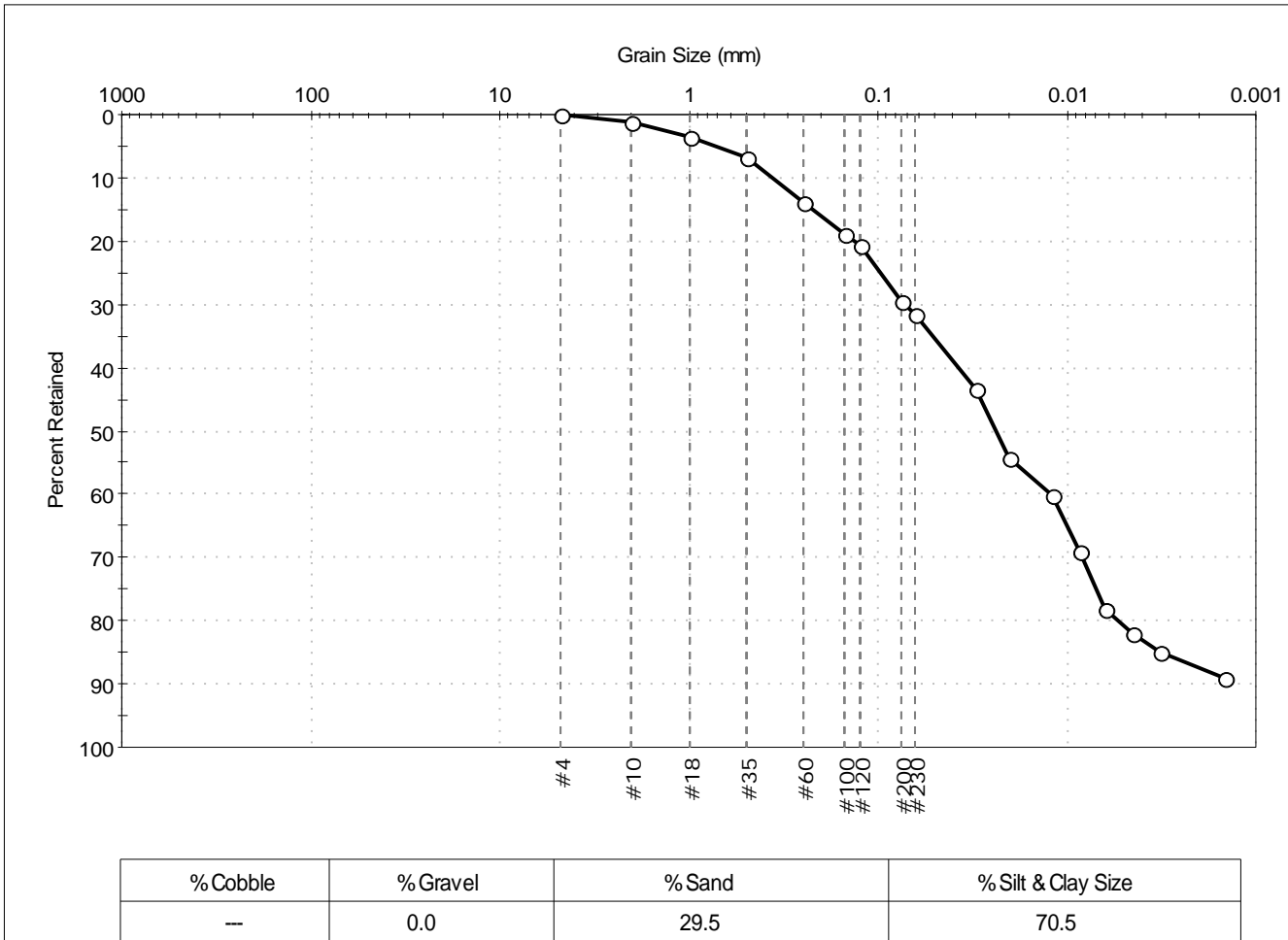
Classification	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 324-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0288	Test Date: 10/30/14	Test Id: 310509	
Depth: ---	Test Comment: ---	Sample Description: Wet, olive brown silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	7		
#60	0.25	14		
#100	0.15	19		
#120	0.12	21		
#200	0.075	29		
#230	0.063	32		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0306	43		
---	0.0201	54		
---	0.0119	60		
---	0.0086	69		
---	0.0063	78		
---	0.0045	82		
---	0.0032	85		
---	0.0015	89		

<u>Coefficients</u>	
D ₈₅ = 0.2213 mm	D ₃₀ = 0.0084 mm
D ₆₀ = 0.0375 mm	D ₁₅ = 0.0032 mm
D ₅₀ = 0.0236 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

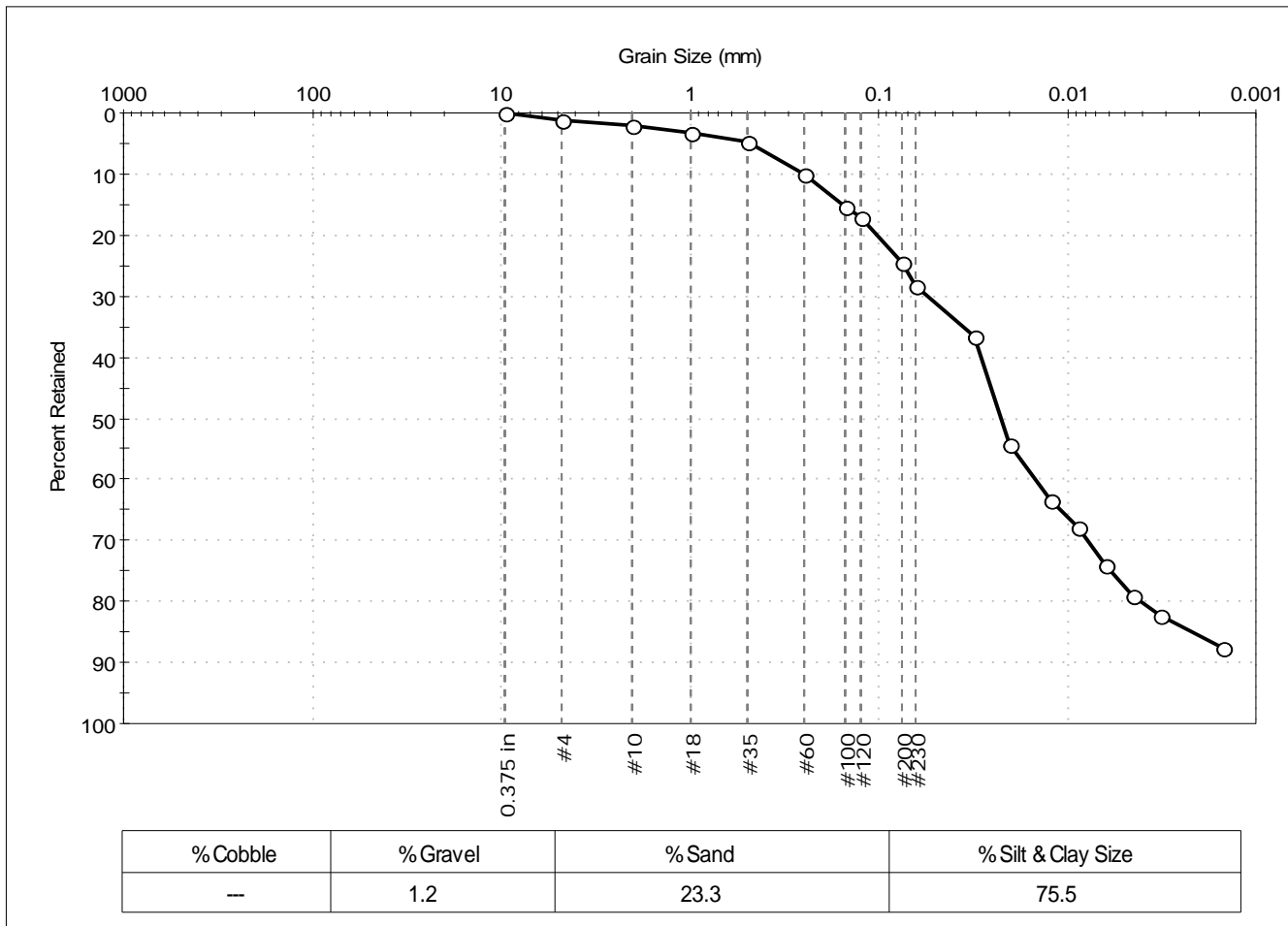
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	325-14LTM	Sample Type:	bag
Sample ID:	NBH14-0289	Test Date:	11/04/14
Depth:	---	Test Id:	310510
Test Comment:	---		
Sample Description:	Wet, olive brown silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	3		
#35	0.50	5		
#60	0.25	10		
#100	0.15	15		
#120	0.12	17		
#200	0.075	25		
#230	0.063	28		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0309	36		
---	0.0200	54		
---	0.0122	64		
---	0.0087	68		
---	0.0062	74		
---	0.0045	79		
---	0.0032	82		
---	0.0015	87		

<u>Coefficients</u>	
D ₈₅ = 0.1542 mm	D ₃₀ = 0.0077 mm
D ₆₀ = 0.0283 mm	D ₁₅ = 0.0022 mm
D ₅₀ = 0.0221 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

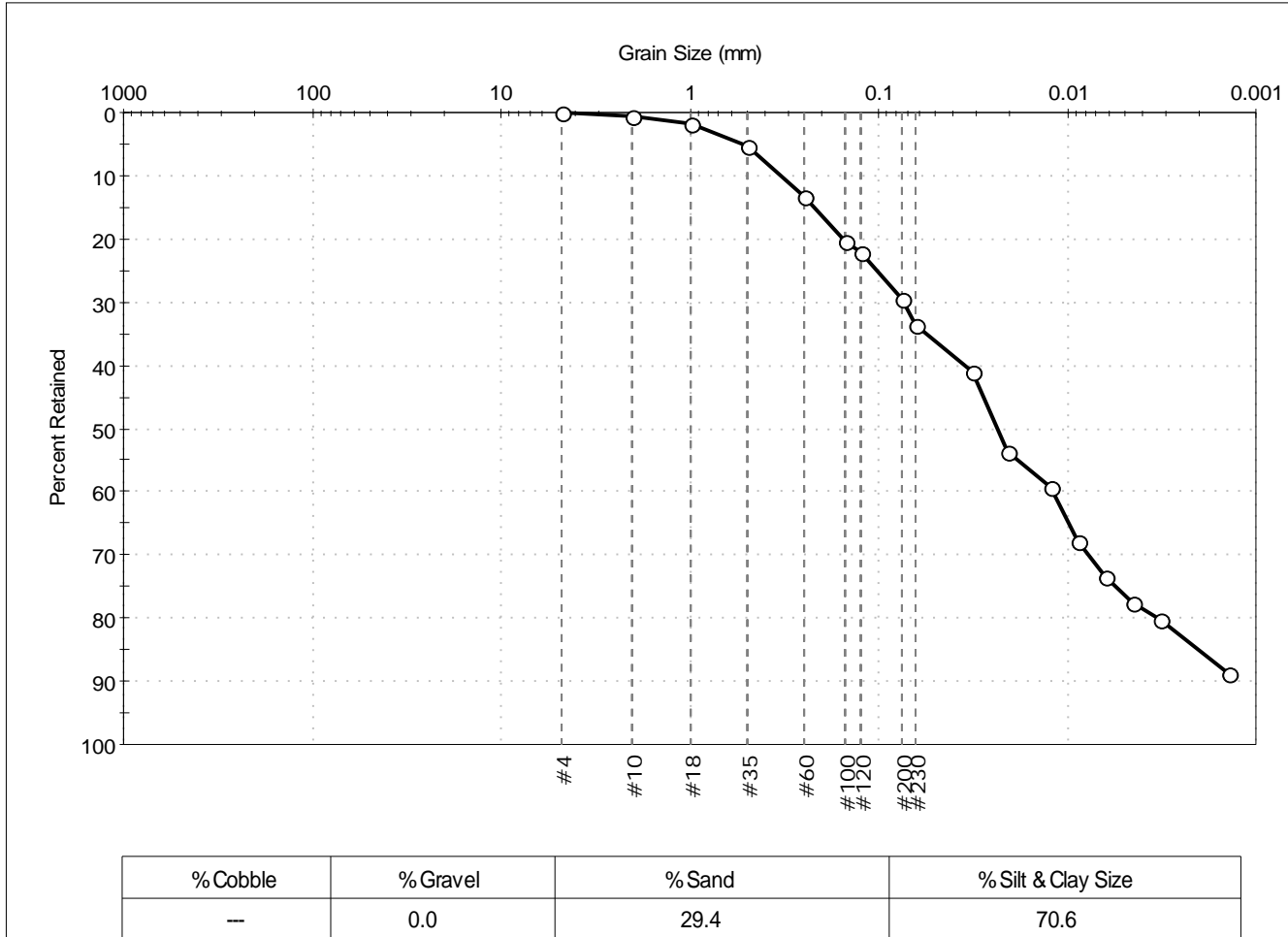
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 325-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0290	Test Date: 11/14/14	Test Id: 310511	
Depth: ---	Test Comment: ---	Sample Description: Moist, dark olive gray silt with organics	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	5		
#60	0.25	13		
#100	0.15	20		
#120	0.12	22		
#200	0.075	29		
#230	0.063	34		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0321	41		
---	0.0207	54		
---	0.0123	59		
---	0.0089	68		
---	0.0063	73		
---	0.0045	78		
---	0.0032	80		
---	0.0014	89		

<u>Coefficients</u>	
D ₈₅ = 0.2207 mm	D ₃₀ = 0.0077 mm
D ₆₀ = 0.0355 mm	D ₁₅ = 0.0020 mm
D ₅₀ = 0.0235 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

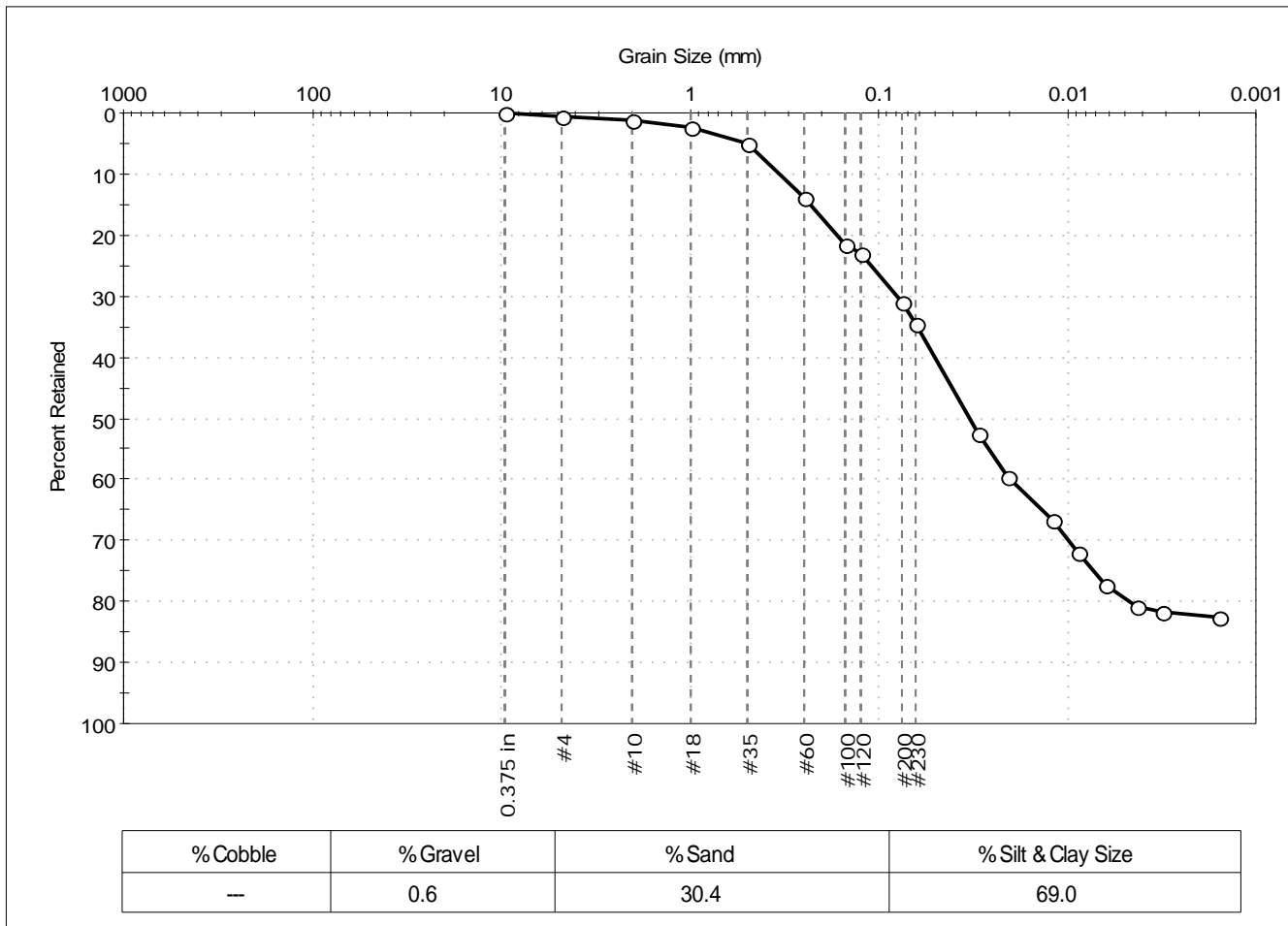
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	325-14LTM	Sample Type:	bag
Sample ID:	NBH14-0291	Test Date:	11/03/14
Depth:	---	Test Id:	310512
Test Comment:	---		
Sample Description:	Wet, olive brown sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	1		
#18	1.00	2		
#35	0.50	5		
#60	0.25	14		
#100	0.15	21		
#120	0.12	23		
#200	0.075	31		
#230	0.063	35		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0299	53		
---	0.0205	60		
---	0.0121	67		
---	0.0087	72		
---	0.0063	77		
---	0.0043	81		
---	0.0032	82		
---	0.0016	82		

<u>Coefficients</u>	
D ₈₅ = 0.2319 mm	D ₃₀ = 0.0098 mm
D ₆₀ = 0.0504 mm	D ₁₅ = N/A
D ₅₀ = 0.0334 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

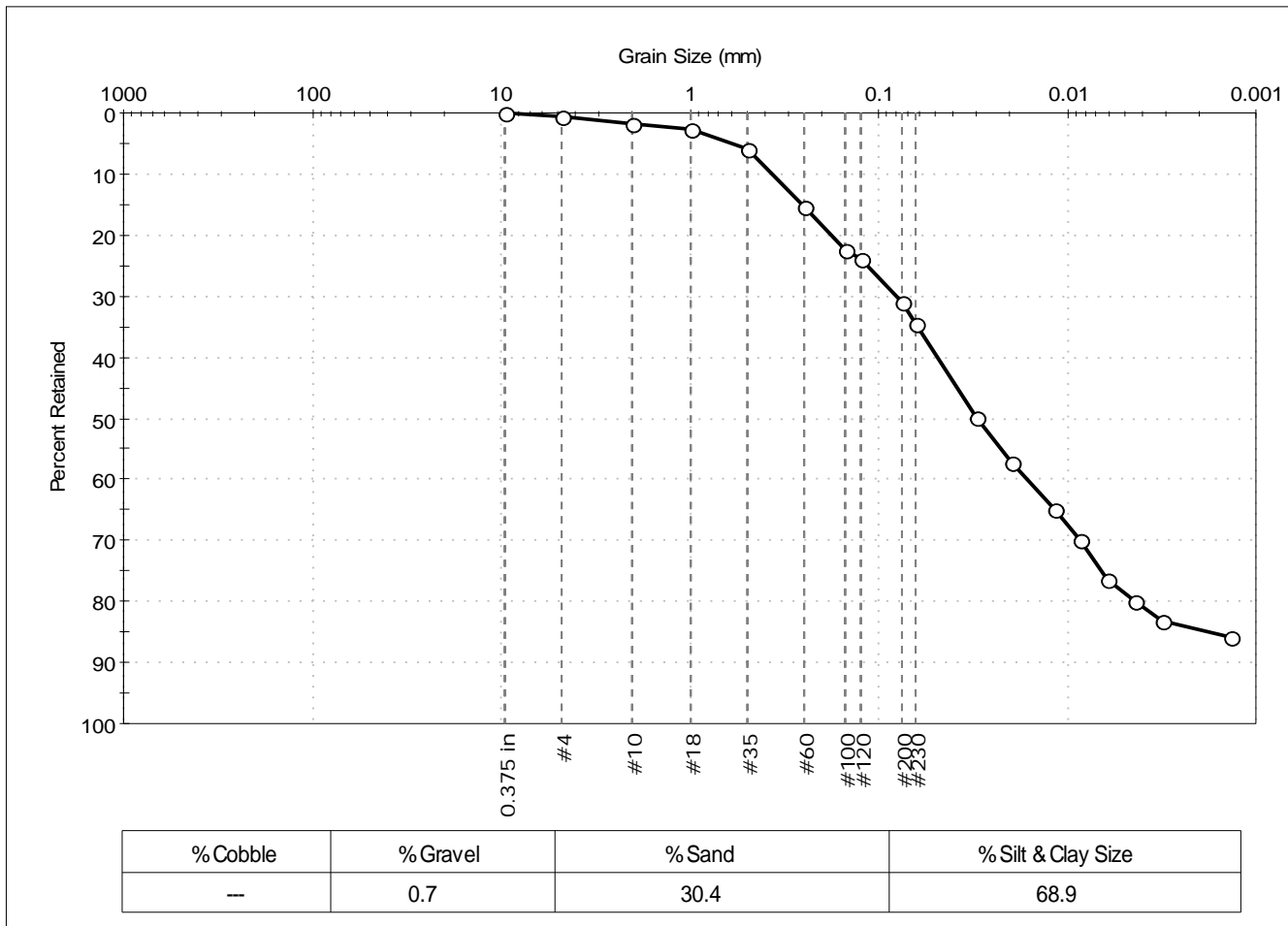
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	325-14LTM	Sample Type:	bag
Sample ID:	NBH14-0292	Test Date:	10/30/14
Depth:	---	Test Id:	310513
Test Comment:	---		
Sample Description:	Wet, olive brown sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	2		
#18	1.00	3		
#35	0.50	6		
#60	0.25	15		
#100	0.15	22		
#120	0.12	24		
#200	0.075	31		
#230	0.063	34		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0301	50		
---	0.0198	57		
---	0.0118	65		
---	0.0085	70		
---	0.0062	77		
---	0.0044	80		
---	0.0032	83		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.2547 mm	D ₃₀ = 0.0084 mm
D ₆₀ = 0.0482 mm	D ₁₅ = 0.0018 mm
D ₅₀ = 0.0296 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

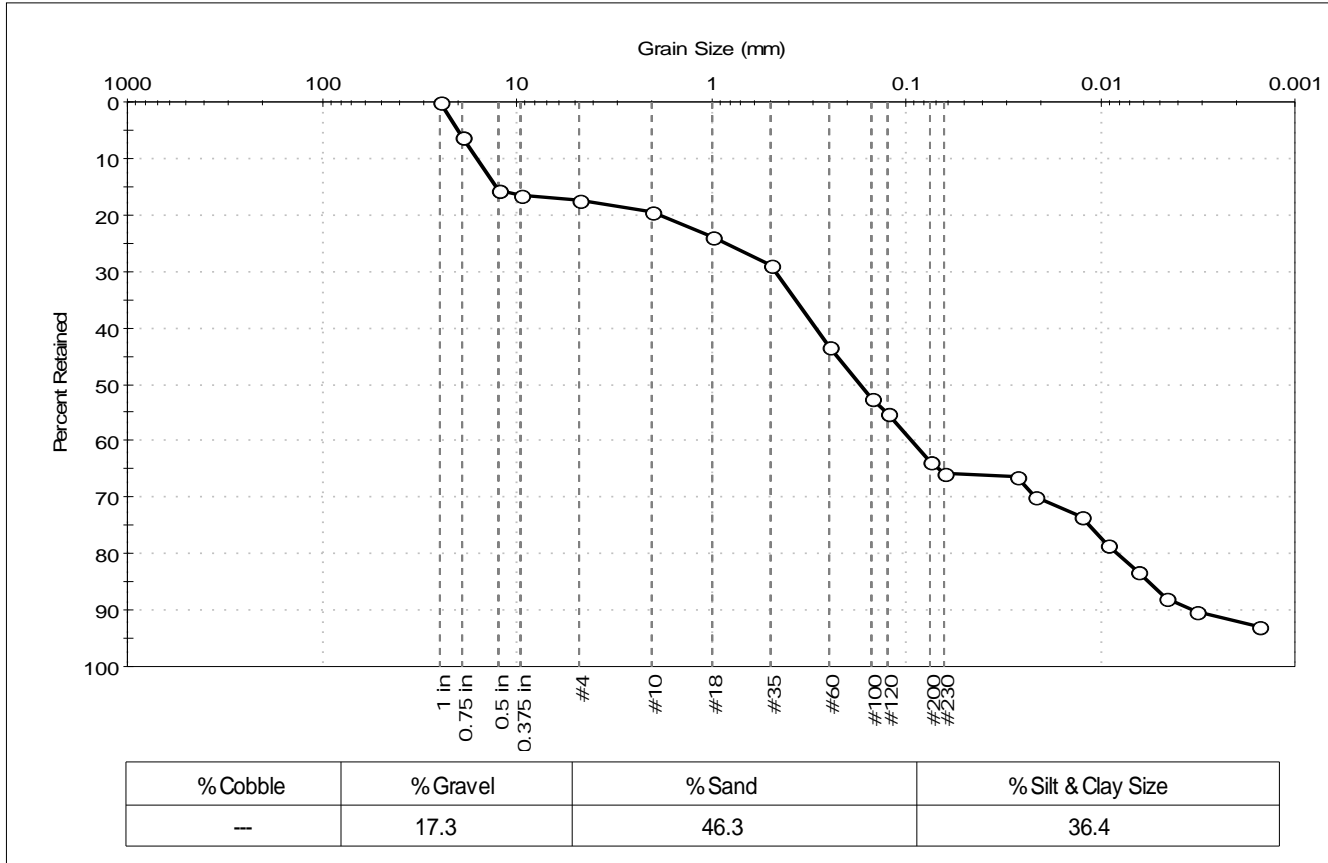
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	225-14LTM	Sample Type:	bag
Sample ID:	NBH14-0302	Test Date:	11/03/14
Depth:	---	Test Id:	310514
Test Comment:	---		
Sample Description:	Wet, dark olive gray silty sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
1 in	25.00	0		
0.75 in	19.00	6		
0.5 in	12.50	16		
0.375 in	9.50	17		
#4	4.75	17		
#10	2.00	20		
#18	1.00	24		
#35	0.50	29		
#60	0.25	43		
#100	0.15	53		
#120	0.12	55		
#200	0.075	64		
#230	0.063	66		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0267	66		
---	0.0219	70		
---	0.0124	74		
---	0.0091	78		
---	0.0065	83		
---	0.0046	88		
---	0.0032	90		
---	0.0016	93		

<u>Coefficients</u>	
D ₈₅ = 12.8844 mm	D ₃₀ = 0.0218 mm
D ₆₀ = 0.2950 mm	D ₁₅ = 0.0057 mm
D ₅₀ = 0.1736 mm	D ₁₀ = 0.0034 mm
C _u = 86.765	C _c = 0.474

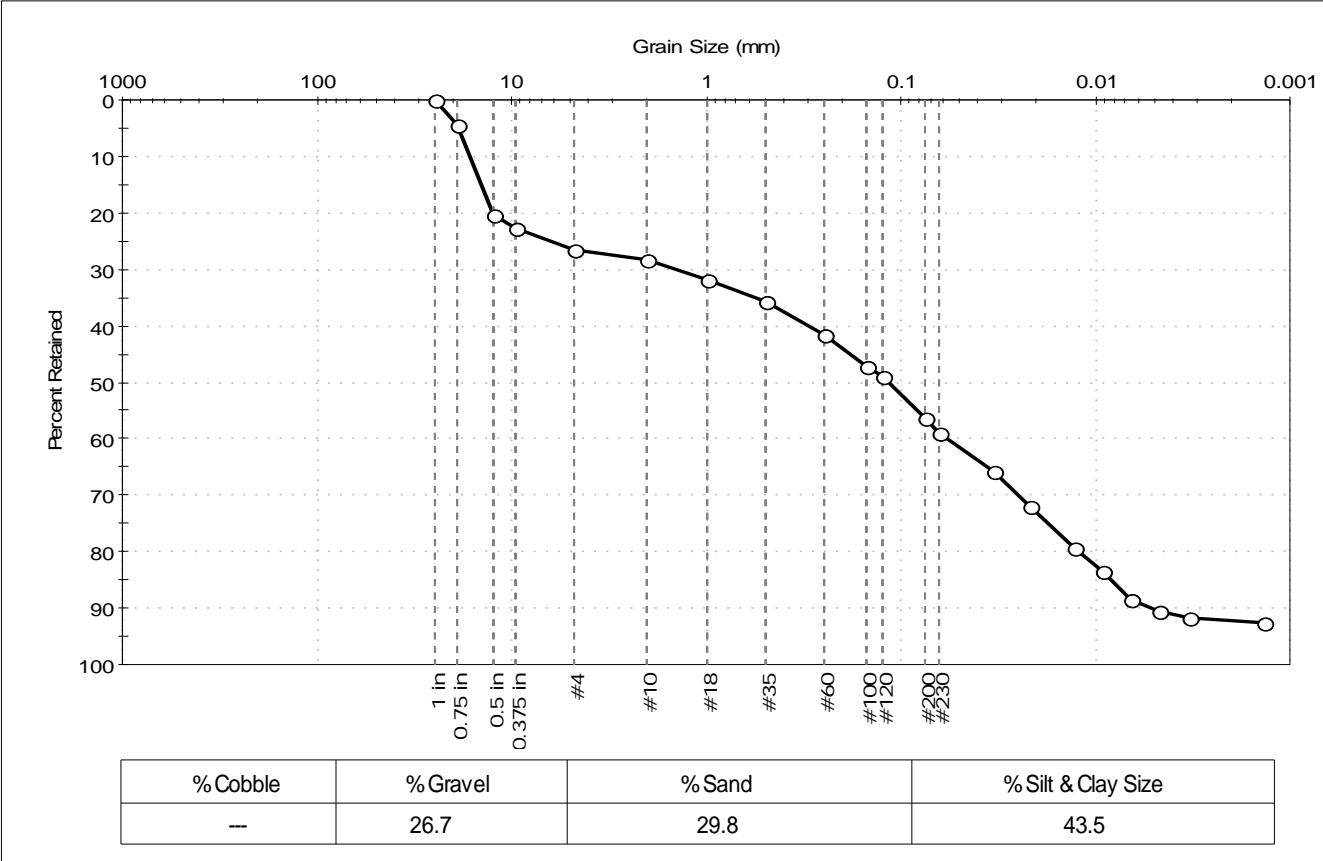
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	225-14LTM	Sample Type:	bag
Sample ID:	NBH14-0303	Test Date:	10/29/14
Depth:	---	Test Id:	310515
Test Comment:	---		
Sample Description:	Wet olive brown sandy silt with gravel		
Sample Comment:	Sample contains shells		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
1 in	25.00	0		
0.75 in	19.00	4		
0.5 in	12.50	20		
0.375 in	9.50	23		
#4	4.75	27		
#10	2.00	28		
#18	1.00	32		
#35	0.50	36		
#60	0.25	42		
#100	0.15	47		
#120	0.12	49		
#200	0.075	56		
#230	0.063	59		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0337	66		
---	0.0216	72		
---	0.0128	79		
---	0.0092	83		
---	0.0066	89		
---	0.0047	91		
---	0.0033	92		
---	0.0014	93		

Coefficients

D ₈₅ = 14.3872 mm	D ₃₀ = 0.0250 mm
D ₆₀ = 0.3010 mm	D ₁₅ = 0.0083 mm
D ₅₀ = 0.1167 mm	D ₁₀ = 0.0052 mm
C _u = 57.885	C _c = 0.399

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

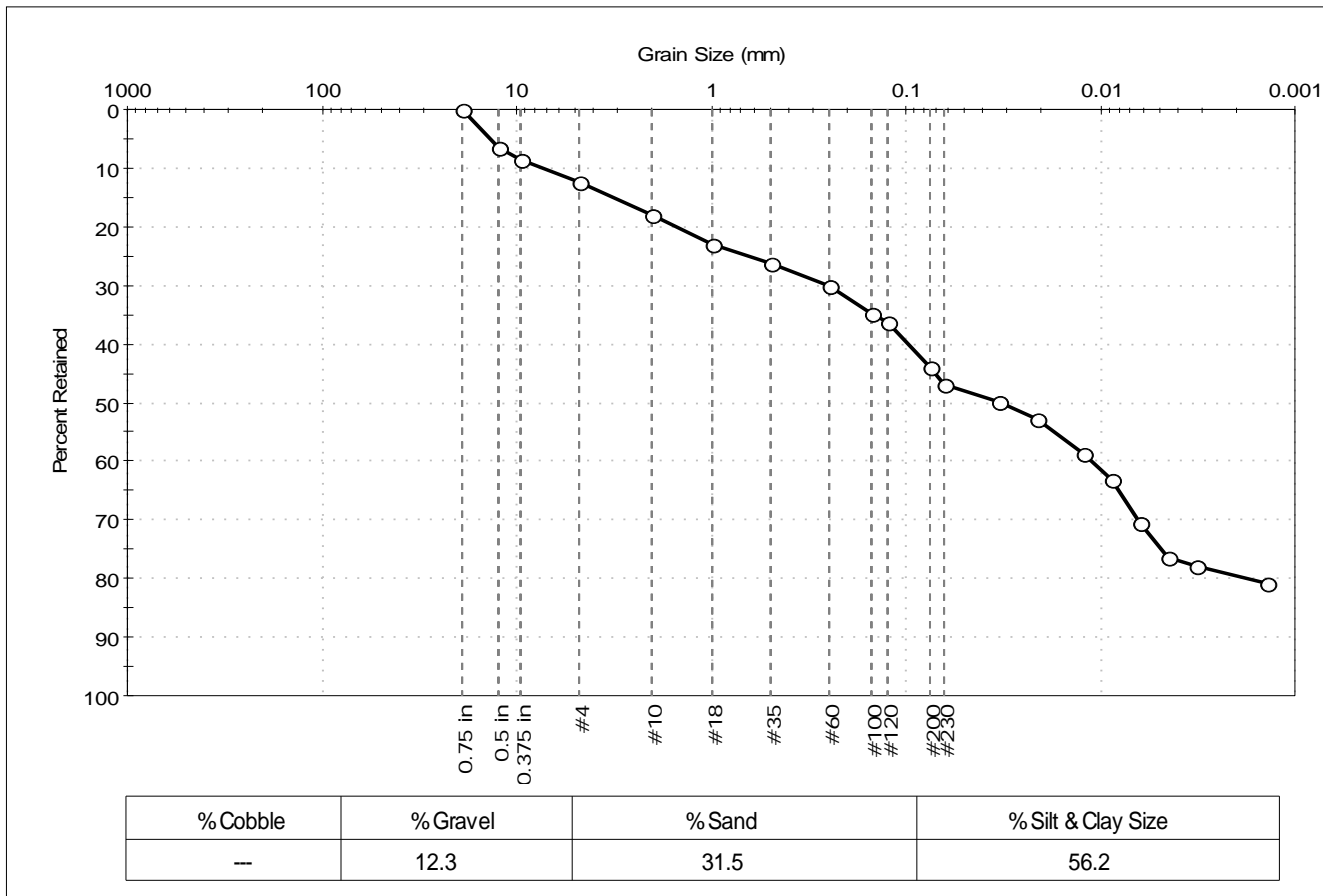
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 225-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0304	Test Date: 10/30/14	Test Id: 310516	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray sandy silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	7		
0.375 in	9.50	8		
#4	4.75	12		
#10	2.00	18		
#18	1.00	23		
#35	0.50	26		
#60	0.25	30		
#100	0.15	35		
#120	0.12	36		
#200	0.075	44		
#230	0.063	47		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0334	50		
---	0.0211	53		
---	0.0123	59		
---	0.0088	63		
---	0.0063	70		
---	0.0045	76		
---	0.0032	78		
---	0.0014	81		

<u>Coefficients</u>	
D ₈₅ = 3.1373 mm	D ₃₀ = 0.0064 mm
D ₆₀ = 0.0973 mm	D ₁₅ = N/A
D ₅₀ = 0.0321 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

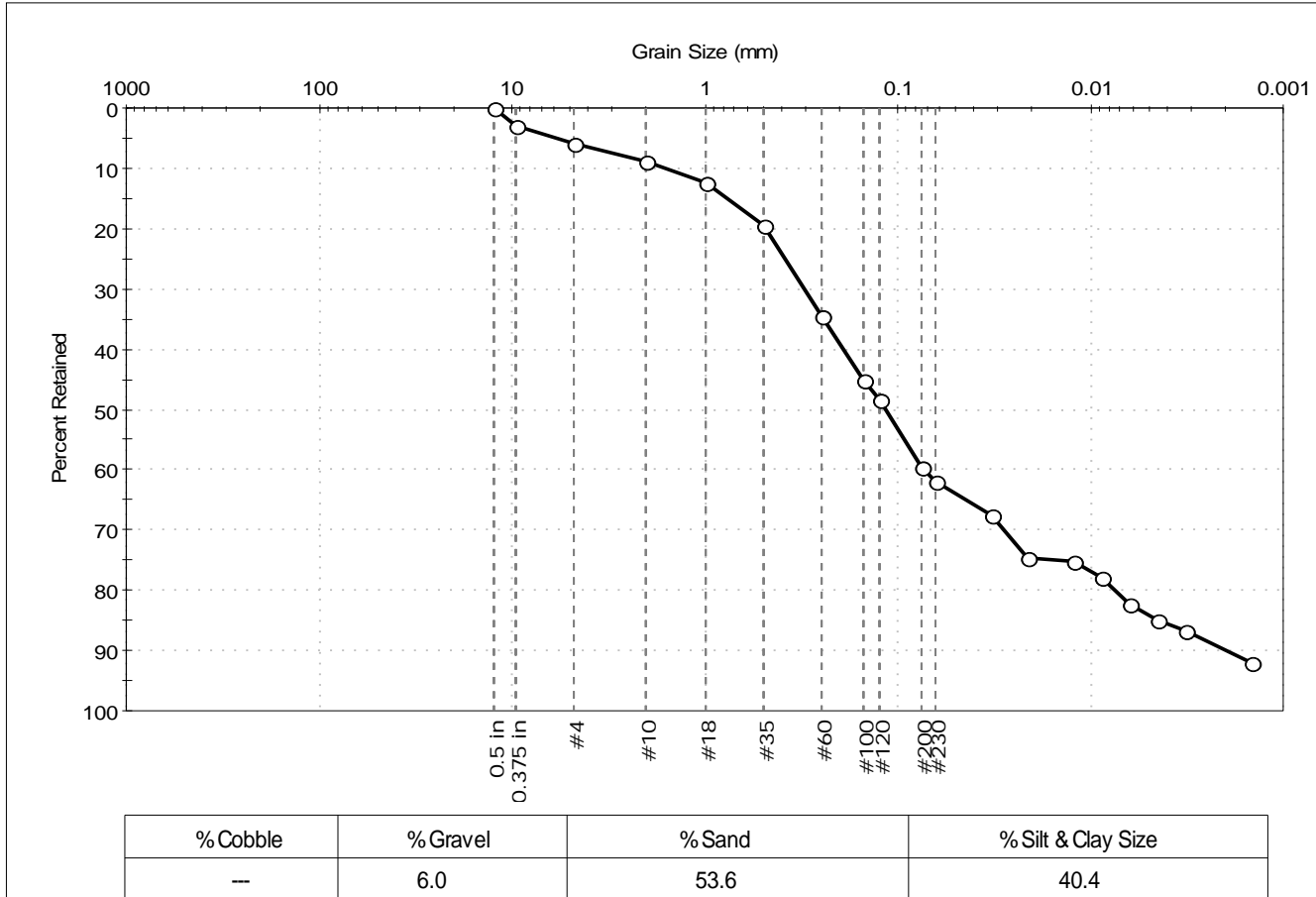
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	225-14LTM	Sample Type:	bag
Sample ID:	NBH14-0305	Test Date:	10/30/14
Depth:	---	Test Id:	310517
Test Comment:	---		
Sample Description:	Wet, dark olive gray silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.5 in	12.50	0		
0.375 in	9.50	3		
#4	4.75	6		
#10	2.00	9		
#18	1.00	12		
#35	0.50	19		
#60	0.25	35		
#100	0.15	45		
#120	0.12	48		
#200	0.075	60		
#230	0.063	62		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	67		
---	0.0213	74		
---	0.0124	75		
---	0.0088	78		
---	0.0063	82		
---	0.0045	85		
---	0.0032	87		
---	0.0015	92		

Coefficients

D ₈₅ = 0.7744 mm	D ₃₀ = 0.0281 mm
D ₆₀ = 0.1920 mm	D ₁₅ = 0.0045 mm
D ₅₀ = 0.1163 mm	D ₁₀ = 0.0020 mm
C _u = 96.000	C _c = 2.056

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

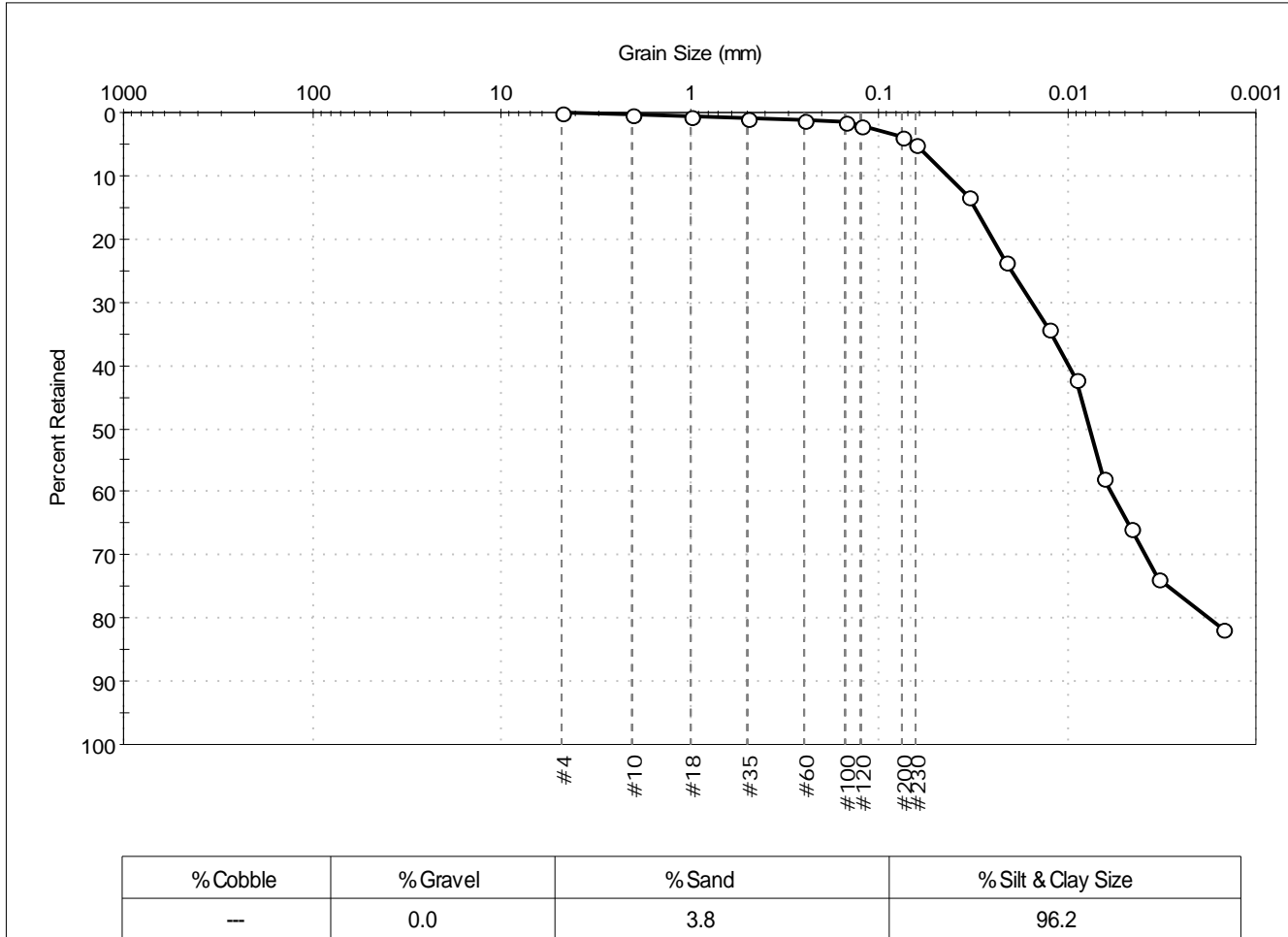
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	226-14LTM	Sample Type:	bag
Sample ID:	NBH14-0306	Test Date:	10/30/14
Depth:	---	Test Id:	310518
Test Comment:	---		
Sample Description:	Wet, olive brown silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	1		
#100	0.15	2		
#120	0.12	2		
#200	0.075	4		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	13		
---	0.0213	24		
---	0.0125	34		
---	0.0089	42		
---	0.0064	58		
---	0.0046	66		
---	0.0033	74		
---	0.0015	82		

<u>Coefficients</u>	
D ₈₅ = 0.0308 mm	D ₃₀ = 0.0038 mm
D ₆₀ = 0.0097 mm	D ₁₅ = N/A
D ₅₀ = 0.0075 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

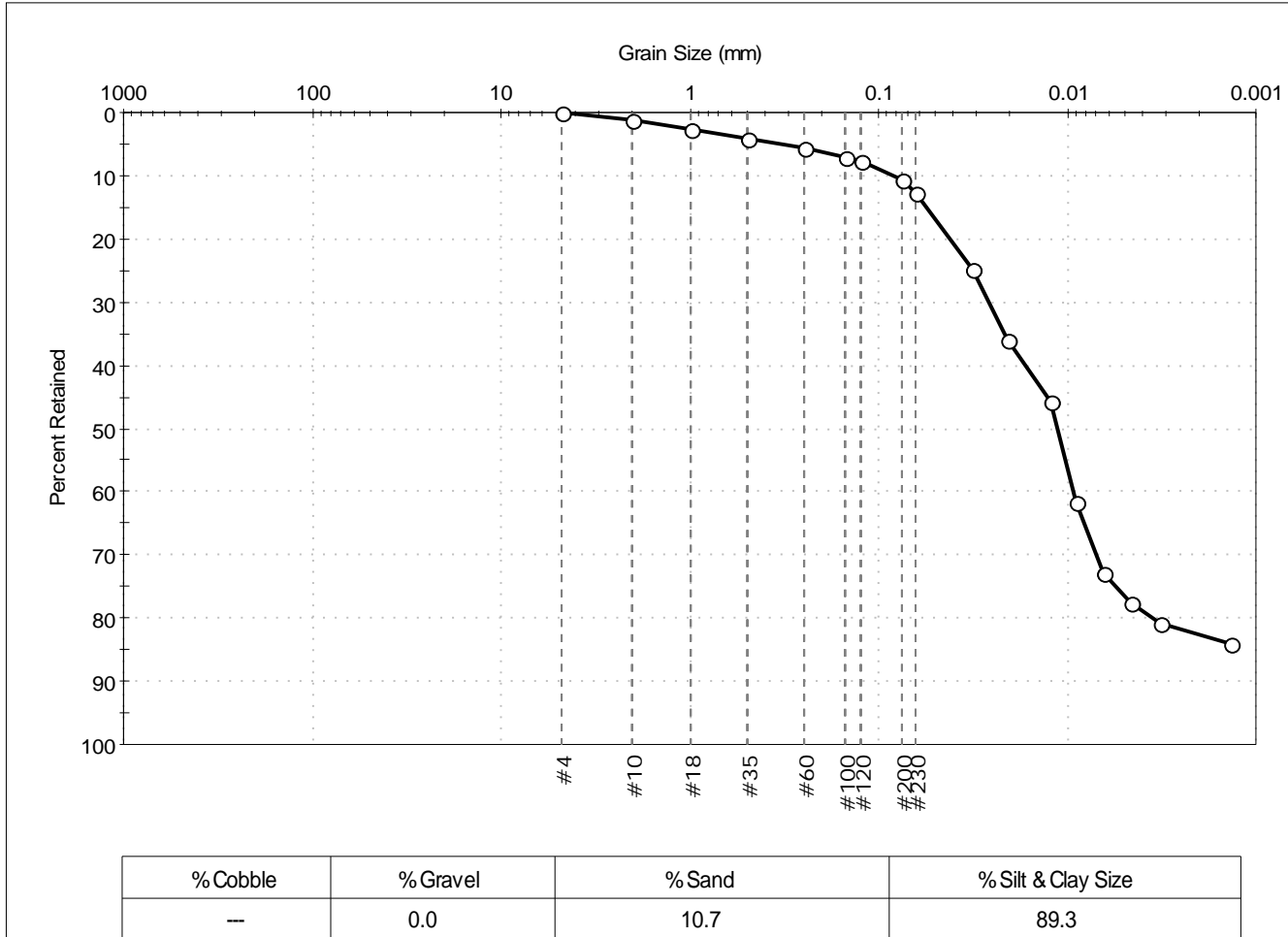
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 226-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0307	Test Date: 10/29/14	Test Id: 310519	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	3		
#35	0.50	4		
#60	0.25	6		
#100	0.15	7		
#120	0.12	8		
#200	0.075	11		
#230	0.063	13		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	25		
---	0.0208	36		
---	0.0123	46		
---	0.0089	62		
---	0.0064	73		
---	0.0046	78		
---	0.0032	81		
---	0.0014	84		

Coefficients	
D ₈₅ = 0.0553 mm	D ₃₀ = 0.0070 mm
D ₆₀ = 0.0167 mm	D ₁₅ = N/A
D ₅₀ = 0.0112 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

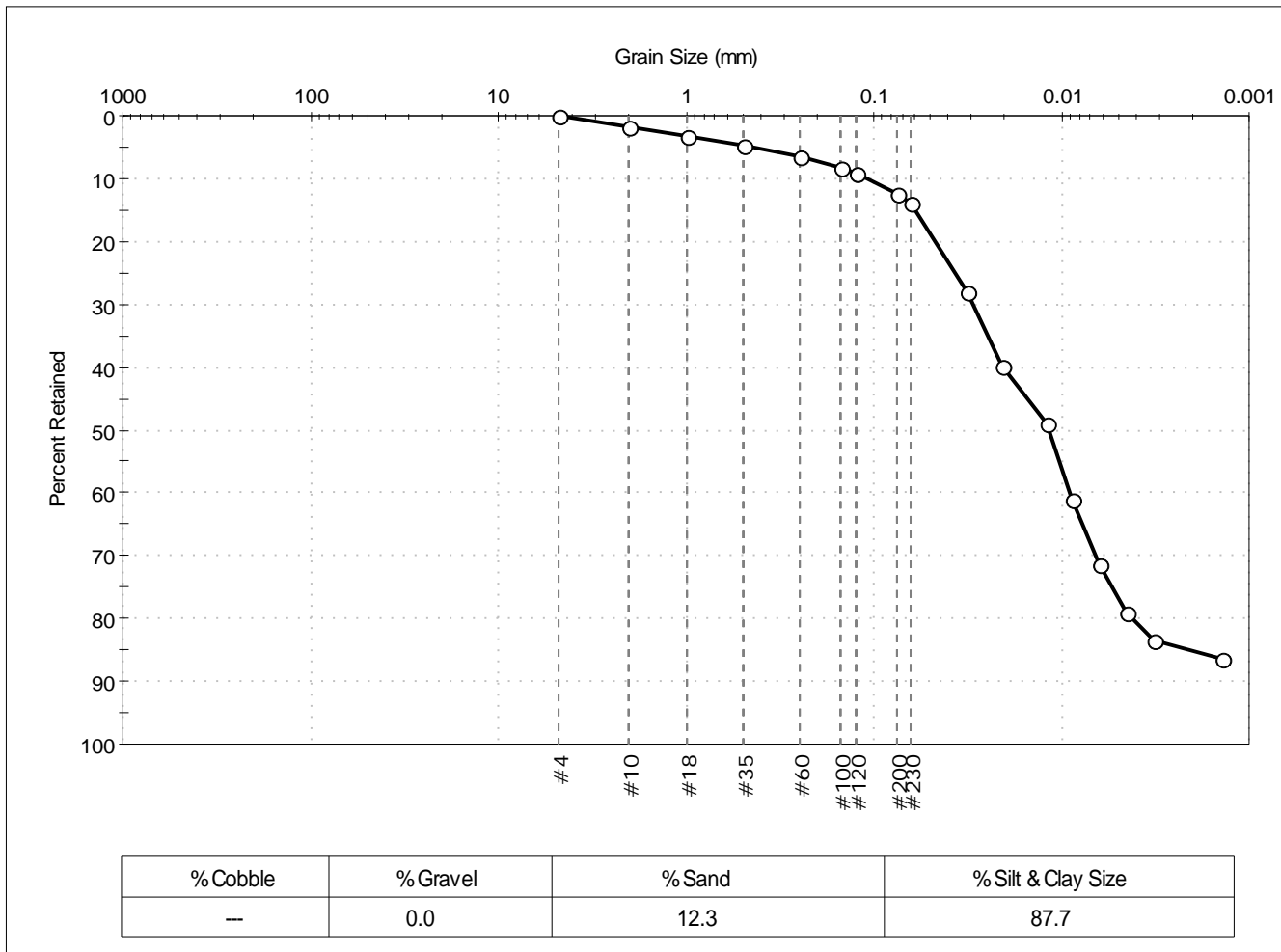
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 226-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0308	Test Date: 10/30/14	Test Id: 310520	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	3		
#35	0.50	5		
#60	0.25	7		
#100	0.15	8		
#120	0.12	9		
#200	0.075	12		
#230	0.063	14		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0318	28		
---	0.0206	40		
---	0.0121	49		
---	0.0088	61		
---	0.0063	71		
---	0.0045	79		
---	0.0032	83		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.0599 mm	D ₃₀ = 0.0066 mm
D ₆₀ = 0.0205 mm	D ₁₅ = 0.0021 mm
D ₅₀ = 0.0118 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

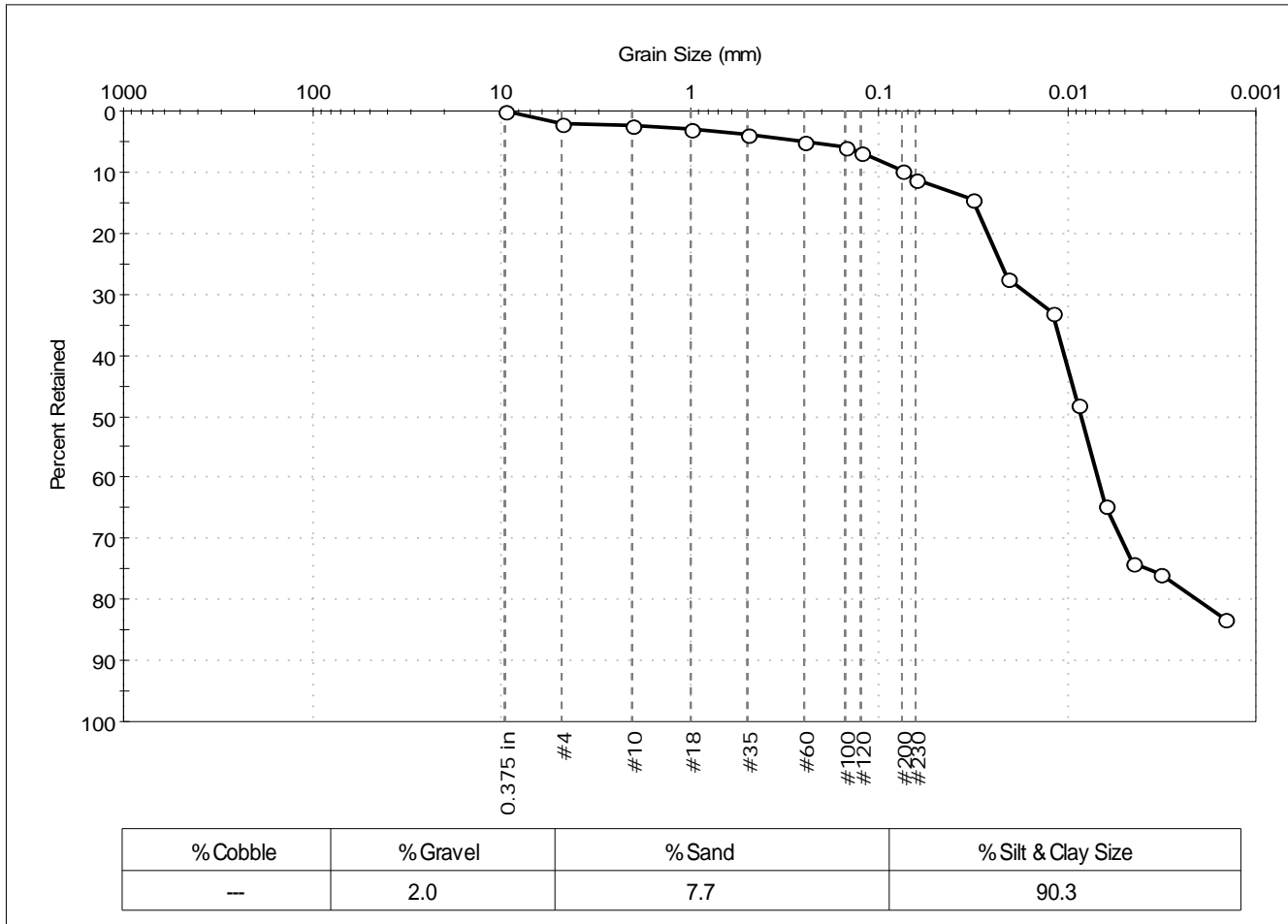
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	226-14LTM	Sample Type:	bag
Sample ID:	NBH14-0309	Test Date:	10/30/14
Depth:	---	Test Id:	310521
Test Comment:	---		
Sample Description:	Wet, dark olive brown silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	2		
#18	1.00	3		
#35	0.50	4		
#60	0.25	5		
#100	0.15	6		
#120	0.12	7		
#200	0.075	10		
#230	0.063	11		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0319	15		
---	0.0206	28		
---	0.0120	33		
---	0.0087	48		
---	0.0063	65		
---	0.0045	74		
---	0.0032	76		
---	0.0015	83		

<u>Coefficients</u>	
D ₈₅ = 0.0314 mm	D ₃₀ = 0.0052 mm
D ₆₀ = 0.0104 mm	D ₁₅ = N/A
D ₅₀ = 0.0084 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

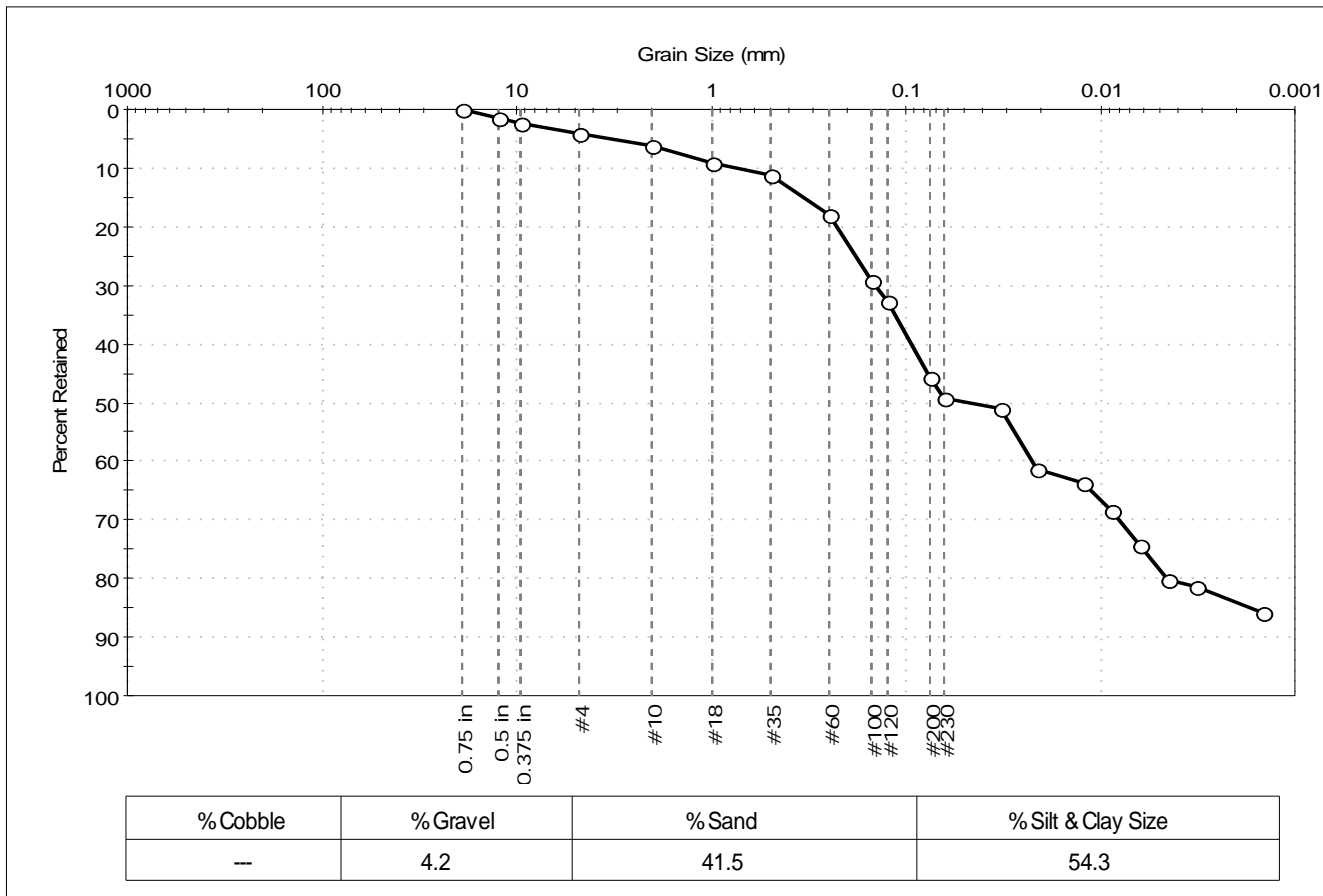
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 227-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0310	Test Date: 10/30/14	Depth: ---	Test Id: 310522
Test Comment: ---			
Sample Description: Wet, dark olive gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.75 in	19.00	0		
0.5 in	12.50	1		
0.375 in	9.50	2		
#4	4.75	4		
#10	2.00	6		
#18	1.00	9		
#35	0.50	11		
#60	0.25	18		
#100	0.15	29		
#120	0.12	33		
#200	0.075	46		
#230	0.063	49		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	51		
---	0.0210	61		
---	0.0123	64		
---	0.0087	68		
---	0.0063	74		
---	0.0045	80		
---	0.0032	81		
---	0.0015	86		

<u>Coefficients</u>	
D ₈₅ = 0.3423 mm	D ₃₀ = 0.0080 mm
D ₆₀ = 0.0940 mm	D ₁₅ = 0.0017 mm
D ₅₀ = 0.0459 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

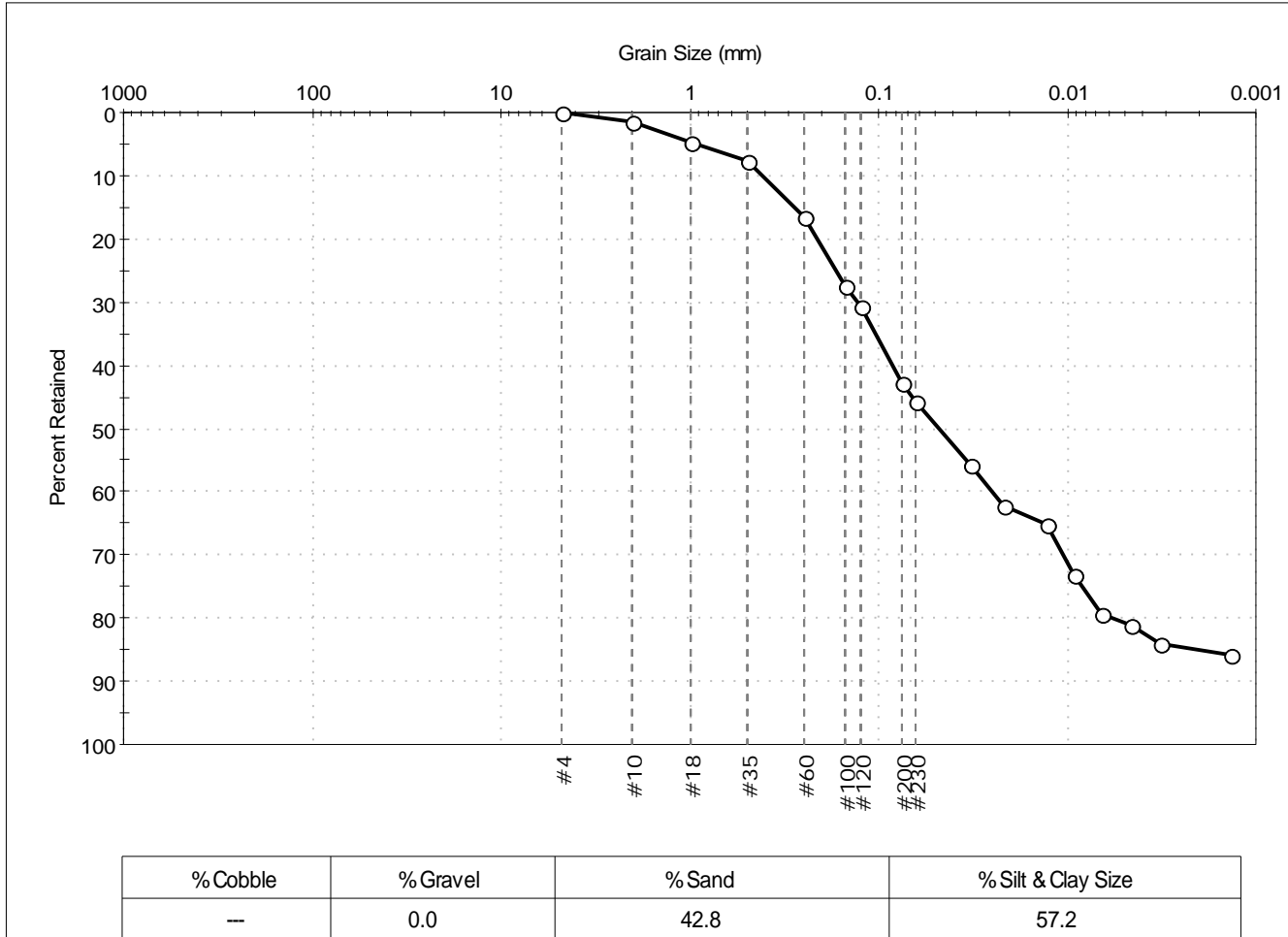
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 227-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0311	Test Date: 10/23/14	Checked By: jdt	
Depth: ---	Test Id: 310523		
Test Comment: ---			
Sample Description: Wet, very dark gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	5		
#35	0.50	8		
#60	0.25	17		
#100	0.15	28		
#120	0.12	31		
#200	0.075	43		
#230	0.063	46		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0323	56		
---	0.0218	62		
---	0.0127	65		
---	0.0091	73		
---	0.0065	79		
---	0.0046	81		
---	0.0032	84		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.2834 mm	D ₃₀ = 0.0104 mm
D ₆₀ = 0.0842 mm	D ₁₅ = 0.0021 mm
D ₅₀ = 0.0475 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

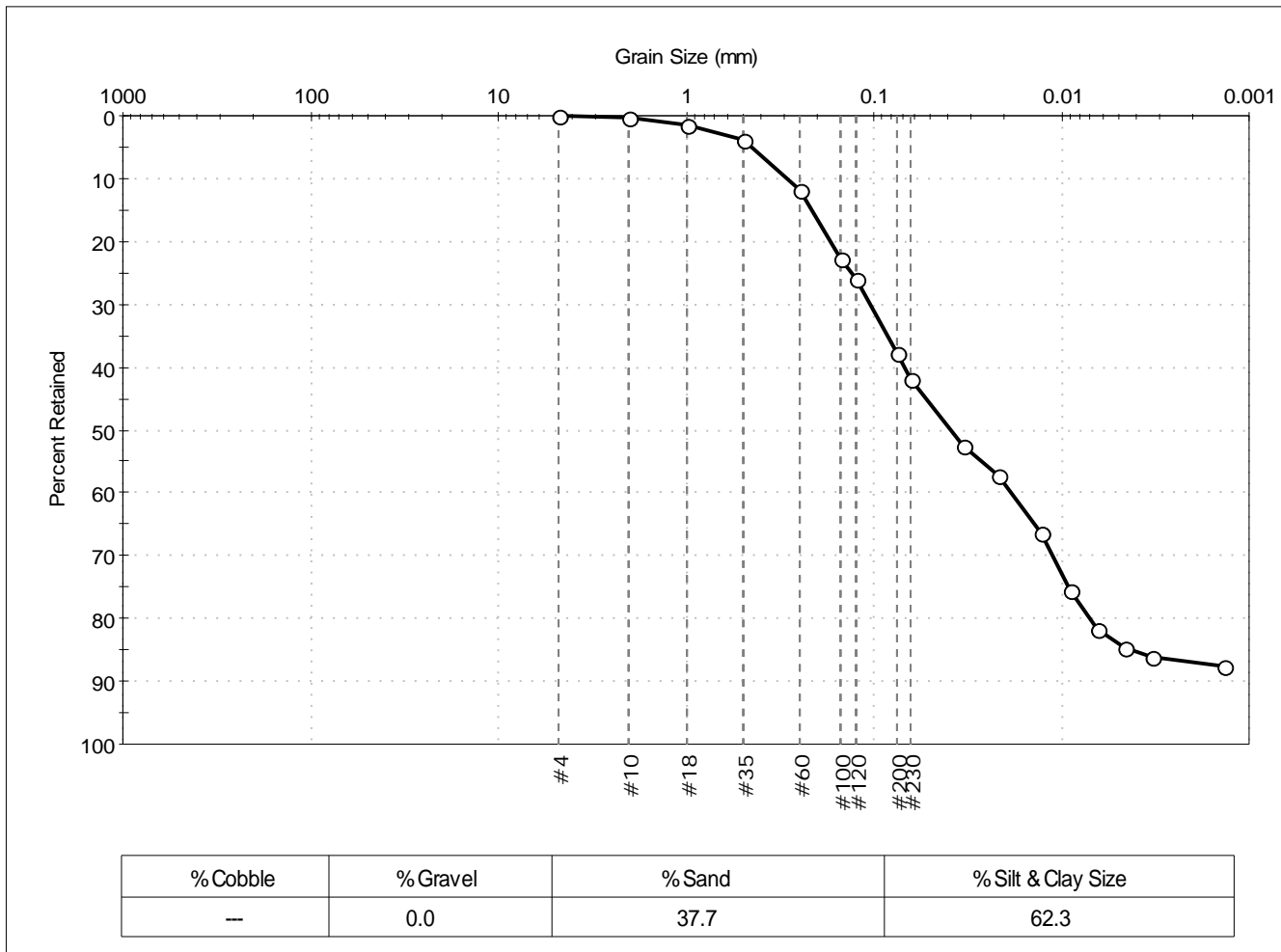
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 227-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0311DUP	Test Date: 10/23/14	Checked By: jdt	
Depth: ---	Test Id: 310524		
Test Comment: ---			
Sample Description: Wet, very dark gray sandy silt			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	4		
#60	0.25	12		
#100	0.15	23		
#120	0.12	26		
#200	0.075	38		
#230	0.063	42		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0335	53		
---	0.0217	57		
---	0.0127	66		
---	0.0090	75		
---	0.0065	82		
---	0.0046	85		
---	0.0033	86		
---	0.0014	88		

<u>Coefficients</u>	
D ₈₅ = 0.2155 mm	D ₃₀ = 0.0111 mm
D ₆₀ = 0.0680 mm	D ₁₅ = 0.0043 mm
D ₅₀ = 0.0388 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

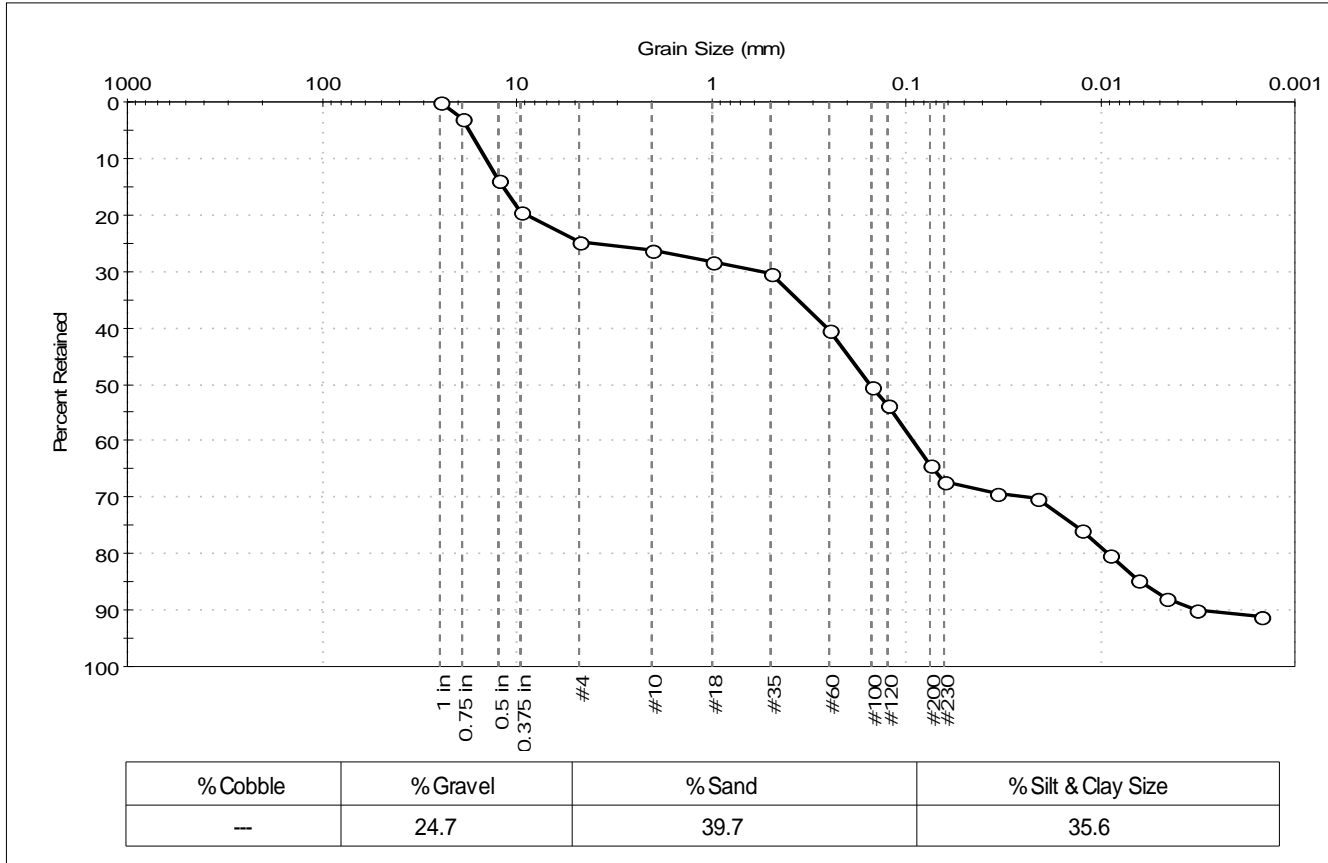
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 227-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0312	Test Date: 10/30/14	Checked By: jdt	
Depth: ---	Test Id: 310528		
Test Comment: ---			
Sample Description: Wet, dark olive gray silty sand with gravel			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
1 in	25.00	0		
0.75 in	19.00	3		
0.5 in	12.50	14		
0.375 in	9.50	20		
#4	4.75	25		
#10	2.00	26		
#18	1.00	28		
#35	0.50	31		
#60	0.25	40		
#100	0.15	50		
#120	0.12	54		
#200	0.075	64		
#230	0.063	67		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0338	69		
---	0.0214	70		
---	0.0126	76		
---	0.0090	80		
---	0.0064	85		
---	0.0046	88		
---	0.0033	90		
---	0.0015	91		

Coefficients

D ₈₅ = 11.8966 mm	D ₃₀ = 0.0248 mm
D ₆₀ = 0.2549 mm	D ₁₅ = 0.0062 mm
D ₅₀ = 0.1536 mm	D ₁₀ = 0.0033 mm
C _u = 77.242	C _c = 0.731

Classification

<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

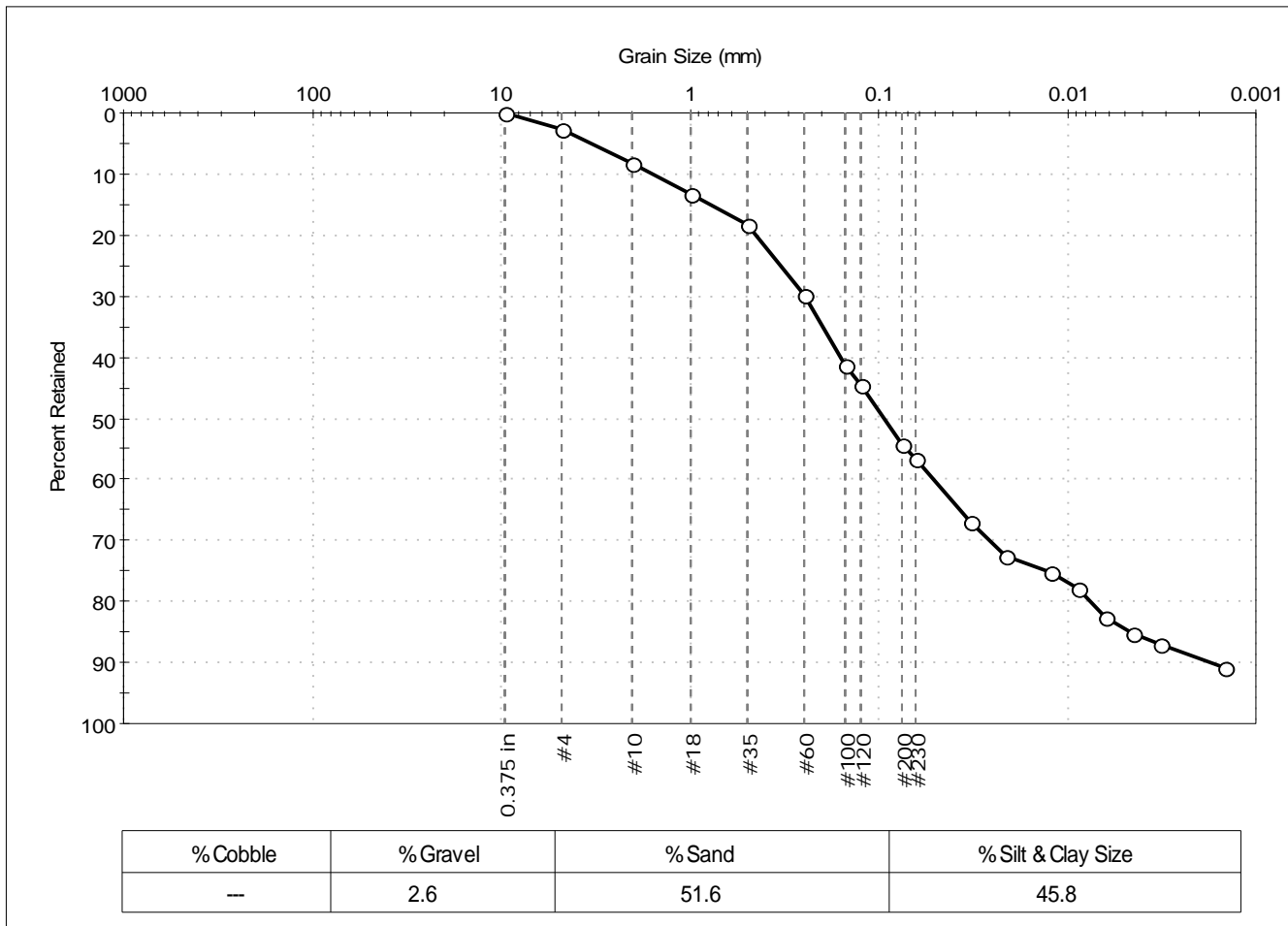
Specific Gravity : 2.65

Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 227-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0313
 Test Date: 10/30/14
 Checked By: jdt
 Depth: ---
 Test Id: 310525
 Test Comment: ---
 Sample Description: Wet, dark olive brown silty sand
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	3		
#10	2.00	8		
#18	1.00	13		
#35	0.50	18		
#60	0.25	30		
#100	0.15	41		
#120	0.12	44		
#200	0.075	54		
#230	0.063	57		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0328	67		
---	0.0212	72		
---	0.0124	75		
---	0.0088	78		
---	0.0063	83		
---	0.0045	85		
---	0.0032	87		
---	0.0015	91		

Coefficients

D ₈₅ = 0.7868 mm	D ₃₀ = 0.0258 mm
D ₆₀ = 0.1594 mm	D ₁₅ = 0.0047 mm
D ₅₀ = 0.0936 mm	D ₁₀ = 0.0018 mm
C _u = 88.556	C _c = 2.320

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

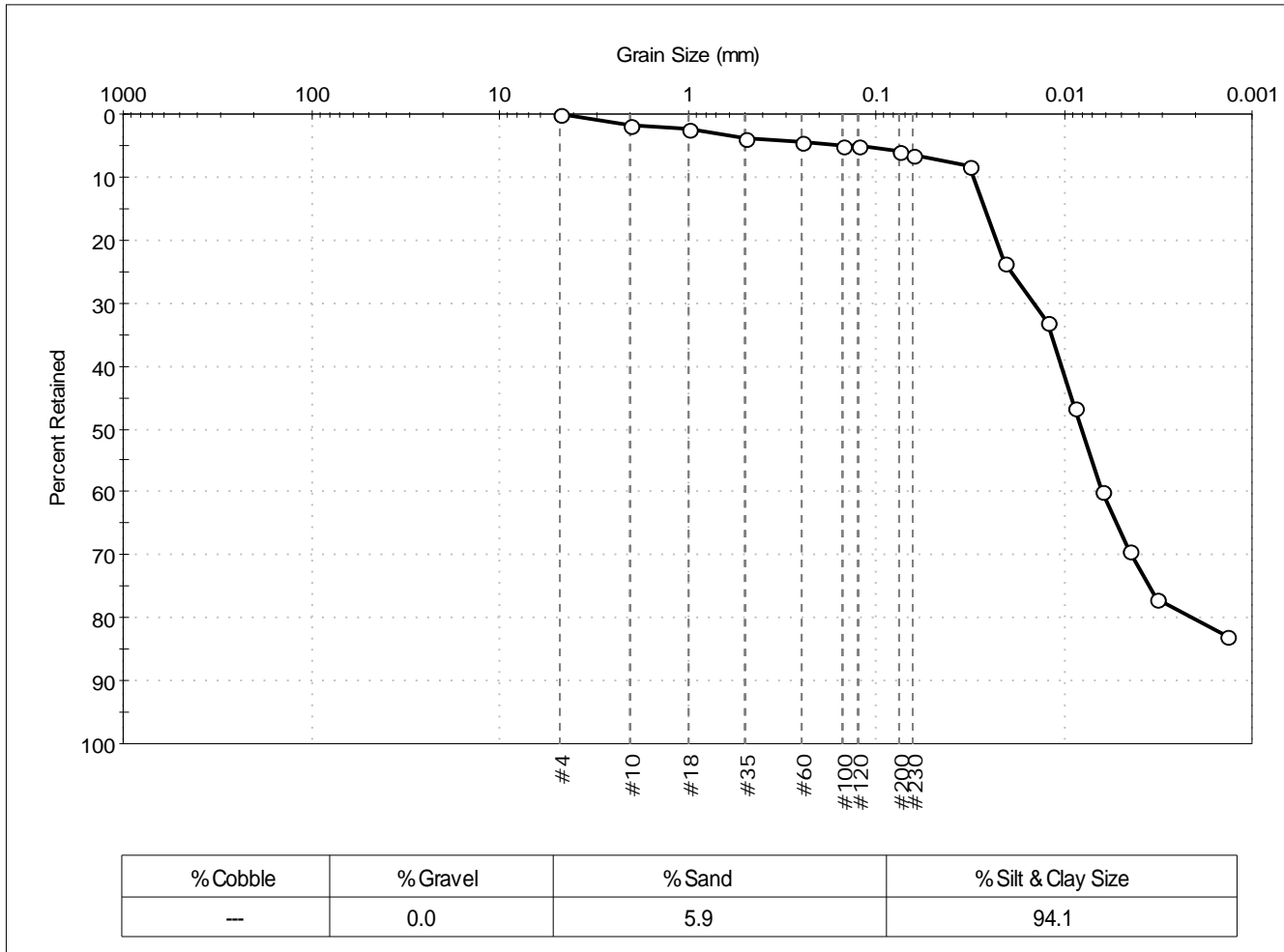
Sample/Test Description

Sand/Gravel Particle Shape : ---
 Sand/Gravel Hardness : ---
 Dispersion Device : Apparatus A - Mech Mixer
 Dispersion Period : 1 minute
 Specific Gravity : 2.65
 Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 217-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0314
 Test Date: 10/23/14
 Checked By: jdt
 Depth: ---
 Test Id: 310526
 Test Comment: ---
 Sample Description: Wet, very dark gray silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	2		
#35	0.50	4		
#60	0.25	4		
#100	0.15	5		
#120	0.12	5		
#200	0.075	6		
#230	0.063	7		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	8		
---	0.0208	24		
---	0.0122	33		
---	0.0088	46		
---	0.0063	60		
---	0.0045	69		
---	0.0032	77		
---	0.0013	83		

<u>Coefficients</u>	
D ₈₅ = 0.0264 mm	D ₃₀ = 0.0044 mm
D ₆₀ = 0.0103 mm	D ₁₅ = N/A
D ₅₀ = 0.0081 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

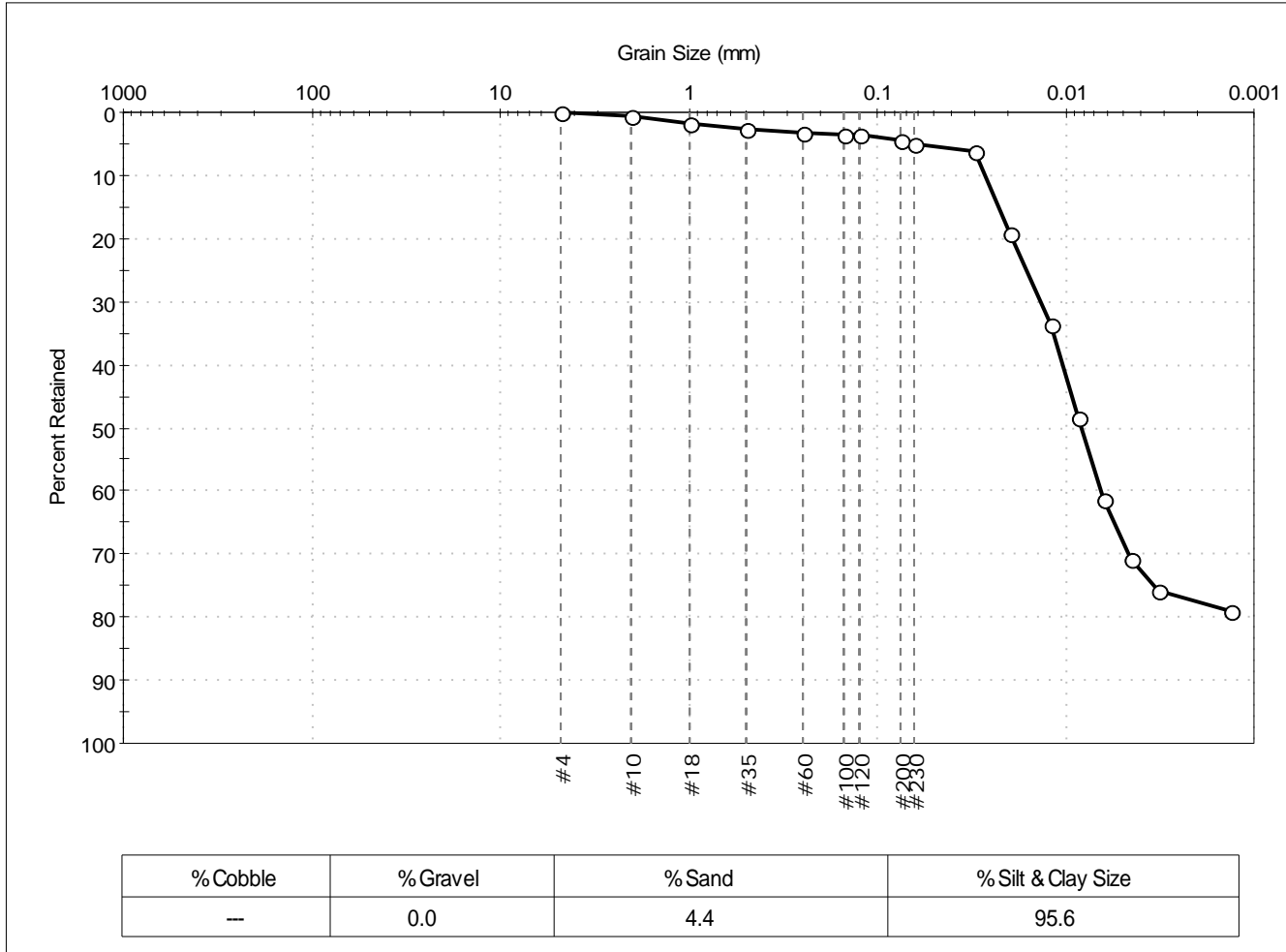
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 217-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0315	Test Date: 10/27/14	Test Id: 310527	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	2		
#35	0.50	3		
#60	0.25	3		
#100	0.15	4		
#120	0.12	4		
#200	0.075	4		
#230	0.063	5		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0305	6		
---	0.0198	19		
---	0.0118	34		
---	0.0086	48		
---	0.0062	61		
---	0.0045	71		
---	0.0032	76		
---	0.0013	79		

<u>Coefficients</u>	
D ₈₅ = 0.0228 mm	D ₃₀ = 0.0046 mm
D ₆₀ = 0.0103 mm	D ₁₅ = N/A
D ₅₀ = 0.0083 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

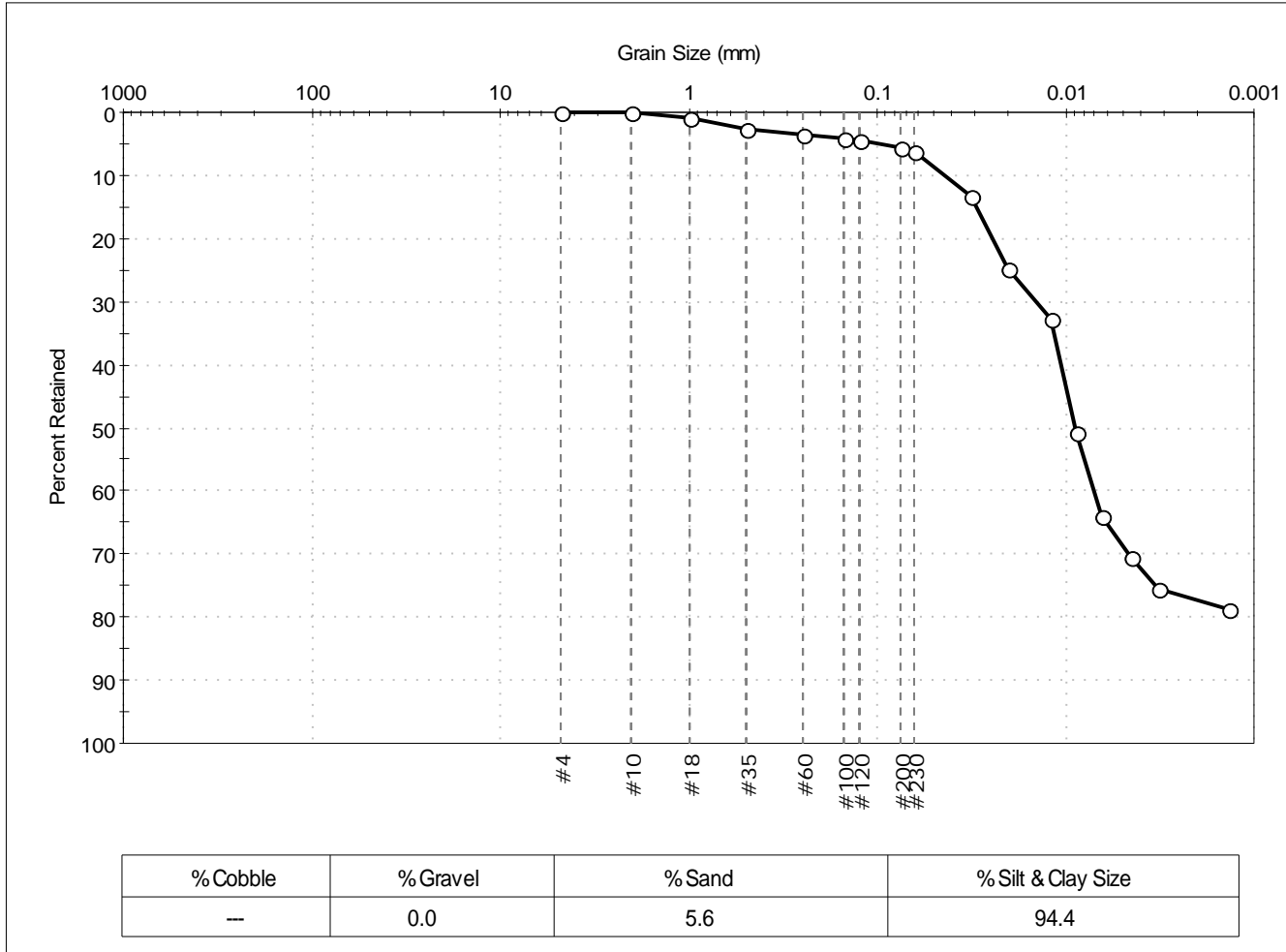
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	217-14LTM	Sample Type:	bag
Sample ID:	NBH14-0316	Test Date:	10/29/14
Depth:	---	Test Id:	310529
Test Comment:	---		
Sample Description:	Wet, very dark gray silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	4		
#100	0.15	4		
#120	0.12	5		
#200	0.075	6		
#230	0.063	6		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0314	13		
---	0.0203	25		
---	0.0120	33		
---	0.0088	51		
---	0.0064	64		
---	0.0045	71		
---	0.0032	75		
---	0.0014	79		

<u>Coefficients</u>	
D ₈₅ = 0.0293 mm	D ₃₀ = 0.0046 mm
D ₆₀ = 0.0106 mm	D ₁₅ = N/A
D ₅₀ = 0.0089 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

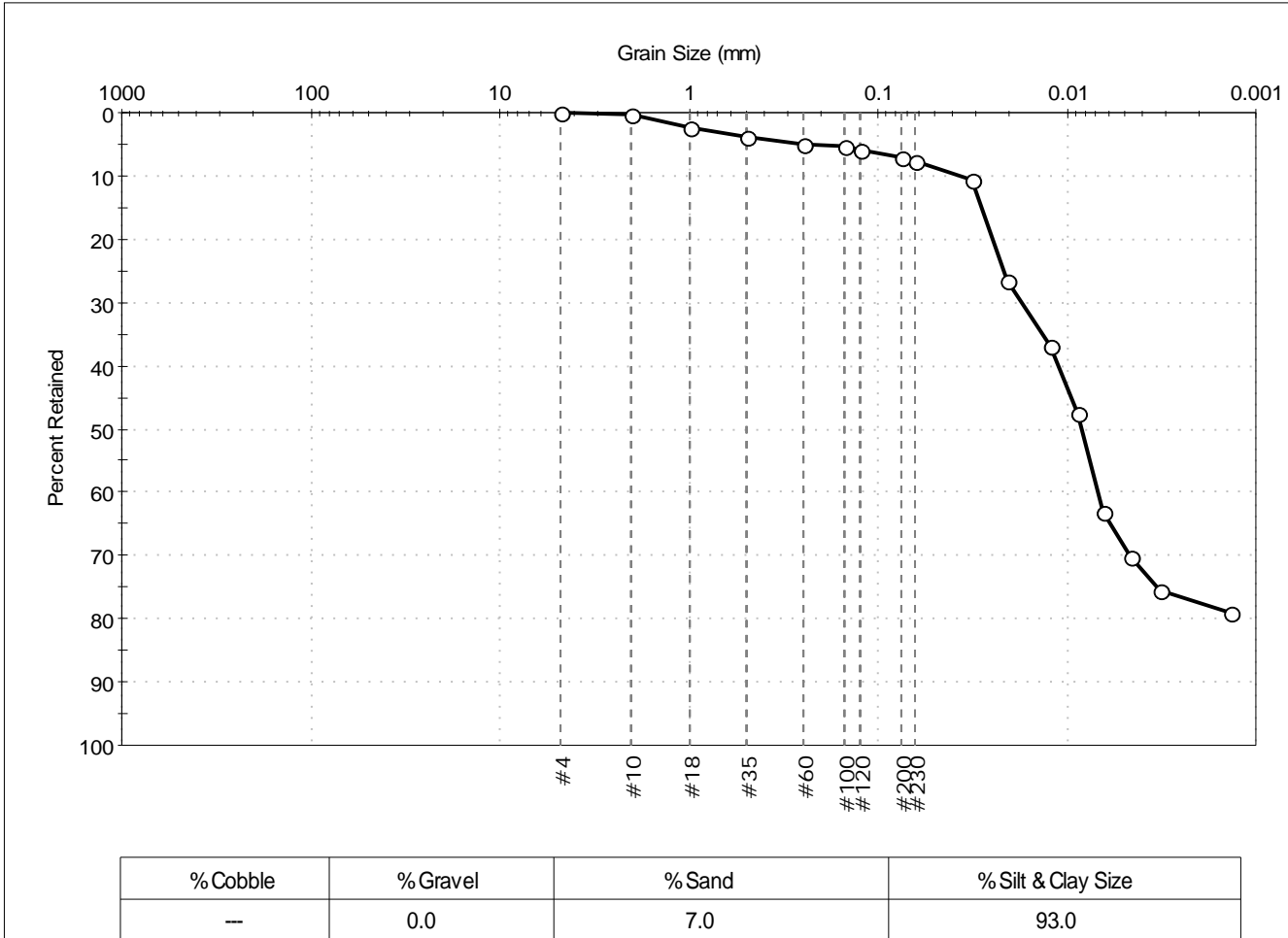
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 217-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0317	Test Date: 10/29/14	Test Id: 310530	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt	Sample Comment: ----

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	4		
#60	0.25	5		
#100	0.15	5		
#120	0.12	6		
#200	0.075	7		
#230	0.063	8		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0317	11		
---	0.0207	26		
---	0.0122	37		
---	0.0088	47		
---	0.0064	63		
---	0.0046	70		
---	0.0032	75		
---	0.0014	79		

<u>Coefficients</u>	
D ₈₅ = 0.0282 mm	D ₃₀ = 0.0046 mm
D ₆₀ = 0.0111 mm	D ₁₅ = N/A
D ₅₀ = 0.0083 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

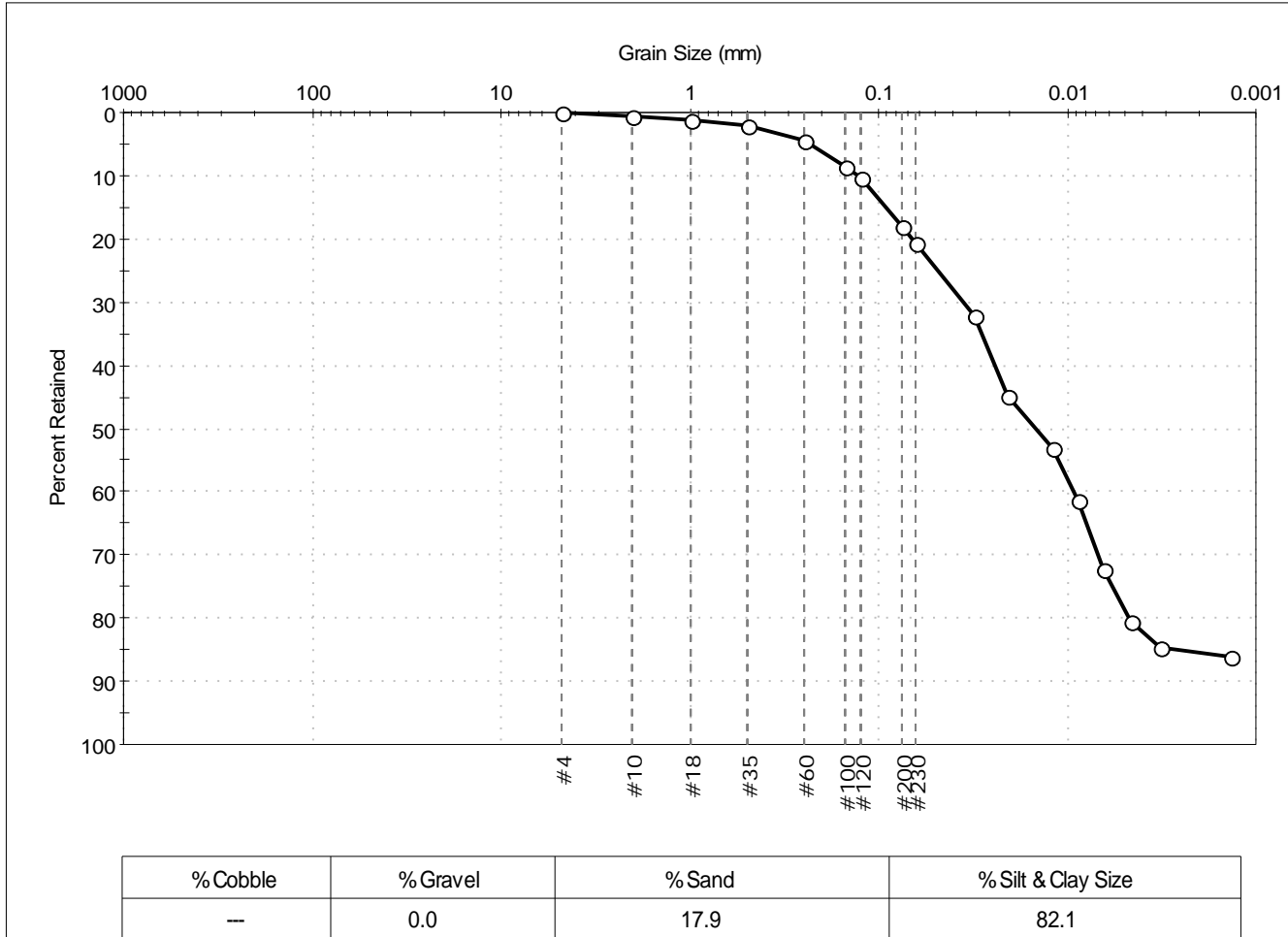
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 212-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0318	Test Date: 10/23/14	Checked By: jdt	
Depth: ---	Test Id: 310531		
Test Comment: ---			
Sample Description: Wet, very dark gray silt with sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	1		
#18	1.00	1		
#35	0.50	2		
#60	0.25	4		
#100	0.15	8		
#120	0.12	10		
#200	0.075	18		
#230	0.063	21		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0313	32		
---	0.0208	45		
---	0.0121	53		
---	0.0088	61		
---	0.0064	72		
---	0.0046	81		
---	0.0032	85		
---	0.0014	86		

<u>Coefficients</u>	
D ₈₅ = 0.0907 mm	D ₃₀ = 0.0068 mm
D ₆₀ = 0.0243 mm	D ₁₅ = 0.0028 mm
D ₅₀ = 0.0147 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

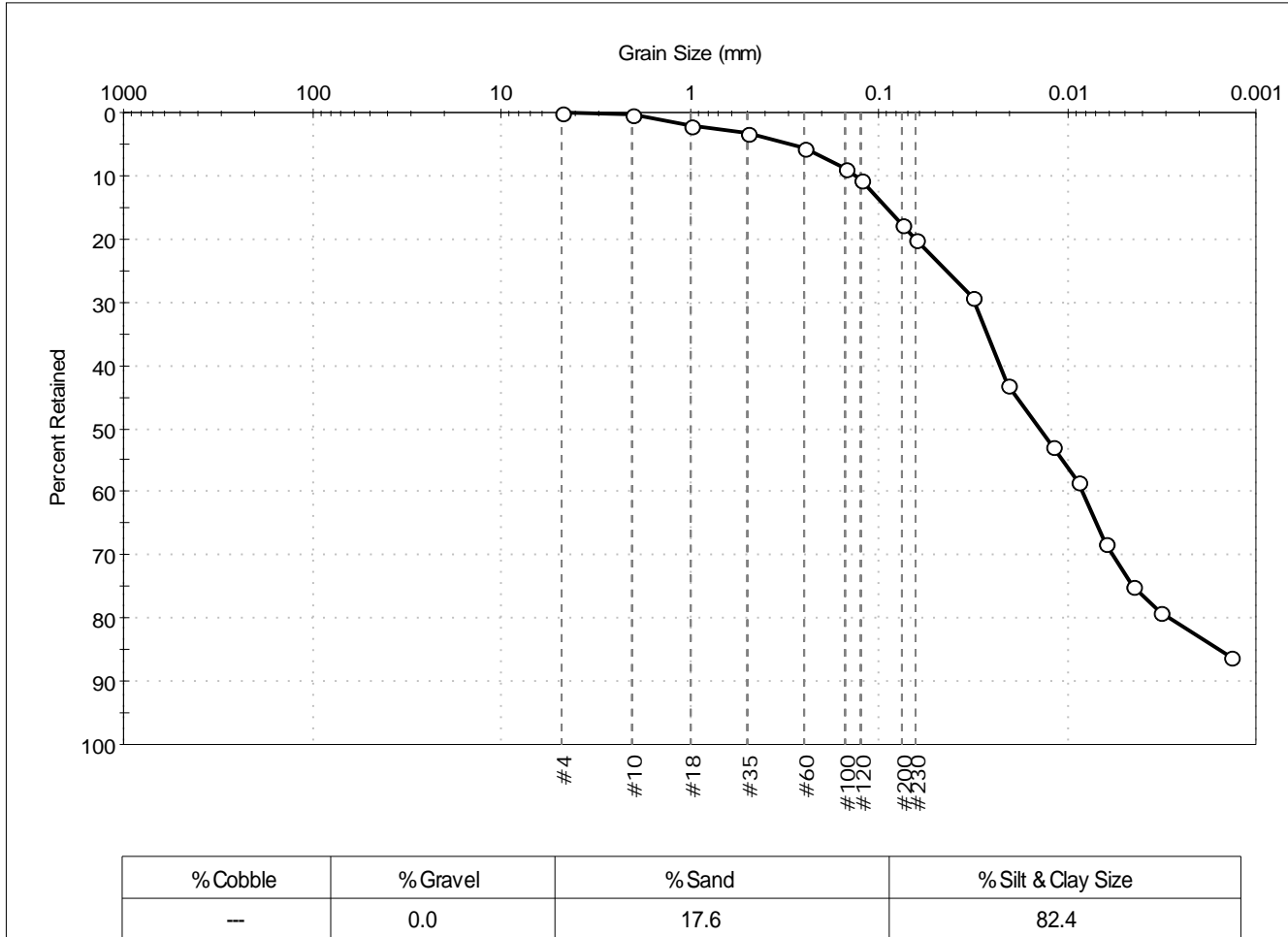
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 212-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0319	Test Date: 10/24/14	Test Id: 310532	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	2		
#35	0.50	3		
#60	0.25	6		
#100	0.15	9		
#120	0.12	11		
#200	0.075	18		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0315	29		
---	0.0206	43		
---	0.0121	53		
---	0.0087	58		
---	0.0063	68		
---	0.0045	75		
---	0.0032	79		
---	0.0014	86		

Coefficients	
D ₈₅ = 0.0911 mm	D ₃₀ = 0.0057 mm
D ₆₀ = 0.0226 mm	D ₁₅ = 0.0016 mm
D ₅₀ = 0.0141 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

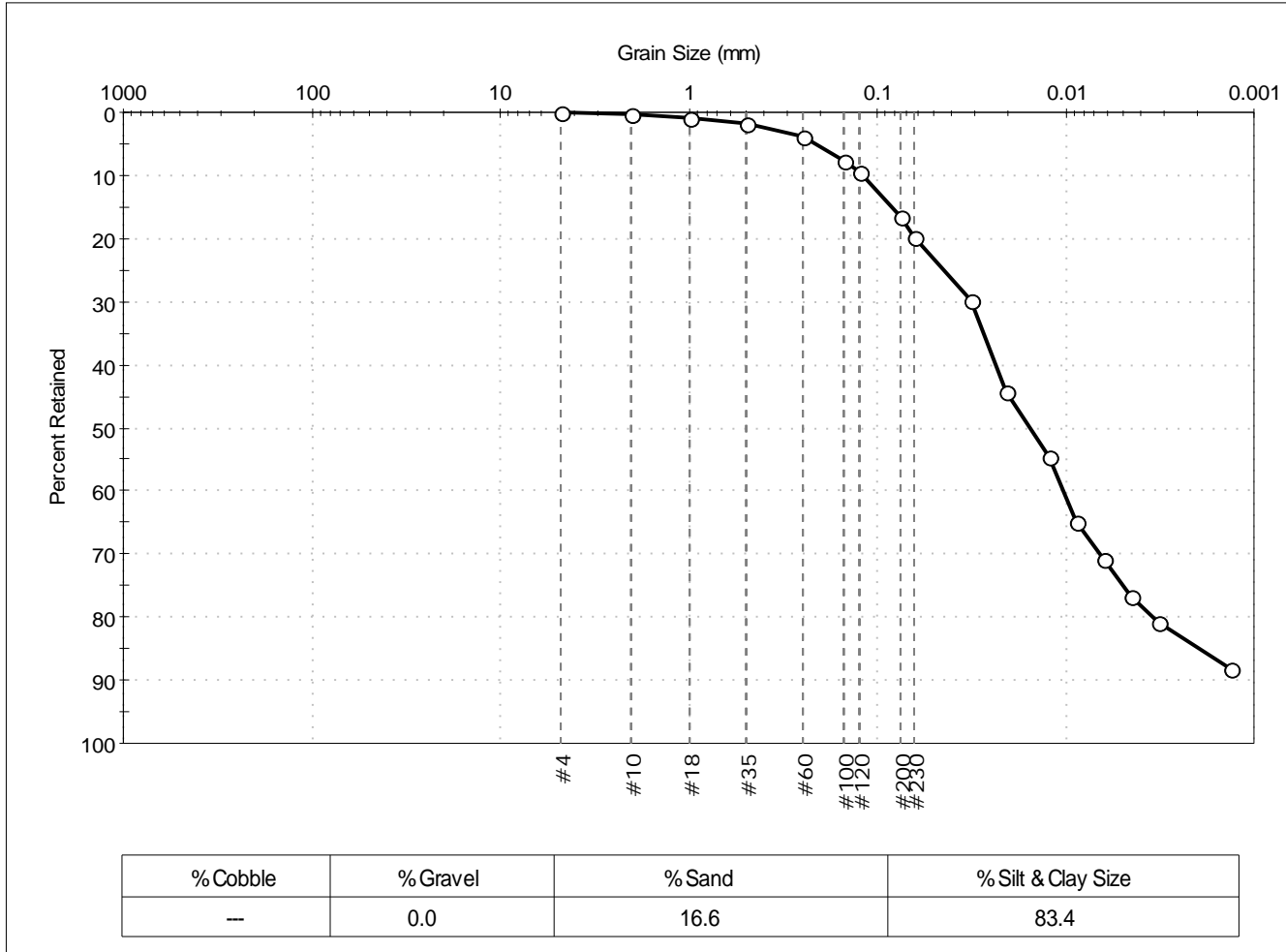
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 212-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0320	Test Date: 10/27/14	Test Id: 310533	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	2		
#60	0.25	4		
#100	0.15	8		
#120	0.12	9		
#200	0.075	17		
#230	0.063	20		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	30		
---	0.0207	44		
---	0.0122	55		
---	0.0088	65		
---	0.0063	71		
---	0.0045	77		
---	0.0032	81		
---	0.0013	88		

<u>Coefficients</u>	
D ₈₅ = 0.0838 mm	D ₃₀ = 0.0066 mm
D ₆₀ = 0.0235 mm	D ₁₅ = 0.0020 mm
D ₅₀ = 0.0155 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

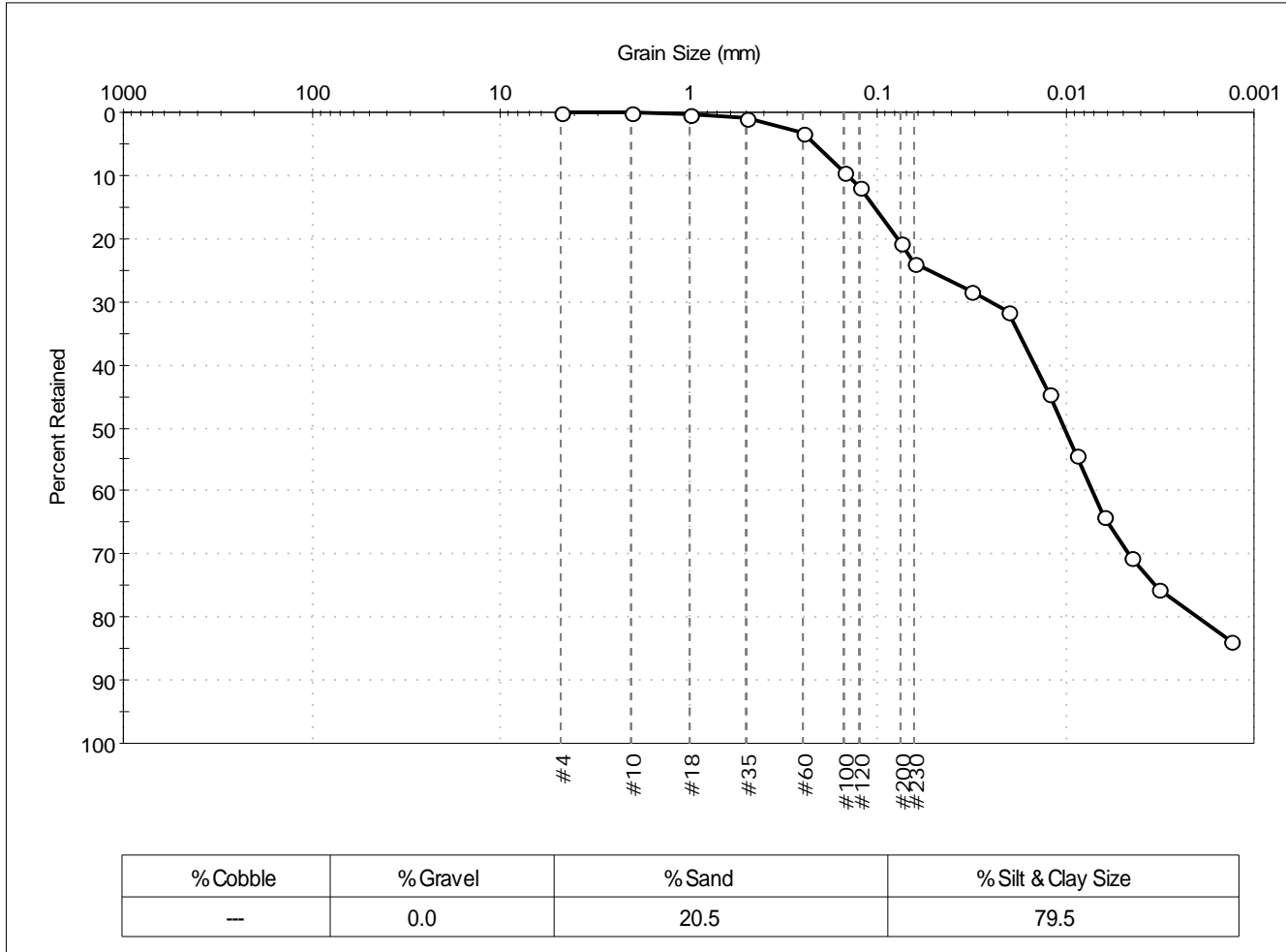
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 212-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0321	Test Date: 10/27/14	Test Id: 310534	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	3		
#100	0.15	9		
#120	0.12	12		
#200	0.075	21		
#230	0.063	24		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0321	28		
---	0.0204	32		
---	0.0121	45		
---	0.0087	54		
---	0.0063	64		
---	0.0045	71		
---	0.0032	76		
---	0.0013	84		

<u>Coefficients</u>	
D ₈₅ = 0.1032 mm	D ₃₀ = 0.0046 mm
D ₆₀ = 0.0145 mm	D ₁₅ = N/A
D ₅₀ = 0.0101 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

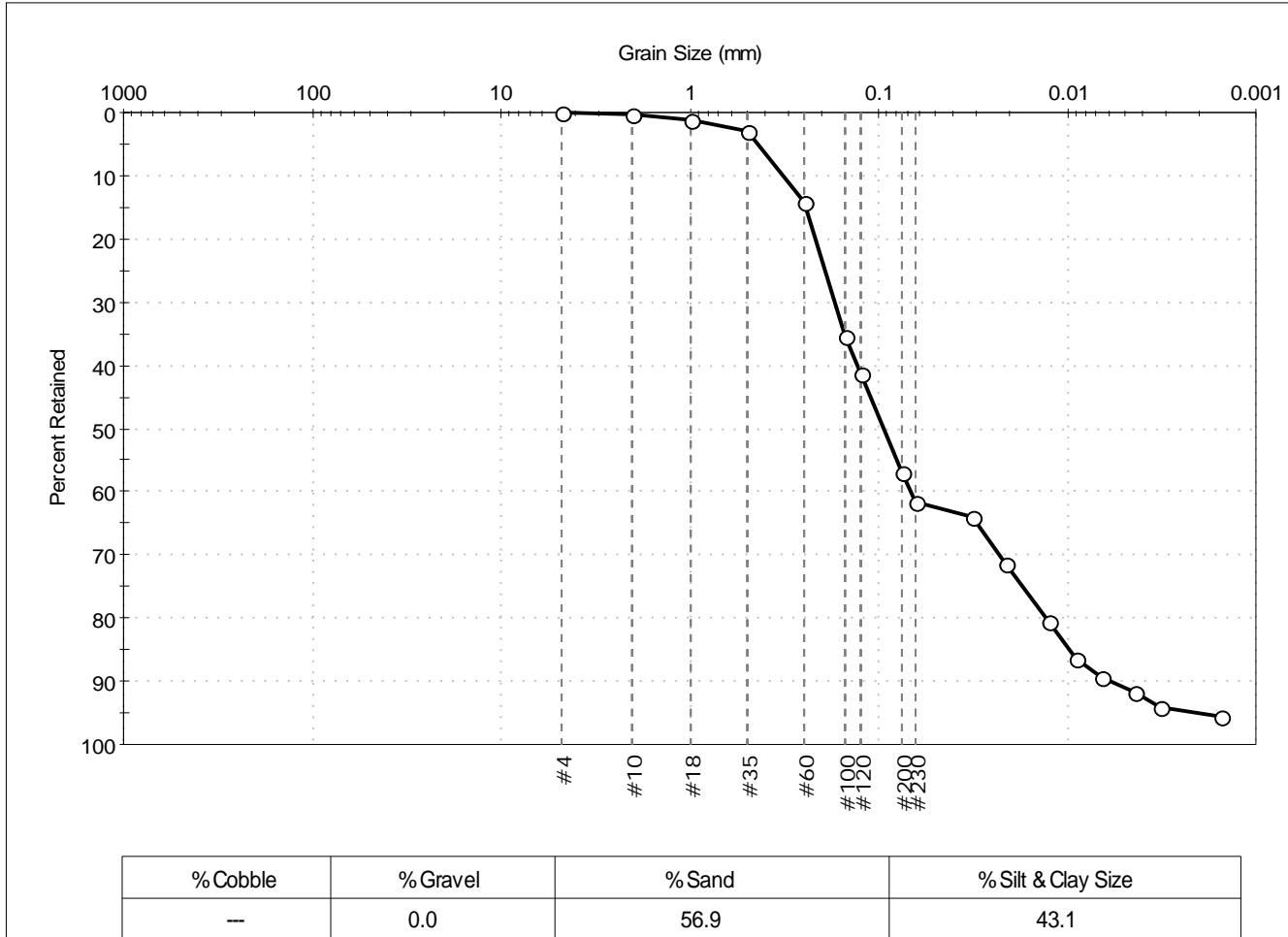
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 211-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0322	Test Date: 11/05/14	Test Id: 310535	
Depth: ---	Test Comment: ---	Sample Description: Wet, dark olive gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	1		
#35	0.50	3		
#60	0.25	14		
#100	0.15	36		
#120	0.12	41		
#200	0.075	57		
#230	0.063	62		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0320	64		
---	0.0211	71		
---	0.0125	80		
---	0.0091	86		
---	0.0065	89		
---	0.0043	92		
---	0.0032	94		
---	0.0016	95		

Coefficients	
D ₈₅ = 0.2451 mm	D ₃₀ = 0.0228 mm
D ₆₀ = 0.1298 mm	D ₁₅ = 0.0098 mm
D ₅₀ = 0.0939 mm	D ₁₀ = 0.0059 mm
C _u = 22.000	C _c = 0.679

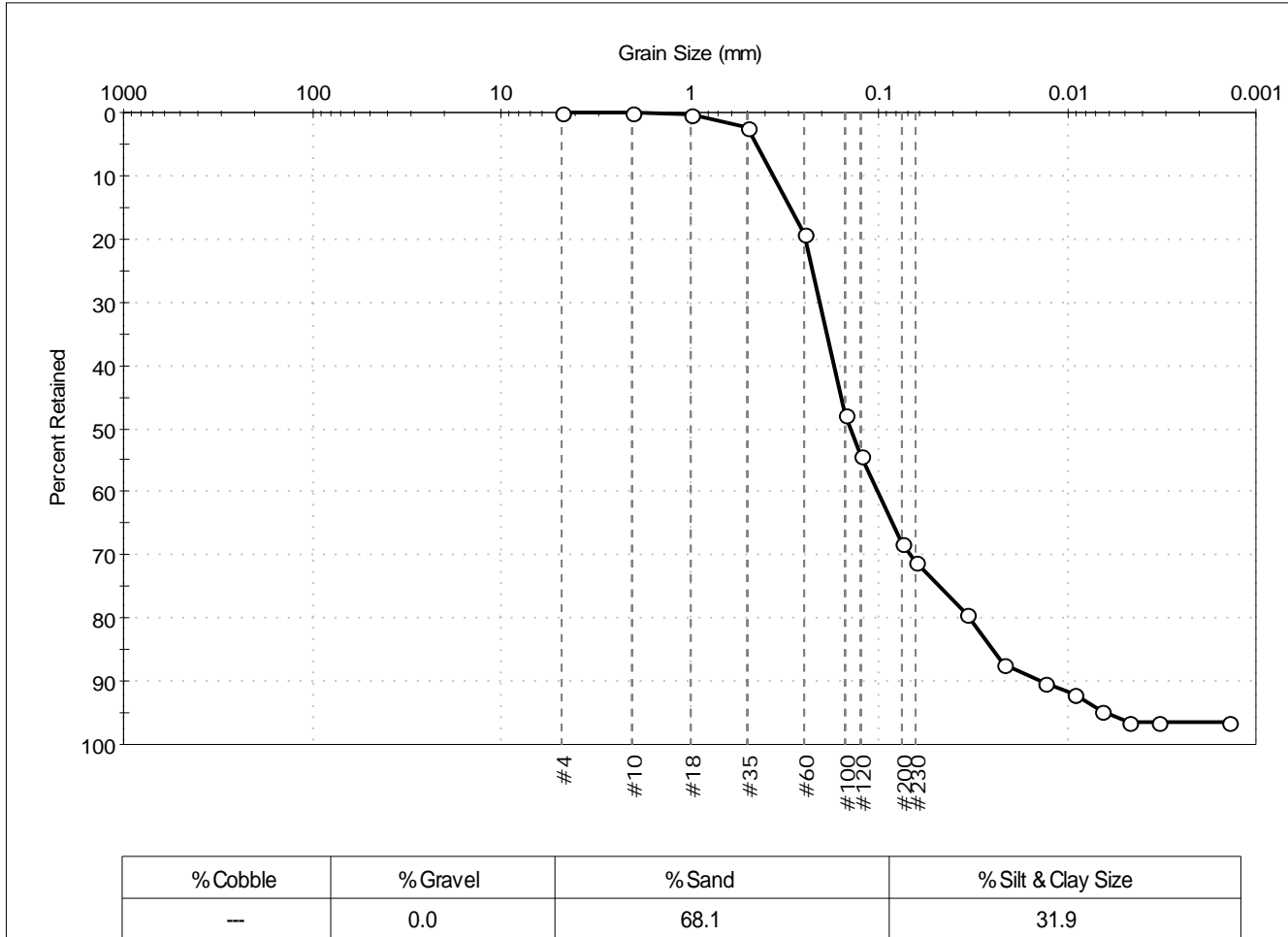
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 211-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0323	Test Date: 10/24/14	Test Id: 310536	
Depth: ---			
Test Comment: ---			
Sample Description: Wet, very dark gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	2		
#60	0.25	19		
#100	0.15	48		
#120	0.12	54		
#200	0.075	68		
#230	0.063	71		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0345	79		
---	0.0218	87		
---	0.0130	90		
---	0.0093	92		
---	0.0066	95		
---	0.0047	96		
---	0.0033	96		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.2956 mm	D ₃₀ = 0.0668 mm
D ₆₀ = 0.1722 mm	D ₁₅ = 0.0250 mm
D ₅₀ = 0.1408 mm	D ₁₀ = 0.0134 mm
C _u = 12.851	C _c = 1.934

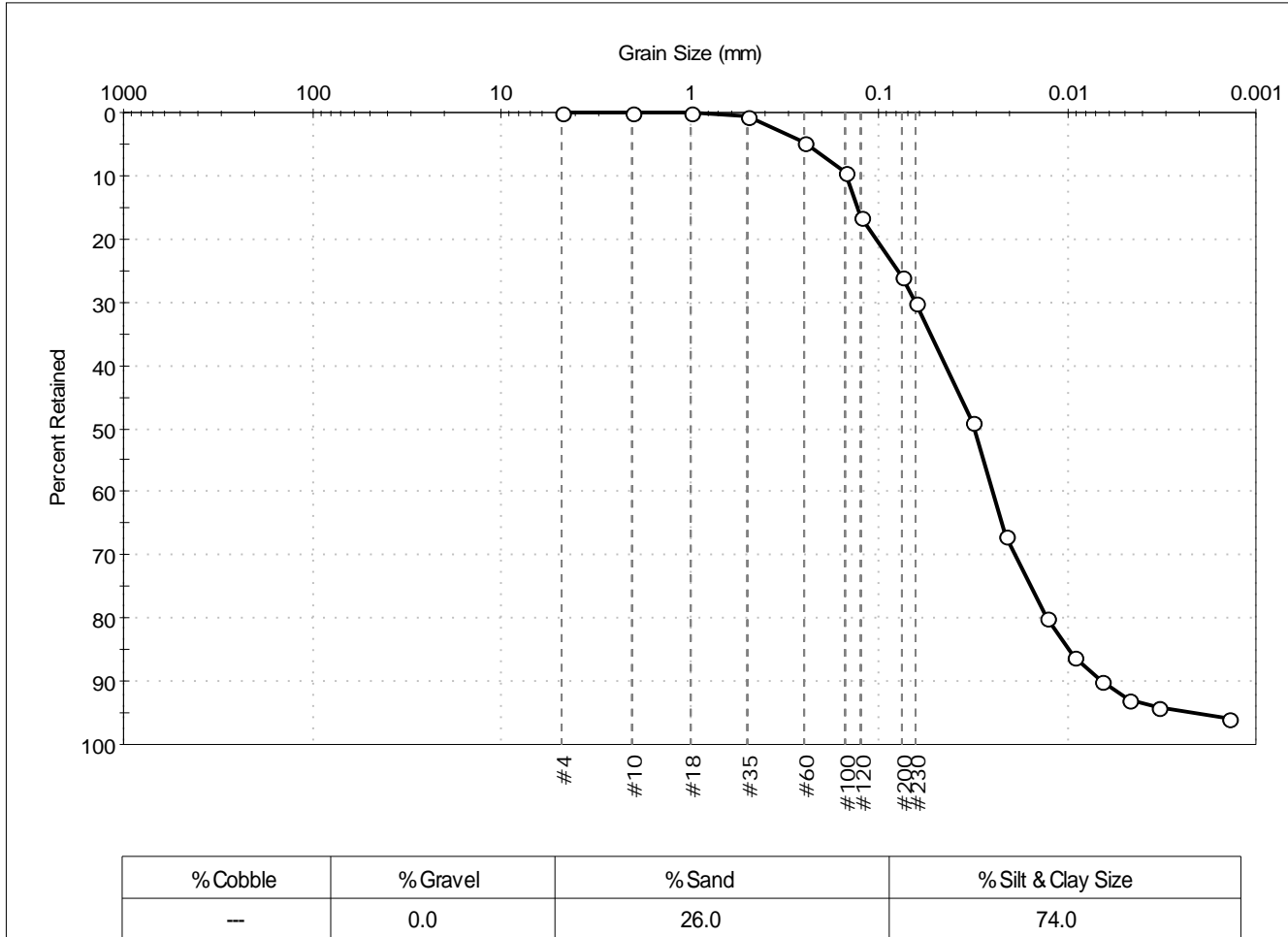
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 211-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0324	Test Date: 10/29/14	Test Id: 310537	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	5		
#100	0.15	9		
#120	0.12	16		
#200	0.075	26		
#230	0.063	30		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0317	49		
---	0.0211	67		
---	0.0128	80		
---	0.0092	86		
---	0.0066	90		
---	0.0047	93		
---	0.0033	94		
---	0.0014	96		

<u>Coefficients</u>	
D ₈₅ = 0.1299 mm	D ₃₀ = 0.0188 mm
D ₆₀ = 0.0440 mm	D ₁₅ = 0.0097 mm
D ₅₀ = 0.0310 mm	D ₁₀ = 0.0066 mm
C _u = 6.667	C _c = 1.217

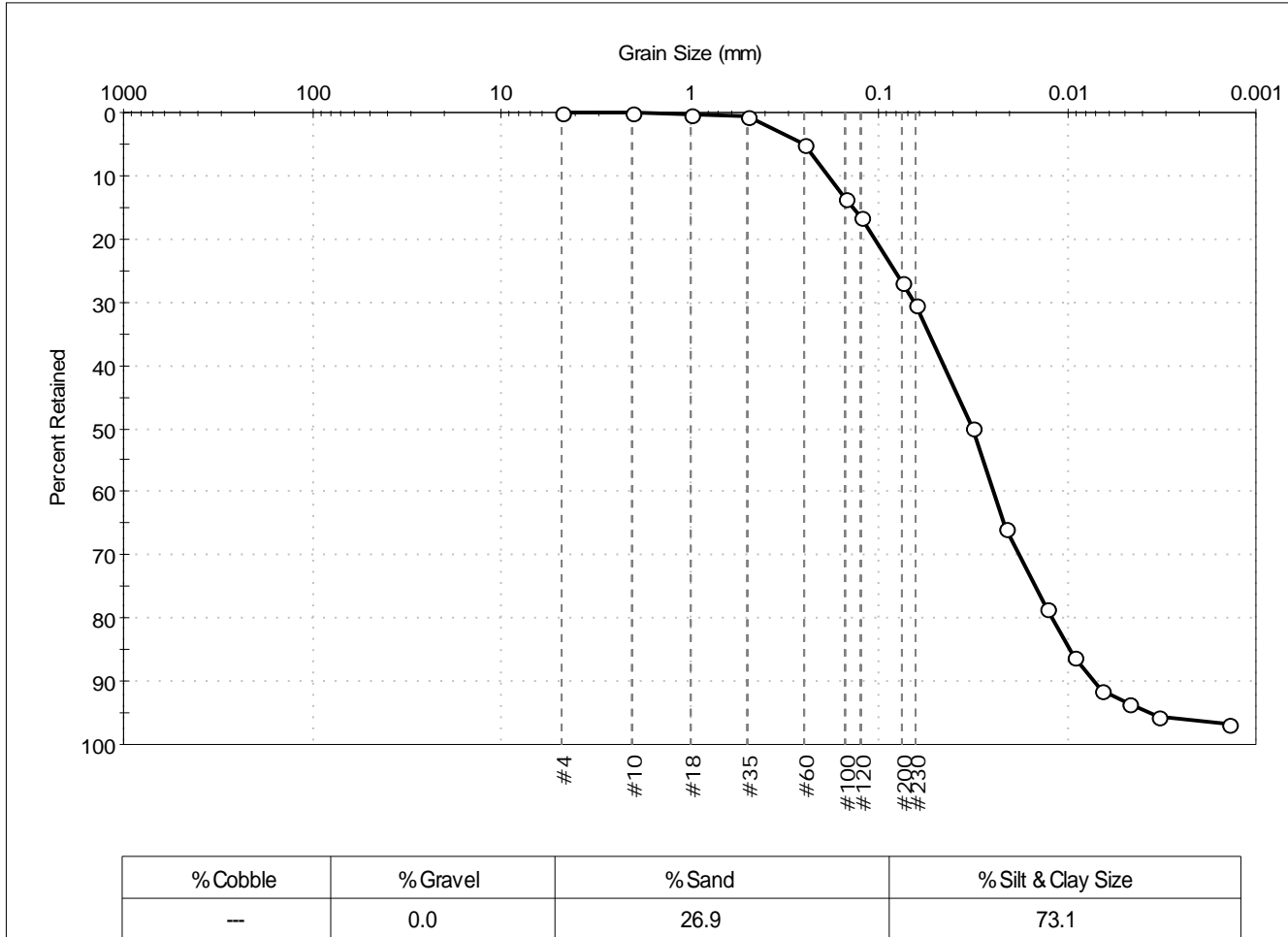
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 211-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0324DUP	Test Date: 11/04/14	Test Id: 310538	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silt with sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	0		
#18	1.00	0		
#35	0.50	1		
#60	0.25	5		
#100	0.15	14		
#120	0.12	17		
#200	0.075	27		
#230	0.063	31		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0316	50		
---	0.0214	66		
---	0.0128	79		
---	0.0092	86		
---	0.0066	91		
---	0.0047	94		
---	0.0033	96		
---	0.0014	97		

<u>Coefficients</u>	
D ₈₅ = 0.1383 mm	D ₃₀ = 0.0180 mm
D ₆₀ = 0.0449 mm	D ₁₅ = 0.0097 mm
D ₅₀ = 0.0314 mm	D ₁₀ = 0.0072 mm
C _u = 6.236	C _c = 1.002

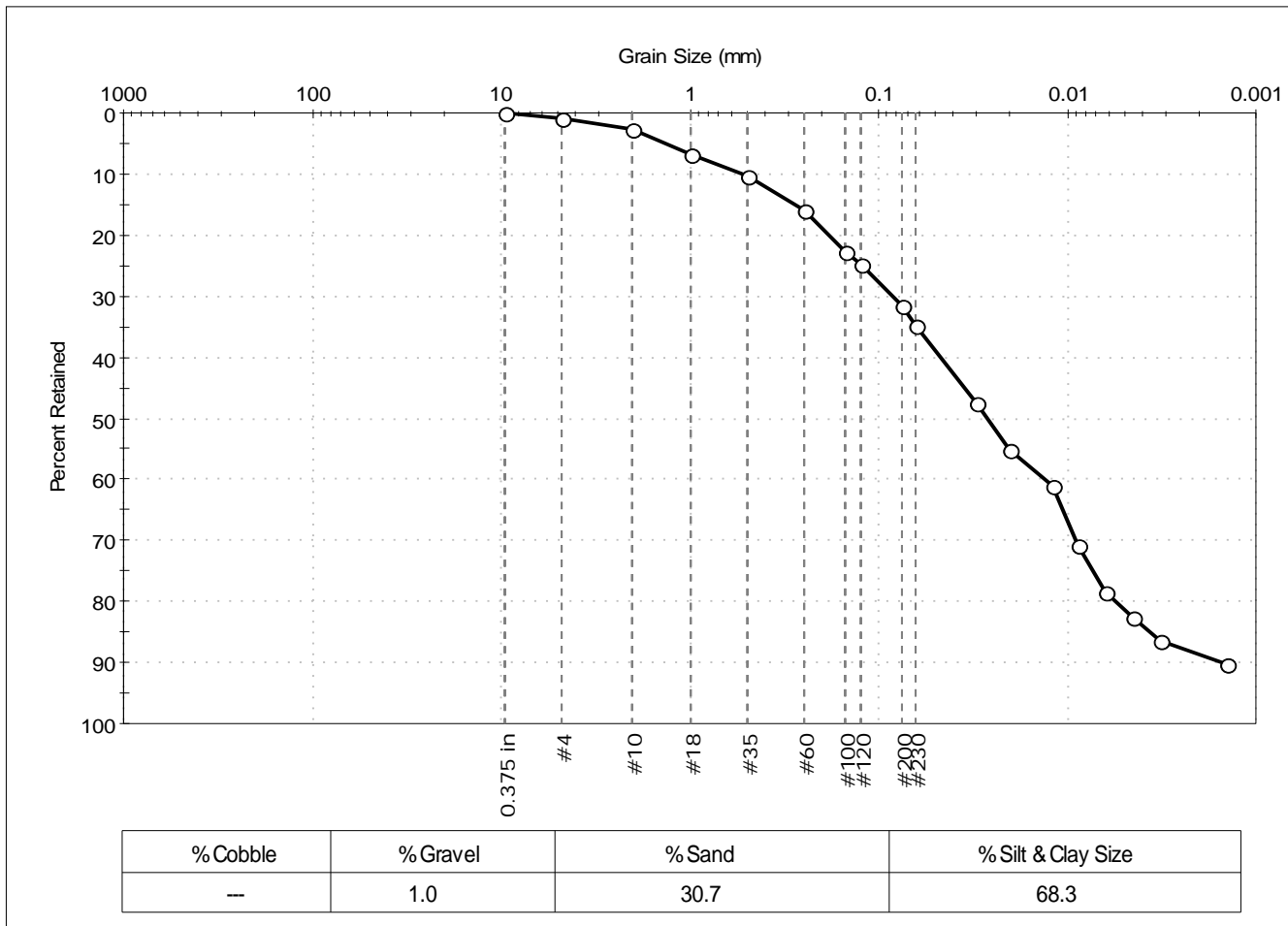
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	211-14LTM	Sample Type:	bag
Sample ID:	NBH14-0325	Test Date:	11/03/14
Depth:	---	Test Id:	310539
Test Comment:	---		
Sample Description:	Wet, dark olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	1		
#10	2.00	3		
#18	1.00	7		
#35	0.50	10		
#60	0.25	16		
#100	0.15	23		
#120	0.12	25		
#200	0.075	32		
#230	0.063	35		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0303	47		
---	0.0204	55		
---	0.0120	61		
---	0.0088	71		
---	0.0063	79		
---	0.0045	82		
---	0.0032	86		
---	0.0014	90		

<u>Coefficients</u>	
D ₈₅ = 0.2809 mm	D ₃₀ = 0.0090 mm
D ₆₀ = 0.0468 mm	D ₁₅ = 0.0036 mm
D ₅₀ = 0.0266 mm	D ₁₀ = 0.0015 mm
C _u = 31.200	C _c = 1.154

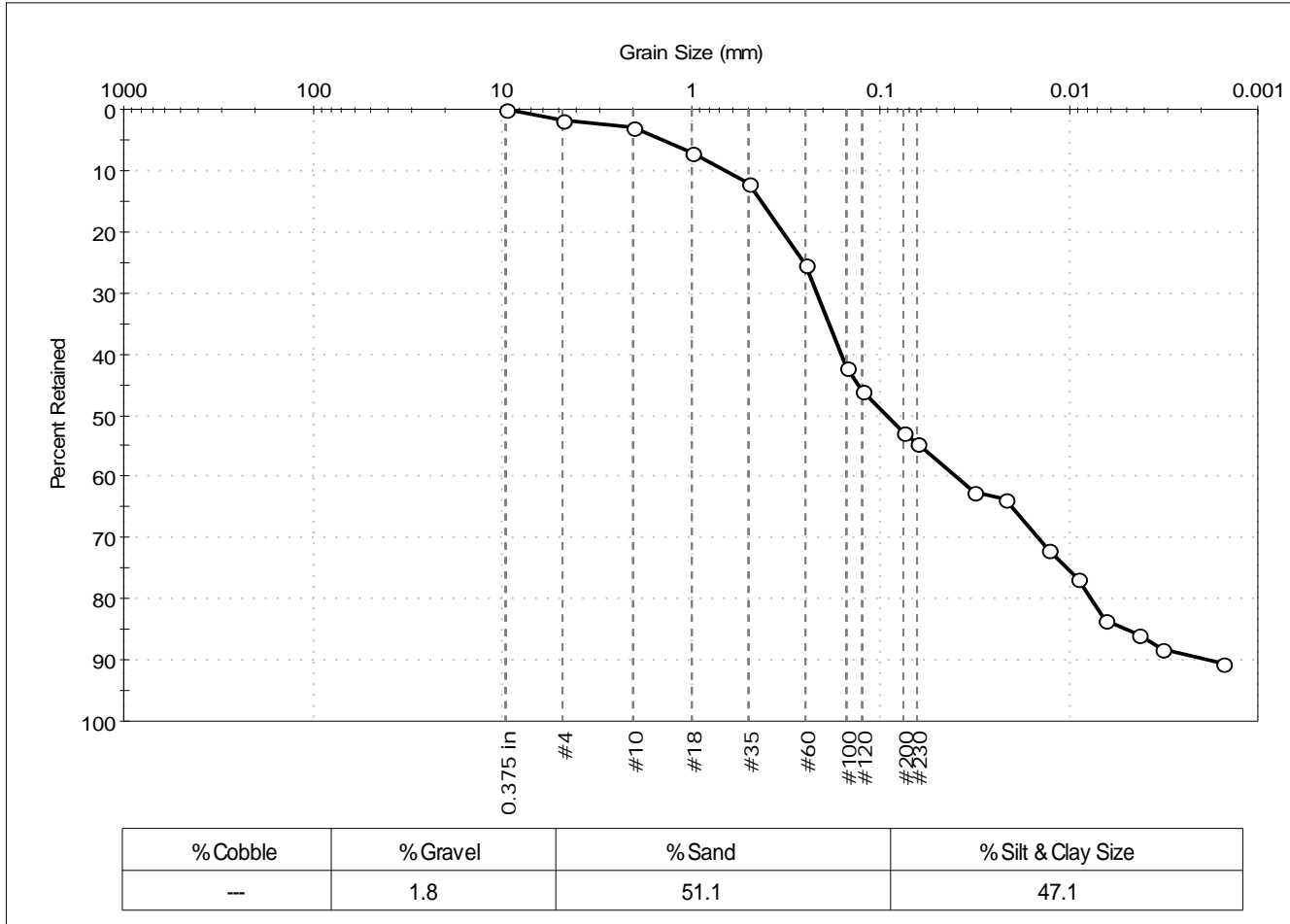
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 204-14LTM	Sample Type: bag	Tested By: jbr	
Sample ID: NBH14-0326	Test Date: 11/03/14	Checked By: jdt	
Depth: ---	Test Id: 310540		
Test Comment: ---			
Sample Description: Wet, dark olive gray silty sand			
Sample Comment: ---			

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	3		
#18	1.00	7		
#35	0.50	12		
#60	0.25	25		
#100	0.15	42		
#120	0.12	46		
#200	0.075	53		
#230	0.063	55		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0317	63		
---	0.0217	64		
---	0.0127	72		
---	0.0090	77		
---	0.0065	84		
---	0.0043	86		
---	0.0032	88		
---	0.0015	91		

<u>Coefficients</u>	
D ₈₅ = 0.4287 mm	D ₃₀ = 0.0144 mm
D ₆₀ = 0.1607 mm	D ₁₅ = 0.0051 mm
D ₅₀ = 0.0928 mm	D ₁₀ = 0.0019 mm
C _u = 84.579	C _c = 0.679

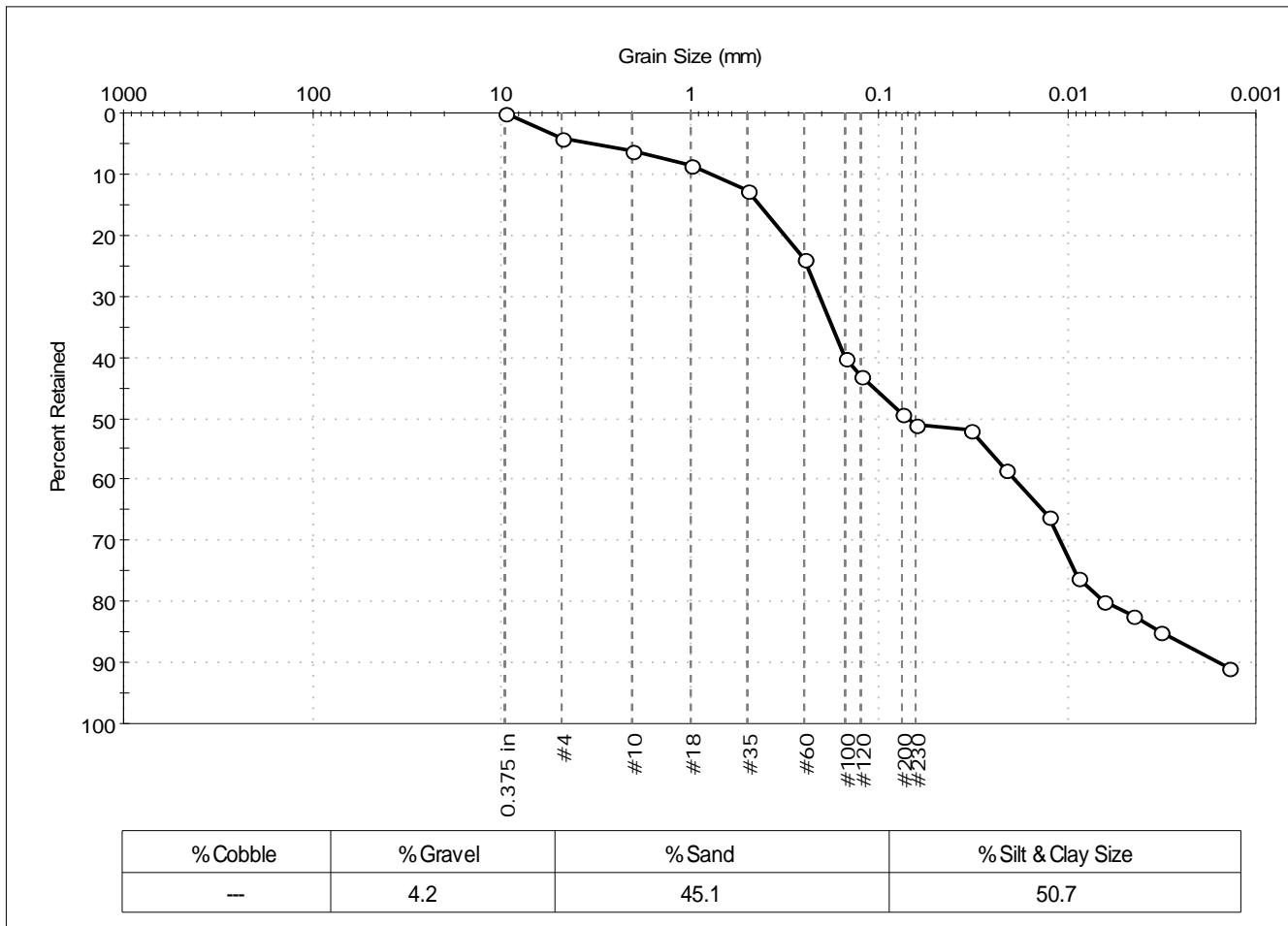
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client:	Battelle Memorial Institute		
Project:	New Bedford Harbor		
Location:	New Bedford, MA	Project No:	GTX-302366
Boring ID:	204-14LTM	Sample Type:	bag
Sample ID:	NBH14-0327	Test Date:	11/18/14
Depth:	---	Test Id:	310541
Test Comment:	---		
Sample Description:	Wet, dark olive gray sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	4		
#10	2.00	6		
#18	1.00	9		
#35	0.50	13		
#60	0.25	24		
#100	0.15	40		
#120	0.12	43		
#200	0.075	49		
#230	0.063	51		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0326	52		
---	0.0210	58		
---	0.0124	66		
---	0.0088	76		
---	0.0064	80		
---	0.0045	82		
---	0.0032	85		
---	0.0014	91		

<u>Coefficients</u>	
D ₈₅ = 0.4314 mm	D ₃₀ = 0.0108 mm
D ₆₀ = 0.1502 mm	D ₁₅ = 0.0032 mm
D ₅₀ = 0.0699 mm	D ₁₀ = 0.0016 mm
C _u = 93.875	C _c = 0.485

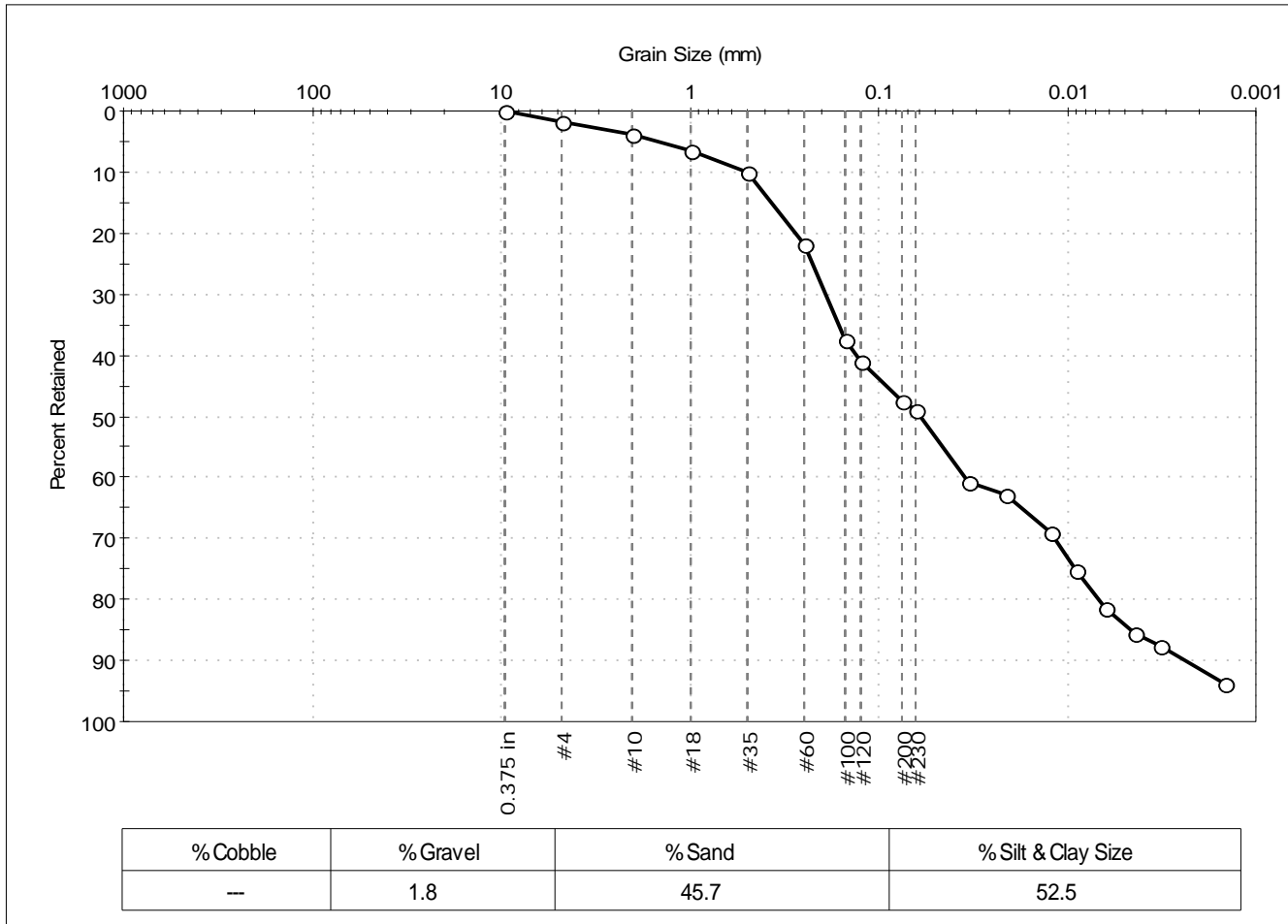
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute
 Project: New Bedford Harbor
 Location: New Bedford, MA
 Project No: GTX-302366
 Boring ID: 204-14LTM
 Sample Type: bag
 Tested By: jbr
 Sample ID: NBH14-0328
 Test Date: 11/18/14
 Checked By: jdt
 Depth: ---
 Test Id: 310546
 Test Comment: ---
 Sample Description: Wet, dark olive gray sandy silt
 Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
0.375 in	9.50	0		
#4	4.75	2		
#10	2.00	4		
#18	1.00	6		
#35	0.50	10		
#60	0.25	22		
#100	0.15	38		
#120	0.12	41		
#200	0.075	48		
#230	0.063	49		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0333	61		
---	0.0210	63		
---	0.0123	69		
---	0.0090	75		
---	0.0063	81		
---	0.0044	86		
---	0.0032	88		
---	0.0015	94		

<u>Coefficients</u>	
D ₈₅ = 0.3714 mm	D ₃₀ = 0.0116 mm
D ₆₀ = 0.1311 mm	D ₁₅ = 0.0046 mm
D ₅₀ = 0.0599 mm	D ₁₀ = 0.0024 mm
C _u = 54.625	C _c = 0.428

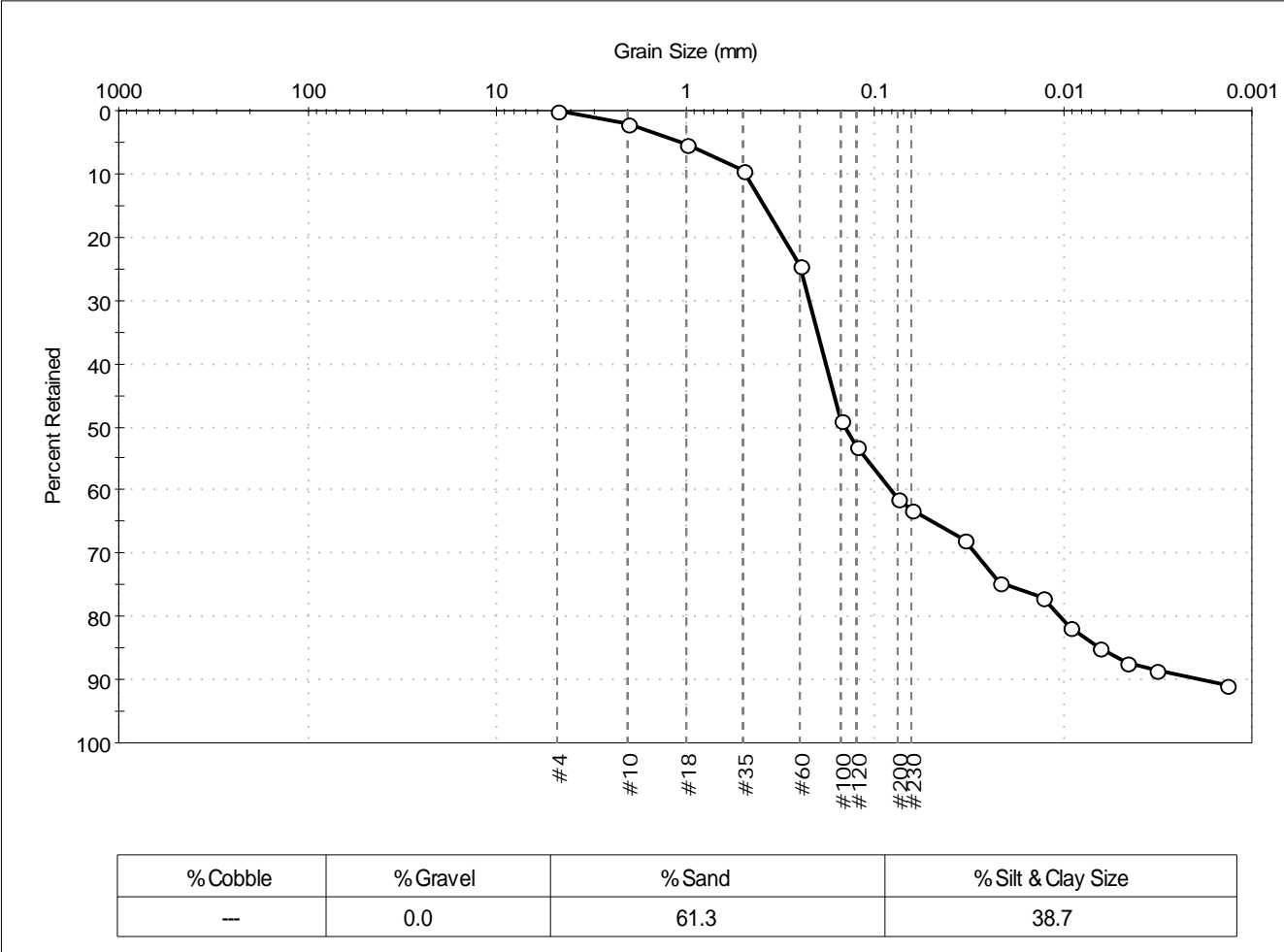
<u>Classification</u>	
ASTM	N/A
AASHTO Silty Soils (A-4 (0))	

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Specific Gravity : 2.65
Separation of Sample: #230 Sieve



Client: Battelle Memorial Institute	Project: New Bedford Harbor	Location: New Bedford, MA	Project No: GTX-302366
Boring ID: 204-14LTM	Sample Type: bag	Tested By: jbr	Checked By: jdt
Sample ID: NBH14-0329	Test Date: 10/27/14	Test Id: 310547	
Depth: ---	Test Comment: ---	Sample Description: Wet, very dark gray silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Pct Retained	Spec. Percent	Complies
#4	4.75	0		
#10	2.00	2		
#18	1.00	5		
#35	0.50	10		
#60	0.25	25		
#100	0.15	49		
#120	0.12	53		
#200	0.075	61		
#230	0.063	63		
---	Particle Size (mm)	Pct Retained	Spec. Percent	Complies
---	0.0336	68		
---	0.0218	75		
---	0.0127	77		
---	0.0091	82		
---	0.0065	85		
---	0.0046	87		
---	0.0033	89		
---	0.0014	91		

<u>Coefficients</u>	
D ₈₅ = 0.3886 mm	D ₃₀ = 0.0294 mm
D ₆₀ = 0.1806 mm	D ₁₅ = 0.0065 mm
D ₅₀ = 0.1429 mm	D ₁₀ = 0.0019 mm
C _u = 95.053	C _c = 2.519

<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ---	
Sand/Gravel Hardness : ---	
Dispersion Device : Apparatus A - Mech Mixer	
Dispersion Period : 1 minute	
Specific Gravity : 2.65	
Separation of Sample: #230 Sieve	

Appendix D
Total Organic Carbon Laboratory Data Report



ANALYTICAL REPORT

Lab Number:	L1422692
Client:	Geo Testing Express 125 Nagog Park Acton, MA 01720
ATTN:	Joe Tomei
Phone:	(978) 893-1241
Project Name:	NEW BEDFORD HARBOR LTM VI
Project Number:	03VYEHGHI
Report Date:	10/16/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: ÖVÝĚĚĜĤ Î

Report Date: 10/16/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1422692-01	NBH14-0001	SEDIMENT	NEW BEDFORD, MA	09/22/14 15:24	09/26/14
L1422692-02	NBH14-0005	SEDIMENT	NEW BEDFORD, MA	09/22/14 14:24	09/26/14
L1422692-03	NBH14-0009	SEDIMENT	NEW BEDFORD, MA	09/22/14 11:16	09/26/14
L1422692-04	NBH14-0013	SEDIMENT	NEW BEDFORD, MA	09/22/14 12:08	09/26/14
L1422692-05	NBH14-0017	SEDIMENT	NEW BEDFORD, MA	09/22/14 08:13	09/26/14
L1422692-06	NBH14-0021	SEDIMENT	NEW BEDFORD, MA	09/22/14 11:38	09/26/14
L1422692-07	NBH14-0025	SEDIMENT	NEW BEDFORD, MA	09/22/14 09:37	09/26/14
L1422692-08	NBH14-0029	SEDIMENT	NEW BEDFORD, MA	09/22/14 10:40	09/26/14
L1422692-09	NBH14-0033	SEDIMENT	NEW BEDFORD, MA	09/22/14 15:25	09/26/14
L1422692-10	NBH14-0037	SEDIMENT	NEW BEDFORD, MA	09/22/14 14:03	09/26/14
L1422692-11	NBH14-0041	SEDIMENT	NEW BEDFORD, MA	09/22/14 13:06	09/26/14
L1422692-12	NBH14-0045	SEDIMENT	NEW BEDFORD, MA	09/23/14 15:43	09/26/14
L1422692-13	NBH14-0049	SEDIMENT	NEW BEDFORD, MA	09/23/14 14:57	09/26/14
L1422692-14	NBH14-0053	SEDIMENT	NEW BEDFORD, MA	09/23/14 13:53	09/26/14
L1422692-15	NBH14-0061	SEDIMENT	NEW BEDFORD, MA	09/23/14 10:12	09/26/14
L1422692-16	NBH14-0065	SEDIMENT	NEW BEDFORD, MA	09/23/14 09:09	09/26/14
L1422692-17	NBH14-0073	SEDIMENT	NEW BEDFORD, MA	09/23/14 14:27	09/26/14
L1422692-18	NBH14-0077	SEDIMENT	NEW BEDFORD, MA	09/23/14 13:39	09/26/14
L1422692-19	NBH14-0081	SEDIMENT	NEW BEDFORD, MA	09/23/14 12:26	09/26/14
L1422692-20	NBH14-0085	SEDIMENT	NEW BEDFORD, MA	09/23/14 11:29	09/26/14
L1422692-21	NBH14-0089	SEDIMENT	NEW BEDFORD, MA	09/23/14 10:32	09/26/14
L1422692-22	NBH14-0093	SEDIMENT	NEW BEDFORD, MA	09/23/14 09:53	09/26/14
L1422692-23	NBH14-0097	SEDIMENT	NEW BEDFORD, MA	09/23/14 08:57	09/26/14

D-2

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 03VYEHGH1

Lab Number: L1422692
Report Date: 10/16/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: ÖVÝĚĚGHÎ Î

Lab Number: L1422692
Report Date: 10/16/14

Case Narrative (continued)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Elizabeth Porta

Title: Technical Director/Representative

Date: 10/16/14

INORGANICS & MISCELLANEOUS

Project Name: NEW BEDFORD HARBOR LTM VI**Lab Number:** L1422692**Project Number:** 0VYEHGHI**Report Date:** 10/16/14**SAMPLE RESULTS**

Lab ID: L1422692-01
Client ID: NBH14-0001
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 15:24
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	8.09		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	8.66		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: 0VYEHGH I

Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-02
 Client ID: NBH14-0005
 Sample Location: NEW BEDFORD, MA
 Matrix: Sediment

Date Collected: 09/22/14 14:24
 Date Received: 09/26/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.08		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	6.01		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 05VYEHGH1

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-03
Client ID: NBH14-0009
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 11:16
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.16		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	4.80		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: 03Y1E6H1

Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-04
 Client ID: NBH14-0013
 Sample Location: NEW BEDFORD, MA
 Matrix: Sediment

Date Collected: 09/22/14 12:08
 Date Received: 09/26/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.26		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	6.14		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0VYEHGHI

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-05
Client ID: NBH14-0017
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 08:13
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.74		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	4.05		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 03Y1E6H1

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-06
Client ID: NBH14-0021
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 11:38
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.391		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	0.356		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0VYEHGHI

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-07
Client ID: NBH14-0025
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 09:37
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.953		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	0.806		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0VYEHGHI

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-08
Client ID: NBH14-0029
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 10:40
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.36		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	2.32		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: 0301140001

Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-09
 Client ID: NBH14-0033
 Sample Location: NEW BEDFORD, MA
 Matrix: Sediment

Date Collected: 09/22/14 15:25
 Date Received: 09/26/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.44		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	3.54		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0301140001

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-10
Client ID: NBH14-0037
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 14:03
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.03		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	4.07		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI**Lab Number:** L1422692**Project Number:** 0VYEHGHI**Report Date:** 10/16/14**SAMPLE RESULTS**

Lab ID: L1422692-11
Client ID: NBH14-0041
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/22/14 13:06
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.52		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	1.26		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0VYEHGHI

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-12
Client ID: NBH14-0045
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 15:43
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.82		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	4.29		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: 0VYEHGHI

Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-13
 Client ID: NBH14-0049
 Sample Location: NEW BEDFORD, MA
 Matrix: Sediment

Date Collected: 09/23/14 14:57
 Date Received: 09/26/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.95		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	5.03		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0VYEHGHI

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-14
Client ID: NBH14-0053
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 13:53
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.984		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	1.09		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: 0VYEHGHI

Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-15
 Client ID: NBH14-0061
 Sample Location: NEW BEDFORD, MA
 Matrix: Sediment

Date Collected: 09/23/14 10:12
 Date Received: 09/26/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.09		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	1.03		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0VYEHGHI

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-16
Client ID: NBH14-0065
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 09:09
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.299		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	0.285		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: 0VYEHGH I

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-17
Client ID: NBH14-0073
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 14:27
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.08		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	1.08		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-18
Client ID: NBH14-0077
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 13:39
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.34		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	1.34		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-19
Client ID: NBH14-0081
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 12:26
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.223		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	0.202		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-20
Client ID: NBH14-0085
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 11:29
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.40		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	1.46		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-21
Client ID: NBH14-0089
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 10:32
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.774		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	0.713		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-22
Client ID: NBH14-0093
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 09:53
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.63		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	3.35		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

SAMPLE RESULTS

Lab ID: L1422692-23
Client ID: NBH14-0097
Sample Location: NEW BEDFORD, MA
Matrix: Sediment

Date Collected: 09/23/14 08:57
Date Received: 09/26/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.47		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	1.59		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: GTX-302366

Report Date: 10/16/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab for sample(s): 17-23 Batch: WG731306-1										
Total Organic Carbon (Rep1)	ND		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon (Rep2)	ND		%	0.010	--	1	-	10/13/14 16:20	1,9060	LC
Total Organic Carbon - Mansfield Lab for sample(s): 09-16 Batch: WG731309-1										
Total Organic Carbon (Rep1)	ND		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon (Rep2)	ND		%	0.010	--	1	-	10/10/14 20:08	1,9060	LC
Total Organic Carbon - Mansfield Lab for sample(s): 01-08 Batch: WG731314-1										
Total Organic Carbon (Rep1)	ND		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC
Total Organic Carbon (Rep2)	ND		%	0.010	--	1	-	10/09/14 18:37	1,9060	LC

Matrix Spike Analysis Batch Quality Control

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 17-23 QC Batch ID: WG731306-4 QC Sample: L1422692-18 Client ID: NBH14-0077												
Total Organic Carbon (Rep1)	1.34	1.64	3.07	105	-	-	-	-	75-125	-	-	25
Total Organic Carbon (Rep2)	1.34	1.34	2.68	100	-	-	-	-	75-125	-	-	25
Total Organic Carbon - Mansfield Lab Associated sample(s): 09-16 QC Batch ID: WG731309-4 QC Sample: L1422692-09 Client ID: NBH14-0033												
Total Organic Carbon (Rep1)	3.44	1.96	5.51	106	-	-	-	-	75-125	-	-	25
Total Organic Carbon (Rep2)	3.54	2.25	5.81	101	-	-	-	-	75-125	-	-	25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG731314-4 QC Sample: L1422692-01 Client ID: NBH14-0001												
Total Organic Carbon (Rep1)	8.09	1.08	9.14	97	-	-	-	-	75-125	-	-	25
Total Organic Carbon (Rep2)	8.66	1.07	9.57	85	-	-	-	-	75-125	-	-	25

Lab Duplicate Analysis

Batch Quality Control

Project Name: NEW BEDFORD HARBOR LTM VI

Project Number: GTX-302366

Lab Number: L1422692

Report Date: 10/16/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 17-23 QC Batch ID: WG731306-3 QC Sample: L1422692-18 Client ID: NBH14-0077						
Total Organic Carbon (Rep1)	1.34	1.35	%	1		25
Total Organic Carbon (Rep2)	1.34	1.23	%	9		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 09-16 QC Batch ID: WG731309-3 QC Sample: L1422692-09 Client ID: NBH14-0033						
Total Organic Carbon (Rep1)	3.44	3.53	%	3		25
Total Organic Carbon (Rep2)	3.54	3.53	%	0		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG731314-3 QC Sample: L1422692-01 Client ID: NBH14-0001						
Total Organic Carbon (Rep1)	8.09	8.04	%	1		25
Total Organic Carbon (Rep2)	8.66	8.22	%	5		25

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG731306-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	106		75-125
Total Organic Carbon (Rep2)	119		75-125

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG731309-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	105		75-125
Total Organic Carbon (Rep2)	100		75-125

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG731314-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	86		75-125
Total Organic Carbon (Rep2)	100		75-125

Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1422692

Project Number: GTX-302366

Report Date: 10/16/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1422692-01A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-02A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-03A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-04A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-05A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-06A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-07A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-08A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-09A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-10A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-11A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-12A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-13A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-14A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-15A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-16A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-17A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-18A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-19A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-20A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-21A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-22A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1422692-23A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

GLOSSARY

Acronyms

EDL	-Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	-Environmental Protection Agency.
LCS	-Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	-Laboratory Control Sample Duplicate: Refer to LCS.
LFB	-Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	-Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	-Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	-Matrix Spike Sample Duplicate: Refer to MS.
NA	-Not Applicable.
NC	-Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	-Not Ignitable.
RL	-Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	-Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	-Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a "Total" result is defined as the summation of results for individual isomers or Aroclors. If a "Total" result is requested, the results of its individual components will also be reported. This is applicable to "Total" results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

Data Qualifiers

- G** -The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** -The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** -The lower value for the two columns has been reported due to obvious interference.
- M** -Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** -Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** -The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** -The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** -Analytical results are from sample re-analysis.
- RE** -Analytical results are from sample re-extraction.
- S** -Analytical results are from modified screening analysis.
- J** -Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** -Not detected at the reporting limit (RL) for the sample.

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1422692
Report Date: 10/16/14

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC,

SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4,**

SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Battelle
The Business of Innovation
Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD &MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	16:24	NBH14-0001		SED	120-14LTM			1	X				
9/22/2014	14:24	NBH14-0005		SED	125-14LTM			1	X				
9/22/2014	11:16	NBH14-0009		SED	130-14LTM			1	X				
9/22/2014	12:08	NBH14-0013		SED	134-14LTM			1	X				
9/22/2014	8:13	NBH14-0017		SED	150-14LTM			1	X				
9/22/2014	11:38	NBH14-0021		SED	253-14LTM			1	X				
9/22/2014	9:37	NBH14-0025		SED	216-14LTM			1	X				
9/22/2014	10:40	NBH14-0029		SED	220-14LTM			1	X				
9/22/2014	15:25	NBH14-0033		SED	235-14LTM			1	X				
9/22/2014	14:03	NBH14-0037		SED	240-14LTM			1	X				
9/22/2014	13:06	NBH14-0041		SED	245-14LTM			1	X				
9/23/2014	15:43	NBH14-0045		SED	146-14LTM			1	X				
9/23/2014	14:57	NBH14-0049		SED	140-14LTM			1	X				
9/23/2014	13:53	NBH14-0053		SED	202-14LTM			1	X				
9/23/2014	10:12	NBH14-0061		SED	147-14LTM			1	X				
9/23/2014	9:09	NBH14-0065		SED	135-14LTM			1	X				
9/23/2014	14:27	NBH14-0073		SED	333-14LTM			1	X				
9/23/2014	13:39	NBH14-0077		SED	339-14LTM			1	X				
9/23/2014	12:26	NBH14-0081		SED	346-14LTM			1	X				
9/23/2014	11:29	NBH14-0085		SED	340-14LTM			1	X				

Relinquished By (name/date/time):

Received By (name/date/time):

Jessica Tenzar 9/25/14 1500

rel *John* 9/21/14 0100 *monahel lab* 9/21/14 0400

Ken [Signature] 9/26/14 10:10

Battelle
The Business of Innovation
Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	Station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	10:32	NBH14-0089		SED	341-14LTM			1	X				
9/23/2014	9:53	NBH14-0093		SED	334-14LTM			1	X				
9/23/2014	8:57	NBH14-0097		SED	335-14LTM			1	X				

Relinquished By (name/date/time):

Jessica Tenzar 9/25/14 1500 with 9/27/14 0400 ^{2 of 2} D-41 ^{D-41} *manned lab* 9/27/14 0400

Received By (name/date/time):

Kim Clark APL 9/28/14 10:10



ANALYTICAL REPORT

Lab Number:	L1423076
Client:	Geo Testing Express 125 Nagog Park Acton, MA 01720
ATTN:	Joe Tomei
Phone:	(978) 893-1241
Project Name:	NEW BEDFORD HARBOR LTM VI
Project Number:	GTX-302366
Report Date:	10/22/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1423076-01	NBH14-0101	SOIL	NEW BEDFORD, MA	09/24/14 10:17	09/30/14
L1423076-02	NBH14-0105	SOIL	NEW BEDFORD, MA	09/24/14 09:18	09/30/14
L1423076-03	NBH14-0109	SOIL	NEW BEDFORD, MA	09/24/14 10:56	09/30/14
L1423076-04	NBH14-0113	SOIL	NEW BEDFORD, MA	09/24/14 12:10	09/30/14
L1423076-05	NBH14-0117	SOIL	NEW BEDFORD, MA	09/24/14 13:15	09/30/14
L1423076-06	NBH14-0121	SOIL	NEW BEDFORD, MA	09/24/14 14:24	09/30/14
L1423076-07	NBH14-0125	SOIL	NEW BEDFORD, MA	09/25/14 08:15	09/30/14
L1423076-08	NBH14-0129	SOIL	NEW BEDFORD, MA	09/25/14 09:49	09/30/14
L1423076-09	NBH14-0133	SOIL	NEW BEDFORD, MA	09/25/14 11:00	09/30/14
L1423076-10	NBH14-0137	SOIL	NEW BEDFORD, MA	09/25/14 11:32	09/30/14
L1423076-11	NBH14-0141	SOIL	NEW BEDFORD, MA	09/25/14 12:58	09/30/14
L1423076-12	NBH14-0145	SOIL	NEW BEDFORD, MA	09/25/14 14:03	09/30/14
L1423076-13	NBH14-0149	SOIL	NEW BEDFORD, MA	09/25/14 14:56	09/30/14
L1423076-14	NBH14-0153	SOIL	NEW BEDFORD, MA	09/25/14 08:19	09/30/14
L1423076-15	NBH14-0157	SOIL	NEW BEDFORD, MA	09/25/14 09:06	09/30/14
L1423076-16	NBH14-0161	SOIL	NEW BEDFORD, MA	09/25/14 09:55	09/30/14
L1423076-17	NBH14-0165	SOIL	NEW BEDFORD, MA	09/25/14 12:58	09/30/14
L1423076-18	NBH14-0169	SOIL	NEW BEDFORD, MA	09/25/14 14:11	09/30/14
L1423076-19	NBH14-0173	SOIL	NEW BEDFORD, MA	09/25/14 15:14	09/30/14

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

Case Narrative (continued)

Total Organic Carbon

The L1423076-02 Sample Replicate RPD for Total Organic Carbon is outside the acceptance criteria of 30%. A double-burn re-analysis was performed with confirming results. The result is reported from the initial analysis only. The elevated RPD has been attributed to the non-homogeneous nature of the sample.

The L1423076-13 Sample Replicate RPD for Total Organic Carbon is outside the acceptance criteria of 30%. A double-burn re-analysis was performed with confirming results. The result is reported from the initial analysis only. The elevated RPD has been attributed to the non-homogeneous nature of the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Elizabeth Porta

Title: Technical Director/Representative

Date: 10/22/14

INORGANICS & MISCELLANEOUS

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-01
Client ID: NBH14-0101
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/24/14 10:17
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.417		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	0.402		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-02
Client ID: NBH14-0105
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/24/14 09:18
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.14		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	1.60		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-03
Client ID: NBH14-0109
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/24/14 10:56
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.51		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	1.57		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-04
Client ID: NBH14-0113
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/24/14 12:10
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.140		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	0.157		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-05
Client ID: NBH14-0117
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/24/14 13:15
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.469		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	0.353		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-06
Client ID: NBH14-0121
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/24/14 14:24
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.076		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	0.073		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-07
Client ID: NBH14-0125
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 08:15
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.12		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	3.71		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-08
Client ID: NBH14-0129
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 09:49
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.05		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	1.88		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-09
Client ID: NBH14-0133
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 11:00
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.07		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	3.02		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-10
Client ID: NBH14-0137
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 11:32
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.06		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	2.94		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-11
Client ID: NBH14-0141
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 12:58
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.06		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	1.95		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-12
Client ID: NBH14-0145
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 14:03
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.47		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	1.51		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-13
Client ID: NBH14-0149
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 14:56
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.54		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	3.07		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-14
Client ID: NBH14-0153
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 08:19
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.40		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	6.38		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-15
Client ID: NBH14-0157
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 09:06
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	7.68		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	7.77		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-16
Client ID: NBH14-0161
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 09:55
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	7.66		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	7.79		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-17
Client ID: NBH14-0165
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 12:58
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.221		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	0.294		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-18
Client ID: NBH14-0169
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 14:11
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.76		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	4.51		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

SAMPLE RESULTS

Lab ID: L1423076-19
Client ID: NBH14-0173
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 15:14
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.06		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	4.75		%	0.010	--	1	-	10/20/14 18:26	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI

Lab Number: L1423076

Project Number: GTX-302366

Report Date: 10/22/14

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab for sample(s): 01-19 Batch: WG733403-1									
Total Organic Carbon (Rep1)	ND	%	0.010	--	1	-	10/20/14 18:26	1,9060	CM
Total Organic Carbon (Rep2)	ND	%	0.010	--	1	-	10/20/14 18:26	1,9060	CM

Matrix Spike Analysis Batch Quality Control

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-19 QC Batch ID: WG733403-4 QC Sample: L1423076-01 Client ID: NBH14-0101												
Total Organic Carbon (Rep1)	0.417	1.32	1.73	99	-	-	-	-	75-125	-	-	25
Total Organic Carbon (Rep2)	0.402	1.02	1.40	98	-	-	-	-	75-125	-	-	25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-19 QC Batch ID: WG733403-6 QC Sample: L1423076-10 Client ID: NBH14-0137												
Total Organic Carbon (Rep1)	3.06	0.55	3.48	76	-	-	-	-	75-125	-	-	25
Total Organic Carbon (Rep2)	2.94	1.02	4.05	108	-	-	-	-	75-125	-	-	25

Lab Duplicate Analysis

Batch Quality Control

Project Name: NEW BEDFORD HARBOR LTM VI

Project Number: GTX-302366

Lab Number: L1423076

Report Date: 10/22/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-19 QC Batch ID: WG733403-3 QC Sample: L1423076-01 Client ID: NBH14-0101						
Total Organic Carbon (Rep1)	0.417	0.395	%	5		25
Total Organic Carbon (Rep2)	0.402	0.379	%	6		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-19 QC Batch ID: WG733403-5 QC Sample: L1423076-10 Client ID: NBH14-0137						
Total Organic Carbon (Rep1)	3.06	3.12	%	2		25
Total Organic Carbon (Rep2)	2.94	2.90	%	1		25

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG733403-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	116		75-125
Total Organic Carbon (Rep2)	102		75-125

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1423076-01A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-02A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-03A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-04A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-05A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-06A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-07A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-08A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-09A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-10A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-11A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-12A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-13A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-14A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-15A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-16A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-17A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-18A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)
L1423076-19A	Glass 120ml unpreserved	A	N/A	3.6	Y	Absent	A2-TOC-9060-2REPS(28)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a "Total" result is defined as the summation of results for individual isomers or Aroclors. If a "Total" result is requested, the results of its individual components will also be reported. This is applicable to "Total" results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

Data Qualifiers

- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423076
Report Date: 10/22/14

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**


EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

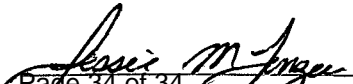
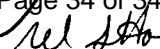
 <h2 style="margin: 0;">Chain of Custody</h2> <p style="font-size: small;">The Business of Innovation</p>	Project Manager: Jessica Tenzar Phone: (781) 681-5532
--	--

Ship to: Mary Davis (508)439-5171 Alpha Analytical, Inc. 8 Walkup Drive Westborough, MA 01581	Samplers Signature: PSD & MRF	Site Contact: Matt Fitzpatrick Mobile: (781)733-6797
---	-------------------------------	---

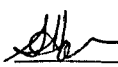
Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101	01	SED	349-14LTM			1	X				
9/24/2014	9:18	NBH14-0105	02	SED	352-14LTM			1	X				
9/24/2014	10:56	NBH14-0109	03	SED	345-14LTM			1	X				
9/24/2014	12:10	NBH14-0113	04	SED	318-14LTM			1	X				
9/24/2014	13:15	NBH14-0117	05	SED	311-14LTM			1	X				
9/24/2014	14:24	NBH14-0121	06	SED	306-14LTM			1	X				
9/25/2014	8:15	NBH14-0125	07	SED	221-14LTM			1	X				
9/25/2014	9:49	NBH14-0129	08	SED	249-14LTM			1	X				
9/25/2014	11:00	NBH14-0133	09	SED	317-14LTM			1	X				
9/25/2014	11:32	NBH14-0137	10	SED	309-14LTM			1	X				
9/25/2014	12:58	NBH14-0141	11	SED	310-14LTM			1	X				
9/25/2014	14:03	NBH14-0145	12	SED	304-14LTM			1	X				
9/25/2014	14:56	NBH14-0149	13	SED	250-14LTM			1	X				
9/25/2014	8:19	NBH14-0153	14	SED	105-14LTM			1	X				
9/25/2014	9:06	NBH14-0157	15	SED	109-14LTM			1	X				
9/25/2014	9:55	NBH14-0161	16	SED	115-14LTM			1	X				
9/25/2014	12:58	NBH14-0165	17	SED	154-14LTM			1	X				
9/25/2014	14:11	NBH14-0169	18	SED	139-14LTM			1	X				
9/25/2014	15:14	NBH14-0173	19	SED	131-14LTM			1	X				

Relinquished By (name/date/time):

Received By (name/date/time):

 9/29/14 15:30
 Page 34 of 34
 Rel  10/11/14 0400 rec'd manure lab 10/11/14 0400

1 of 5

 9/29/14 15:30



ANALYTICAL REPORT

Lab Number:	L1423331
Client:	Geo Testing Express 125 Nagog Park Acton, MA 01720
ATTN:	Joe Tomei
Phone:	(978) 893-1241
Project Name:	NEW BEDFORD HARBOR LTM VI
Project Number:	GTX-302366
Report Date:	10/23/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1423331-01	NBH14-0057	SOIL	NEW BEDFORD, MA	09/30/14 10:09	10/02/14
L1423331-02	NBH14-0069	SOIL	NEW BEDFORD, MA	09/30/14 10:25	10/02/14
L1423331-03	NBH14-0177	SOIL	NEW BEDFORD, MA	09/26/14 07:39	10/02/14
L1423331-04	NBH14-0181	SOIL	NEW BEDFORD, MA	09/26/14 08:36	10/02/14
L1423331-05	NBH14-0185	SOIL	NEW BEDFORD, MA	09/26/14 09:50	10/02/14
L1423331-06	NBH14-0189	SOIL	NEW BEDFORD, MA	09/26/14 11:00	10/02/14
L1423331-07	NBH14-0193	SOIL	NEW BEDFORD, MA	09/26/14 12:49	10/02/14
L1423331-08	NBH14-0197	SOIL	NEW BEDFORD, MA	09/26/14 13:38	10/02/14
L1423331-09	NBH14-0199	SOIL	NEW BEDFORD, MA	09/26/14 14:24	10/02/14
L1423331-10	NBH14-0203	SOIL	NEW BEDFORD, MA	09/26/14 15:17	10/02/14
L1423331-11	NBH14-0207	SOIL	NEW BEDFORD, MA	09/26/14 14:32	10/02/14
L1423331-12	NBH14-0211	SOIL	NEW BEDFORD, MA	09/26/14 13:36	10/02/14
L1423331-13	NBH14-0215	SOIL	NEW BEDFORD, MA	09/26/14 08:21	10/02/14
L1423331-14	NBH14-0219	SOIL	NEW BEDFORD, MA	09/26/14 08:50	10/02/14
L1423331-15	NBH14-0220	SOIL	NEW BEDFORD, MA	09/26/14 09:24	10/02/14
L1423331-16	NBH14-0224	SOIL	NEW BEDFORD, MA	09/26/14 10:54	10/02/14
L1423331-17	NBH14-0228	SOIL	NEW BEDFORD, MA	09/26/14 11:50	10/02/14
L1423331-18	NBH14-0232	SOIL	NEW BEDFORD, MA	09/25/14 14:16	10/02/14
L1423331-19	NBH14-0233	SOIL	NEW BEDFORD, MA	09/26/14 08:56	10/02/14
L1423331-20	NBH14-0234	SOIL	NEW BEDFORD, MA	09/24/14 14:40	10/02/14
L1423331-21	NBH14-0237	SOIL	NEW BEDFORD, MA	09/29/14 15:14	10/02/14
L1423331-22	NBH14-0241	SOIL	NEW BEDFORD, MA	09/29/14 15:54	10/02/14
L1423331-23	NBH14-0245	SOIL	NEW BEDFORD, MA	09/29/14 08:06	10/02/14
L1423331-24	NBH14-0249	SOIL	NEW BEDFORD, MA	09/29/14 09:06	10/02/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1423331-25	NBH14-0253	SOIL	NEW BEDFORD, MA	09/29/14 10:01	10/02/14
L1423331-26	NBH14-0257	SOIL	NEW BEDFORD, MA	09/29/14 12:47	10/02/14
L1423331-27	NBH14-0261	SOIL	NEW BEDFORD, MA	09/29/14 14:39	10/02/14
L1423331-28	NBH14-0265	SOIL	NEW BEDFORD, MA	09/29/14 15:26	10/02/14
L1423331-29	NBH14-0269	SOIL	NEW BEDFORD, MA	09/29/14 08:13	10/02/14
L1423331-30	NBH14-0273	SOIL	NEW BEDFORD, MA	09/29/14 09:08	10/02/14
L1423331-31	NBH14-0277	SOIL	NEW BEDFORD, MA	09/29/14 09:52	10/02/14
L1423331-32	NBH14-0281	SOIL	NEW BEDFORD, MA	09/29/14 10:45	10/02/14
L1423331-33	NBH14-0285	SOIL	NEW BEDFORD, MA	09/29/14 11:15	10/02/14
L1423331-34	NBH14-0289	SOIL	NEW BEDFORD, MA	09/29/14 12:27	10/02/14
L1423331-35	NBH14-0302	SOIL	NEW BEDFORD, MA	09/30/14 08:00	10/02/14
L1423331-36	NBH14-0306	SOIL	NEW BEDFORD, MA	09/30/14 09:02	10/02/14
L1423331-37	NBH14-0310	SOIL	NEW BEDFORD, MA	09/30/14 09:59	10/02/14
L1423331-38	NBH14-0314	SOIL	NEW BEDFORD, MA	09/30/14 11:47	10/02/14
L1423331-39	NBH14-0318	SOIL	NEW BEDFORD, MA	09/30/14 12:41	10/02/14
L1423331-40	NBH14-0322	SOIL	NEW BEDFORD, MA	09/30/14 13:44	10/02/14
L1423331-41	NBH14-0326	SOIL	NEW BEDFORD, MA	09/30/14 14:36	10/02/14

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Case Narrative (continued)

Total Organic Carbon

The WG733445-6 MS recoveries, performed on L1423331-21, are outside the 75-125% acceptance criteria for Total Organic Carbon (Rep1 - 64%), possibly due to sample matrix. The associated SRM recoveries are within criteria indicating the sample batch was in control, and all sample results were accepted.

The WG733478-4 MS recoveries, performed on L1423331-03, are outside the 75-125% acceptance criteria for Total Organic Carbon (Rep1 - 137%) and Total Organic Carbon (Rep2 - 73%), possibly due to sample matrix. The associated SRM recoveries are within criteria indicating the sample batch was in control, and all sample results were accepted.

The WG733721-3 MS recoveries, performed on L1423331-33, are outside the 75-125% acceptance criteria for Total Organic Carbon (Rep2 - 136%), possibly due to sample matrix. The associated SRM recoveries are within criteria indicating the sample batch was in control, and all sample results were accepted.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Elizabeth Porta

Title: Technical Director/Representative

Date: 10/23/14

INORGANICS & MISCELLANEOUS

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-01
Client ID: NBH14-0057
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 10:09
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.08		%	0.010	--	1	-	10/21/14 19:31	1,9060	CM
Total Organic Carbon (Rep2)	1.12		%	0.010	--	1	-	10/21/14 19:31	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-02
Client ID: NBH14-0069
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 10:25
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.736		%	0.010	--	1	-	10/21/14 23:45	1,9060	CM
Total Organic Carbon (Rep2)	0.713		%	0.010	--	1	-	10/21/14 23:45	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-03
Client ID: NBH14-0177
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 07:39
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.08		%	0.010	--	1	-	10/21/14 19:53	1,9060	CM
Total Organic Carbon (Rep2)	3.76		%	0.010	--	1	-	10/21/14 19:53	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-04
Client ID: NBH14-0181
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 08:36
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.54		%	0.010	--	1	-	10/22/14 09:35	1,9060	CM
Total Organic Carbon (Rep2)	1.68		%	0.010	--	1	-	10/22/14 09:35	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-05
Client ID: NBH14-0185
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 09:50
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.66		%	0.010	--	1	-	10/22/14 09:45	1,9060	CM
Total Organic Carbon (Rep2)	1.43		%	0.010	--	1	-	10/22/14 09:45	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-06
Client ID: NBH14-0189
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 11:00
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.58		%	0.010	--	1	-	10/22/14 09:56	1,9060	CM
Total Organic Carbon (Rep2)	1.66		%	0.010	--	1	-	10/22/14 09:56	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-07
Client ID: NBH14-0193
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 12:49
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.41		%	0.010	--	1	-	10/22/14 10:02	1,9060	CM
Total Organic Carbon (Rep2)	5.60		%	0.010	--	1	-	10/22/14 10:02	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-08
Client ID: NBH14-0197
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 13:38
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.90		%	0.010	--	1	-	10/22/14 10:13	1,9060	CM
Total Organic Carbon (Rep2)	4.09		%	0.010	--	1	-	10/22/14 10:13	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-09
Client ID: NBH14-0199
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 14:24
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.95		%	0.010	--	1	-	10/22/14 10:55	1,9060	CM
Total Organic Carbon (Rep2)	5.47		%	0.010	--	1	-	10/22/14 10:55	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-10
Client ID: NBH14-0203
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 15:17
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.13		%	0.010	--	1	-	10/22/14 11:06	1,9060	CM
Total Organic Carbon (Rep2)	6.46		%	0.010	--	1	-	10/22/14 11:06	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-11
Client ID: NBH14-0207
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 14:32
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	7.01		%	0.010	--	1	-	10/22/14 11:11	1,9060	CM
Total Organic Carbon (Rep2)	6.77		%	0.010	--	1	-	10/22/14 11:11	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-12
Client ID: NBH14-0211
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 13:36
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.42		%	0.010	--	1	-	10/22/14 11:27	1,9060	CM
Total Organic Carbon (Rep2)	5.52		%	0.010	--	1	-	10/22/14 11:27	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-13
Client ID: NBH14-0215
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 08:21
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.72		%	0.010	--	1	-	10/22/14 11:33	1,9060	CM
Total Organic Carbon (Rep2)	5.30		%	0.010	--	1	-	10/22/14 11:33	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-14
Client ID: NBH14-0219
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 08:50
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.98		%	0.010	--	1	-	10/22/14 12:17	1,9060	CM
Total Organic Carbon (Rep2)	3.76		%	0.010	--	1	-	10/22/14 12:17	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-15
Client ID: NBH14-0220
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 09:24
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.04		%	0.010	--	1	-	10/22/14 12:28	1,9060	CM
Total Organic Carbon (Rep2)	6.22		%	0.010	--	1	-	10/22/14 12:28	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-16
Client ID: NBH14-0224
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 10:54
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.622		%	0.010	--	1	-	10/22/14 13:50	1,9060	CM
Total Organic Carbon (Rep2)	0.557		%	0.010	--	1	-	10/22/14 13:50	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-17
Client ID: NBH14-0228
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 11:50
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	8.91		%	0.010	--	1	-	10/22/14 12:50	1,9060	CM
Total Organic Carbon (Rep2)	6.94		%	0.010	--	1	-	10/22/14 12:50	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-18
Client ID: NBH14-0232
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/25/14 14:16
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.37		%	0.010	--	1	-	10/22/14 14:07	1,9060	CM
Total Organic Carbon (Rep2)	5.06		%	0.010	--	1	-	10/22/14 14:07	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-19
Client ID: NBH14-0233
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/26/14 08:56
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.26		%	0.010	--	1	-	10/22/14 13:29	1,9060	CM
Total Organic Carbon (Rep2)	3.32		%	0.010	--	1	-	10/22/14 13:29	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-20
Client ID: NBH14-0234
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/24/14 14:40
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.068		%	0.010	--	1	-	10/22/14 13:39	1,9060	CM
Total Organic Carbon (Rep2)	0.066		%	0.010	--	1	-	10/22/14 13:39	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-21
Client ID: NBH14-0237
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 15:14
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.73		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	4.08		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-22
Client ID: NBH14-0241
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 15:54
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.00		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	4.23		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-23
Client ID: NBH14-0245
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 08:06
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.27		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	6.26		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-24
Client ID: NBH14-0249
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 09:06
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.53		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	5.45		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-25
Client ID: NBH14-0253
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 10:01
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.65		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	5.51		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-26
Client ID: NBH14-0257
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 12:47
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.639		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	0.539		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-27
Client ID: NBH14-0261
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 14:39
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.09		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	0.859		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-28
Client ID: NBH14-0265
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 15:26
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.00		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	1.99		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-29
Client ID: NBH14-0269
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 08:13
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	0.369		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	0.323		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-30
Client ID: NBH14-0273
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 09:08
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.39		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	1.59		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-31
Client ID: NBH14-0277
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 09:52
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.35		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	1.22		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-32
Client ID: NBH14-0281
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 10:45
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.99		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	3.05		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-33
Client ID: NBH14-0285
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 11:15
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.41		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	1.35		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-34
Client ID: NBH14-0289
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/29/14 12:27
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.64		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	1.71		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-35
Client ID: NBH14-0302
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 08:00
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.62		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	2.07		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-36
Client ID: NBH14-0306
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 09:02
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.30		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	4.87		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-37
Client ID: NBH14-0310
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 09:59
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.30		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	2.77		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-38
Client ID: NBH14-0314
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 11:47
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.58		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	4.08		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-39
Client ID: NBH14-0318
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 12:41
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.02		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	2.57		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-40
Client ID: NBH14-0322
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 13:44
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.31		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	1.10		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

SAMPLE RESULTS

Lab ID: L1423331-41
Client ID: NBH14-0326
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 09/30/14 14:36
Date Received: 10/02/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.27		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	2.47		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab for sample(s): 21-32 Batch: WG733445-1										
Total Organic Carbon (Rep1)	ND		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon (Rep2)	ND		%	0.010	--	1	-	10/22/14 10:18	1,9060	CM
Total Organic Carbon - Mansfield Lab for sample(s): 01-20 Batch: WG733478-1										
Total Organic Carbon (Rep1)	ND		%	0.010	--	1	-	10/21/14 18:20	1,9060	CM
Total Organic Carbon (Rep2)	ND		%	0.010	--	1	-	10/21/14 18:20	1,9060	CM
Total Organic Carbon - Mansfield Lab for sample(s): 33-41 Batch: WG733721-1										
Total Organic Carbon (Rep1)	ND		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC
Total Organic Carbon (Rep2)	ND		%	0.010	--	1	-	10/22/14 10:18	1,9060	LC

Matrix Spike Analysis Batch Quality Control

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 21-32 QC Batch ID: WG733445-4 QC Sample: L1424265-01 Client ID: MS Sample												
Total Organic Carbon (Rep1)	0.025	1.12	1.14	99		-	-		75-125	-		25
Total Organic Carbon (Rep2)	0.017	0.834	0.848	100		-	-		75-125	-		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 21-32 QC Batch ID: WG733445-6 QC Sample: L1423331-21 Client ID: NBH14-0237												
Total Organic Carbon (Rep1)	4.73	1.21	5.51	64	Q	-	-		75-125	-		25
Total Organic Carbon (Rep2)	4.08	1.25	5.17	87		-	-		75-125	-		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG733478-4 QC Sample: L1423331-03 Client ID: NBH14-0177												
Total Organic Carbon (Rep1)	3.08	1.67	5.36	137	Q	-	-		75-125	-		25
Total Organic Carbon (Rep2)	3.76	1	4.49	73	Q	-	-		75-125	-		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG733478-5 QC Sample: L1423331-20 Client ID: NBH14-0234												
Total Organic Carbon (Rep1)	0.068	0.818	0.902	102		-	-		75-125	-		25
Total Organic Carbon (Rep2)	0.066	0.821	0.915	103		-	-		75-125	-		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 33-41 QC Batch ID: WG733721-3 QC Sample: L1423331-33 Client ID: NBH14-0285												
Total Organic Carbon (Rep1)	1.41	1.49	3.10	114		-	-		75-125	-		25
Total Organic Carbon (Rep2)	1.35	1.16	2.94	136	Q	-	-		75-125	-		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: NEW BEDFORD HARBOR LTM VI

Project Number: GTX-302366

Lab Number: L1423331

Report Date: 10/23/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 21-32 QC Batch ID: WG733445-3 QC Sample: L1424265-01 Client ID: DUP Sample						
Total Organic Carbon (Rep1)	0.025	0.022	%	13		25
Total Organic Carbon (Rep2)	0.017	0.028	%	49	Q	25
Total Organic Carbon - Mansfield Lab Associated sample(s): 21-32 QC Batch ID: WG733445-5 QC Sample: L1423331-21 Client ID: NBH14-0237						
Total Organic Carbon (Rep1)	4.73	3.70	%	24		25
Total Organic Carbon (Rep2)	4.08	4.38	%	7		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG733478-3 QC Sample: L1423331-03 Client ID: NBH14-0177						
Total Organic Carbon (Rep1)	3.08	3.13	%	2		25
Total Organic Carbon (Rep2)	3.76	3.11	%	19		25

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG733445-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	110		75-125
Total Organic Carbon (Rep2)	112		75-125

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG733478-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	100		75-125
Total Organic Carbon (Rep2)	107		75-125

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG733721-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	84		75-125
Total Organic Carbon (Rep2)	102		75-125

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1423331-01A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-02A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-03A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-04A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-05A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-06A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-07A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-08A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-09A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-10A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-11A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-12A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-13A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-14A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-15A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-16A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-17A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-18A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-19A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-20A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-21A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-22A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-23A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-24A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-25A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-26A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-27A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1423331-28A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-29A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-30A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-31A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-32A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-33A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-34A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-35A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-36A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-37A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-38A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-39A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-40A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)
L1423331-41A	Glass 120ml unpreserved	A	N/A	5.4	Y	Absent	A2-TOC-9060-2REPS(28)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

Data Qualifiers

- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: NEW BEDFORD HARBOR LTM VI
Project Number: GTX-302366

Lab Number: L1423331
Report Date: 10/23/14

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4,**

SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Battelle
The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD & MRF
(Please report data to GeoTesting Express)

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057	01	SED	151-14LTM			1	X				
9/30/2014	10:25	NBH14-0069	02	SED	155-14LTM			1	X				
9/26/2014	7:39	NBH14-0177	03	SED	247-14LTM			1	X				
9/26/2014	8:36	NBH14-0181	04	SED	242-14LTM			1	X				
9/26/2014	9:50	NBH14-0185	05	SED	241-14LTM			1	X				
9/26/2014	11:00	NBH14-0189	06	SED	237-14LTM			1	X				
9/26/2014	12:49	NBH14-0193	07	SED	236-14LTM			1	X				
9/26/2014	13:38	NBH14-0197	08	SED	231-14LTM			1	X				
9/26/2014	14:24	NBH14-0199	09	SED	230-14LTM			1	X				
9/26/2014	15:17	NBH14-0203	10	SED	117-14LTM			1	X				
9/26/2014	14:32	NBH14-0207	11	SED	114-14LTM			1	X				
9/26/2014	13:36	NBH14-0211	12	SED	111-14LTM			1	X				
9/26/2014	8:21	NBH14-0215	13	SED	152-14LTM			1	X				
9/26/2014	8:50	NBH14-0219	14	SED	152-14LTM			1	X				
9/26/2014	9:24	NBH14-0220	15	SED	138-14LTM			1	X				
9/26/2014	10:54	NBH14-0224	16	SED	126-14LTM			1	X				
9/26/2014	11:50	NBH14-0228	17	SED	108-14LTM			1	X				
9/25/2014	14:16	NBH14-0232	18	SED	139-14LTM			1	X				
9/26/2014	8:56	NBH14-0233	19	SED	242-14LTM			1	X				
9/24/2014	14:40	NBH14-0234	20	SED	306-14LTM			1	X				

Relinquished By (name/date/time):

Paul Scheld 1-OCT-14 12:30

Received By (name/date/time):

[Signature] 10/2/14

[Signature] 10/3/14 0400 rec'd manurel 66 10/3/14 0400

Battelle
The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Mary Davis (508)439-5171
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

Samplers Signature: PSD & MRF
(Please report data to GeoTesting Express)

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:14	NBH14-0237	-21	SED	222-14LTM			1	X				
9/29/2014	15:54	NBH14-0241	-22	SED	224-14LTM			1	X				
9/29/2014	8:06	NBH14-0245	-23	SED	128-14LTM			1	X				
9/29/2014	9:06	NBH14-0249	-24	SED	123-14LTM			1	X				
9/29/2014	10:01	NBH14-0253	-25	SED	121-14LTM			1	X				
9/29/2014	12:47	NBH14-0257	-26	SED	218-14LTM			1	X				
9/29/2014	14:39	NBH14-0261	-27	SED	208-14LTM			1	X				
9/29/2014	15:26	NBH14-0265	-28	SED	207-14LTM			1	X				
9/29/2014	8:13	NBH14-0269	-29	SED	332-14LTM			1	X				
9/29/2014	9:08	NBH14-0273	-30	SED	338-14LTM			1	X				
9/29/2014	9:52	NBH14-0277	-31	SED	331-14LTM			1	X				
9/29/2014	10:45	NBH14-0281	-32	SED	323-14LTM			1	X				
9/29/2014	11:15	NBH14-0285	-33	SED	324-14LTM			1	X				
9/29/2014	12:27	NBH14-0289	-34	SED	325-14LTM			1	X				
9/30/2014	8:00	NBH14-0302	-35	SED	225-14LTM			1	X				
9/30/2014	9:02	NBH14-0306	-36	SED	226-14LTM			1	X				
9/30/2014	9:59	NBH14-0310	-37	SED	227-14LTM			1	X				
9/30/2014	11:47	NBH14-0314	-38	SED	217-14LTM			1	X				
9/30/2014	12:41	NBH14-0318	-39	SED	212-14LTM			1	X				
9/30/2014	13:44	NBH14-0322	-40	SED	211-14LTM			1	X				


Relinquished By (name/date/time):

Paul Schell 1-Oct-14 12:30

Received By (name/date/time):

[Signature] 10/2/14

10/3/14 0400 rec'd manhandled lab 10/3/14 0400

 <p>Chain of Custody The Business of Innovation</p>	Project Manager: Jessica Tenzar Phone: (781) 681-5532
--	--

Ship to: Mary Davis (508)439-5171 Alpha Analytical, Inc. 8 Walkup Drive Westborough, MA 01581	Samplers Signature: PSD & MRF (Please report data to GeoTesting Express)	Site Contact: Matt Fitzpatrick Mobile: (781)733-6797
---	---	---

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	14:36	NBH14-0326	-41	SED	204-14LTM			1	X				

Relinquished By (name/date/time): Paul Smith 1-Oct-14 12:30 3 of 3 Received By (name/date/time): [Signature] 10/2/14

Page 64 of 62 10/3/14 0400 mid manual lab 10/3/14 0400

This page left intentionally blank.

Appendix E
Total PCB Analytical Laboratory Data

This page left intentionally blank.

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED
Batch 14-0493
Package DP-14-0675

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061


Battelle
The Business of Innovation


USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED


Batch 14-0493
Package DP-14-0675

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061






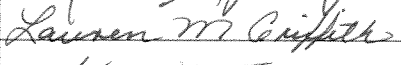




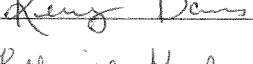
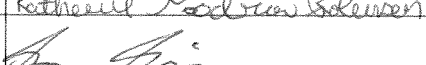

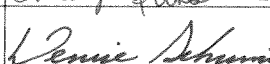












Analyst Approval:  Rich Restucci
2014.11.18 11:55:55 -05'00'

QC Chemist Approval:  Carla Devine
2014.12.09 10:32:51 -05'00'

Project Manager Approval:  Carole McCarthy
2014.12.11 07:40:45 -05'00'

Battelle
The Business of Innovation

2014 Signature Page

Name (print)	Name (signature)	Initials
Matt Schumitz		MNS
Ellyn M Webb		EMW
Carla Devine		CRD
Roxanne M. Brackett		RMB
Robert Lizotte, Jr.		BL
Lauren M Griffith		LMG
Kevin M. McInerney		KMC
Michael McGee		
Rich Restucci		RR
Stephanie Hart		SAH
Kerry Davis		KPD
Katherine Goodrow Robinson		KGR
Sam Guimaraes		SAG
Emily Fraser		EF
Denise Schumitz		DAS
Jonathan Thorn		JRT
Christie Usher		CU
Caitlyn Farragher		CNF
Mart J. Benotti		
William H Brown		WB
Dawn Trapp		DBT
Carolee S. Lynn McLain		CSM
Weidong Li		W.L
Jeannine Seyfert		JS
FRANCO PALA		FP

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED
Batch 14-0493
Package DP-14-0675

1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	23
3	<i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	34
4	<i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	51
5	<i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	83
6	<i>Analytical Data</i> Raw Data Quantification Reports.	168
7	<i>Chromatograms</i> Sample And Standard Chromatograms.	N/A
8	<i>Unused Data</i>	N/A

WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: USACE-NAE New Bedford Harbor LTM MDL Study
Project Number: 100053747
Client: USACE/NAE
696 Virginia Road
Concord, MA 01742
USA
Client Contact Information: Peter Hugh
Engineering Technical Lead
(978) 318-8452(V)
NA
NA
Effective Date of QAPP: 10/9/2014
Version Number: 100053747(S)-02
Project Manager: Peven-McCarthy, Carole
Laboratory Task Manager: Peven-McCarthy, Carole
Deliverable Due Date: 11/3/2014

2.0 SCOPE OF WORK

Overview: A project-specific MDL study is required for this project.
Matrix: Soil/Sediment

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions: Store frozen.
Sub_Sampling: None
Procedures: NA
Contact: NA
Comment: NA
Archiving: NA
Disposal: NA

WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

NA

Samples Expected:	Samples Per Batch:	Batches Expected:
	20	

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

Type:	Description:	Count:	Rgt:	Reference:	Comment:
PB	Laboratory control reagent blank.	1 per batch	--	NA	
LCS	Laboratory Control Sample	1 per batch	No	NA	
MDL	Method Detection Limits	8 per batch	Yes	140304-02: Mud Dump Reference N4415 Lot:N4415	

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev:	5-192-14
SOP Title:	<i>Soil/Sediment Extraction for Trace Level Semi-Volatile Organic Contaminant Analysis</i>
Sample Size:	10 g
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	NA
Comments:	NA

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB Surrogate	ID59 SIS	~ 100 ng	100 uL	NA
ECD LCS/MS Solution	HX10 LCS/MS	~ 38 - 150 ng	75 uL	LCS
PDL spike ECD	ID73 LCS/MS	~ 7.5 - 30.0 ng	150 uL	MDL samples

2.1.3.2 Cleanup

WORK/QUALITY ASSURANCE PROJECT PLAN

- | | | |
|----|--------------|---|
| 1) | SOP No.-Rev: | 5-328-04 |
| | SOP Title: | <i>Removal (cleanup) of Sulfur from Environmental Sample Extracts</i> |
| | Deviations: | NA |
| | Comments: | NA |
| 2) | SOP No.-Rev: | 5-327-04 |
| | SOP Title: | <i>Florisil Cleanup of Environmental Sample Extracts</i> |
| | Deviations: | Elute with Hexane only |
| | Comments: | NA |

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB IS	IE11 RIS	~ 100 ng	100 uL	NA

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

- | | | |
|----|-------------|---|
| 1) | SOP_No-Rev: | 5-128-13 |
| | SOP_Title: | <i>Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection</i> |
| | Deviations: | NA |
| | Comments: | Report SIS corrected data |

2.2. DELIVERABLES

Deliverables Due:	11/3/2014
LIMS Reports:	Yes
Histograms:	No
Excel Tables:	Yes
EICs:	No
Chromatograms:	No

WORK/QUALITY ASSURANCE PROJECT PLAN

EDDs: *Yes*

Comments:

Required 30 day TAT.

EDD required.

Full data package (pdf) required for external validation.

Detailed quant reports are not required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

Staff Member	Role	Comment
Carole S. Peven-McCarthy	Project Manager	NA
Samuel A. Guimaraes	Sample Preparation	NA
Richard P. Restucci Jr	GC/ECD Analysis	NA
Matt D. Schumitz	Sample Custody	NA
Carla R. Devine	Quality Control Officer	NA

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	10/03/2014	NA	0	NA
Sample Preparation	10/06/2014	10/09/2014	3	NA
Instrument Analysis	10/09/2014	10/24/2014	15	NA

WORK/QUALITY ASSURANCE PROJECT PLAN

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Quality Control Review	10/27/2014	10/29/2014	2	NA
Final Data Reporting	10/29/2014	10/31/2014	2	NA

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

Labor Activity:	Hours/ Batch:	Batches:	Total Hours:	Comment:
Sample Receipt	1	1	1	NA
Sample Preparation	24	1	24	NA
<i>Extraction</i>	20			
<i>glassware</i>	4			
Instrument Analysis	16	1	16	NA
<i>GC/ECD</i>	16			
Quality Control Review	3	1	3	NA
Final Data Reporting	1	1	1	NA

7.0 STAFF DEVELOPMENT

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name:	Master_128
SOP Reference:	5-128 - Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection
Description:	Pesticide / PCB by GC/ECD
Matrix:	S - Solid Samples, like soil or sediment, prepared and analyzed under the same class of detection limits.
Detection Limit Study:	5-128-2013-ssMDL-SF
Instrument:	ECD
MQO Criteria	USACE/NBH LTMP
Standard Report:	Standard Result Report

Method Specific Reporting		Holding Times (days)		Data Flags
Result Units:	ng/g	Unit Conversion:	(none)	Sample: 14 DL_Flag: U
Weight Basis:	DRY	Result Format:	Significant Figure	Frozen: 365 RL_Flag: J
Standard Basis:	SIS	# of Figures/Digits:	3	Extract: 40 PB_Flag: B
Oil Weight Basis:	No	Oil Weight Source:	Oil Weight	DIL_Flag: D
U-Value Substitution:	U-Flag=NED	Histograms:	No	HT_Flag: T
ECD_Reporting:	Yes			
ECD_Result:	Higher	ECD_Flag	p	
RPD_Limit (<%):	40	ECD_Manual_Flag:	m	

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Cl2(8)	Cl2(8)	T	Cl5(96)	Cl3(34)	No	No
2	Cl3(18)	Cl3(18)	T	Cl5(96)	Cl3(34)	No	No
3	Cl3(28)	Cl3(28)	T	Cl5(96)	Cl3(34)	No	No
4	Cl4(44)	Cl4(44)	T	Cl5(96)	Cl3(34)	No	No
5	Cl4(52)	Cl4(52)	T	Cl5(96)	Cl3(34)	No	No
6	Cl4(66)	Cl4(66)	T	Cl5(96)	Cl3(34)	No	No
7	Cl5(101)	Cl5(101)	T	Cl5(96)	Cl3(34)	No	No
8	Cl5(105)	Cl5(105)	T	Cl6(161)	Cl6(152)	No	No
9	Cl5(118)	Cl5(118)	T	Cl6(161)	Cl6(152)	No	No
10	Cl6(128)	Cl6(128)	T	Cl6(161)	Cl6(152)	No	No
11	Cl6(138)	Cl6(138)	T	Cl6(161)	Cl6(152)	No	No
12	Cl6(153)	Cl6(153)	T	Cl6(161)	Cl6(152)	No	No
13	Cl7(170)	Cl7(170)	T	Cl6(161)	Cl6(152)	No	No
14	Cl7(180)	Cl7(180)	T	Cl6(161)	Cl6(152)	No	No
15	Cl7(187)	Cl7(187)	T	Cl6(161)	Cl6(152)	No	No
16	Cl8(195)	Cl8(195)	T	Cl6(161)	Cl6(152)	No	No

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
17	CI9(206)	CI9(206)	T	CI6(161)	CI6(152)	No	No
18	CI10(209)	CI10(209)	T	CI6(161)	CI6(152)	No	No
1	CI3(34)	CI3(34)	SIS	CI5(96)		No	No
2	CI6(152)	CI6(152)	SIS	CI6(161)		No	No
Total Analytes:		20					

Subtract Peaks:

None

Sum Peaks:

None

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

ICAL Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Continuing Calibration Verification Criteria:

CCV Name: 5-128

Frequency Hrs:	Mean PD(%):	Individual PD(%):	RIS/SIS RT Window (min):	Area Limit Low(%):	Area Limit High(%):	Comment:
24 (N)	15 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Independent Calibration Verification:

ICC Name: 5-128

Mean PD Limit(%):	Ind. PD Limit(%):	RIS/SIS Window Limit (Secs):	Area Limit High(%):	Area Limit Low(%):	Comment:
20 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Mass Discrimination Criteria:

None

Degradation Check Criteria:

Degradation Check Name: 5-128

DDT Breakdown Limit (%):	Endrin Breakdown Limit(%):	Total Breakdown Limit(%):	Comment:
20 (N)	20 (N)	20 (N)	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Procedural Blank	Samples must be greater than five times the blank concentration (>5xPB).	B	Review with Project Manager; re-analyze or justify results in project records.
PB Measurement Quality Objective	Organic results in the Procedural Blank are less than the ssRL (<ssRL)	N	
Laboratory Control Sample	Recovery values 70-130%.	N	Review with project manager; re-analyze or justify reporting the results in project records.
Matrix Spike Recovery	Organics 70-130%. Analyte concentration in MS must be >5 times reported background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Matrix Spike/Spike Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Spike must be >5x background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Standard Reference Material Accuracy	Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit (>5xMDL).	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the MDL	n	
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Concentration must be >10X the MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 10 times the MDL	n	
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Concentration must be >10X the MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 10 times the MDL	n	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Surrogate Compound Recovery	Recovery results between 40% and 120%.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Control Oil	RPD < 30% for at least 90% of analytes	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Instrument Calibration	5-128-13: R-squared greater than or equal to 0.995 Mean RSD less than or equal to 15%, Individual RSD less than or equal to 25%	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Independent Calibration Check Solution	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 20%.	N	Review with Project Manager; re-analyze or justify in project records.
Continuing Calibration Verification	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 15%.	N	

Sample Receipt Form

Approved: Authorized

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA

COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler		None	Intact	Intact	1.0	23

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0117 (NA) BDO IDs Assigned: M8152 - M8174

Samples logged in by: Schumitz, Matt Date/Time: 09/26/2014 12:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8152	NBH14-0001	09/22/14 15:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8153	NBH14-0005	09/22/14 14:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8154	NBH14-0009	09/22/14 11:16	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8155	NBH14-0013	09/22/14 12:08	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8156	NBH14-0017	09/22/14 8:13	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8157	NBH14-0021	09/22/14 11:38	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8158	NBH14-0025	09/22/14 9:37	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8159	NBH14-0029	09/22/14 10:40	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8160	NBH14-0033	09/22/14 15:25	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8161	NBH14-0037	09/22/14 14:03	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8162	NBH14-0041	09/22/14 13:06	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8163	NBH14-0045	09/23/14 15:43	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8164	NBH14-0049	09/23/14 14:57	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8165	NBH14-0053	09/23/14 13:53	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8166	NBH14-0061	09/23/14 10:12	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8167	NBH14-0065	09/23/14 9:09	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8168	NBH14-0073	09/23/14 14:27	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8169	NBH14-0077	09/23/14 13:39	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8170	NBH14-0081	09/23/14 12:26	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8171	NBH14-0085	09/23/14 11:29	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8172	NBH14-0089	09/23/14 10:32	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8173	NBH14-0093	09/23/14 9:53	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8174	NBH14-0097	09/23/14 8:57	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	

Total Samples: 23



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-18

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:24	NBH14-0001	M8152	SED	120-14LTM	1	X						
9/22/2014	14:24	NBH14-0005	M8153	SED	125-14LTM	1	X						
9/22/2014	11:16	NBH14-0009	M8154	SED	130-14LTM	1	X						
9/22/2014	12:08	NBH14-0013	M8155	SED	134-14LTM	1	X						
9/22/2014	8:13	NBH14-0017	M8156	SED	150-14LTM	1	X						
9/22/2014	11:38	NBH14-0021	M8157	SED	253-14LTM	1	X						
9/22/2014	9:37	NBH14-0025	M8158	SED	216-14LTM	1	X						
9/22/2014	10:40	NBH14-0029	M8159	SED	220-14LTM	1	X						
9/22/2014	15:25	NBH14-0033	M8160	SED	235-14LTM	1	X						
9/22/2014	14:03	NBH14-0037	M8161	SED	240-14LTM	1	X						
9/22/2014	13:06	NBH14-0041	M8162	SED	245-14LTM	1	X						
9/23/2014	15:43	NBH14-0045	M8163	SED	146-14LTM	1	X						
9/23/2014	14:57	NBH14-0049	M8164	SED	140-14LTM	1	X						
9/23/2014	13:53	NBH14-0053	M8165	SED	202-14LTM	1	X						
9/23/2014	10:12	NBH14-0061	M8166	SED	147-14LTM	1	X						
9/23/2014	9:09	NBH14-0065	M8167	SED	135-14LTM	1	X						
9/23/2014	14:27	NBH14-0073	M8168	SED	333-14LTM	1	X						
9/23/2014	13:39	NBH14-0077	M8169	SED	339-14LTM	1	X						
9/23/2014	12:26	NBH14-0081	M8170	SED	346-14LTM	1	X						
9/23/2014	11:29	NBH14-0085	M8171	SED	340-14LTM	1	X						

Relinquished By (name/date/time):

J M Joz 9/26/14 9:15

Received By(name/date/time):

MW 9/26/14 9:15



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061


Samplers Signature: PSD & MRF


Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-19

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	10:32	NBH14-0089	M8172	SED	341-14LTM	1	X						
9/23/2014	9:53	NBH14-0093	M8173	SED	334-14LTM	1	X						
9/23/2014	8:57	NBH14-0097	M8174	SED	335-14LTM	1	X						

Relinquished By (name/date/time):
 9/26/14 9:15

Received By(name/date/time):
 9/26/14

Sample Receipt Form

Approved: Authorized

Project Number: 100043429 Client: USACE
Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM
No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA
COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler	NA	Custody Seals	Intact	Intact	1.2	60

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.2 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0113 (NA) BDO IDs Assigned: M8347 - M8406

Samples logged in by: Schumitz, Matt Date/Time: 10/01/2014 12:00 AM

Approved By: Devine, Carla Approved On: 12/5/2014 9:32:00 AM

Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8347	NBH14-0057	09/30/14 10:09	10/02/14 10:08	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8348	NBH14-0069	09/30/14 10:25	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8349	NBH14-0181	09/26/14 8:36	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8350	NBH14-0185	09/26/14 9:50	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8351	NBH14-0189	09/26/14 11:00	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8352	NBH14-0193	09/26/14 12:49	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8353	NBH14-0197	09/26/14 13:38	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8354	NBH14-0199	09/26/14 14:24	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8355	NBH14-0203	09/26/14 15:17	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8356	NBH14-0207	09/26/14 14:32	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8357	NBH14-0211	09/26/14 13:36	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8358	NBH14-0215	09/26/14 8:21	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8359	NBH14-0219	09/26/14 8:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8360	NBH14-0220	09/26/14 9:24	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8361	NBH14-0224	09/26/14 10:54	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8362	NBH14-0228	09/26/14 11:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8363	NBH14-0232	09/25/14 14:16	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8364	NBH14-0233	09/26/14 8:56	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8365	NBH14-0234	09/24/14 14:40	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8366	NBH14-0237	09/29/14 15:14	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8367	NBH14-0241	09/29/14 15:54	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8368	NBH14-0245	09/29/14 8:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8369	NBH14-0249	09/29/14 9:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8370	NBH14-0253	09/29/14 10:01	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8371	NBH14-0257	09/29/14 12:47	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8372	NBH14-0261	09/29/14 14:39	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8373	NBH14-0265	09/29/14 15:26	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8374	NBH14-0269	09/29/14 8:13	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8375	NBH14-0273	09/29/14 9:08	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8376	NBH14-0277	09/29/14 9:52	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8377	NBH14-0281	09/29/14 10:45	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8378	NBH14-0285	09/29/14 11:15	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8379	NBH14-0289	09/29/14 12:27	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8380	NBH14-0302	09/30/14 8:00	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8381	NBH14-0306	09/30/14 9:02	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8382	NBH14-0310	09/30/14 9:59	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8383	NBH14-0314	09/30/14 11:47	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8384	NBH14-0318	09/30/14 12:41	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8385	NBH14-0322	09/30/14 13:44	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8386	NBH14-0326	09/30/14 14:36	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8387	NBH14-0101	09/24/14 10:17	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8388	NBH14-0105	09/24/14 9:18	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8389	NBH14-0109	09/24/14 10:56	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8390	NBH14-0113	09/24/14 12:10	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8391	NBH14-0117	09/24/14 13:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8392	NBH14-0121	09/24/14 14:24	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8393	NBH14-0125	09/25/14 8:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8394	NBH14-0129	09/25/14 9:49	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8395	NBH14-0133	09/25/14 11:00	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8396	NBH14-0137	09/25/14 11:32	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8397	NBH14-0141	09/25/14 12:58	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8398	NBH14-0145	09/25/14 14:03	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8399	NBH14-0149	09/25/14 14:56	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8400	NBH14-0153	09/25/14 8:19	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8401	NBH14-0157	09/25/14 9:06	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8402	NBH14-0161	09/25/14 9:55	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8403	NBH14-0165	09/25/14 12:58	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8404	NBH14-0169	09/25/14 14:11	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8405	NBH14-0173	09/25/14 15:14	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8406	NBH14-0177	09/26/14 7:39	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Total Samples: 60



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar

Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057	M0347	SED	151-14LTM	1	X						
9/30/2014	10:25	NBH14-0069	" " 48	SED	155-14LTM	1	X						
9/26/2014	8:36	NBH14-0181	49	SED	242-14LTM	1	X						
9/26/2014	9:50	NBH14-0185	50	SED	241-14LTM	1	X						
9/26/2014	11:00	NBH14-0189	51	SED	237-14LTM	1	X						
9/26/2014	12:49	NBH14-0193	52	SED	236-14LTM	1	X						
9/26/2014	13:38	NBH14-0197	53	SED	231-14LTM	1	X						
9/26/2014	14:24	NBH14-0199	54	SED	230-14LTM	1	X						
9/26/2014	15:17	NBH14-0203	55	SED	117-14LTM	1	X						
9/26/2014	14:32	NBH14-0207	56	SED	114-14LTM	1	X						
9/26/2014	13:36	NBH14-0211	57	SED	111-14LTM	1	X						
9/26/2014	8:21	NBH14-0215	58	SED	152-14LTM	1	X						
9/26/2014	8:50	NBH14-0219	59	SED	152-14LTM	1	X						
9/26/2014	9:24	NBH14-0220	60	SED	138-14LTM	1	X						
9/26/2014	10:54	NBH14-0224	61	SED	126-14LTM	1	X						
9/26/2014	11:50	NBH14-0228	62	SED	108-14LTM	1	X						
9/25/2014	14:16	NBH14-0232	63	SED	139-14LTM	1	X						
9/26/2014	8:56	NBH14-0233	64	SED	242-14LTM	1	X						
9/24/2014	14:40	NBH14-0234	65	SED	306-14LTM	1	X						
9/29/2014	15:14	NBH14-0237	66	SED	222-14LTM	1	X						

Relinquished By (name/date/time):

Matthew R. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:54	NBH14-0241	M8367	SED	224-14LTM	1	X						
9/29/2014	8:06	NBH14-0245	68	SED	128-14LTM	1	X						
9/29/2014	9:06	NBH14-0249	69	SED	123-14LTM	1	X						
9/29/2014	10:01	NBH14-0253	70	SED	121-14LTM	1	X						
9/29/2014	12:47	NBH14-0257	71	SED	218-14LTM	1	X						
9/29/2014	14:39	NBH14-0261	72	SED	208-14LTM	1	X						
9/29/2014	15:26	NBH14-0265	73	SED	207-14LTM	1	X						
9/29/2014	8:13	NBH14-0269	74	SED	332-14LTM	1	X						
9/29/2014	9:08	NBH14-0273	75	SED	338-14LTM	1	X						
9/29/2014	9:52	NBH14-0277	76	SED	331-14LTM	1	X						
9/29/2014	10:45	NBH14-0281	77	SED	323-14LTM	1	X						
9/29/2014	11:15	NBH14-0285	78	SED	324-14LTM	1	X						
9/29/2014	12:27	NBH14-0289	79	SED	325-14LTM	1	X						
9/30/2014	8:00	NBH14-0302	80	SED	225-14LTM	1	X						
9/30/2104	9:02	NBH14-0306	81	SED	226-14LTM	1	X						
9/30/2014	9:59	NBH14-0310	82	SED	227-14LTM	1	X						
9/30/2014	11:47	NBH14-0314	83	SED	217-14LTM	1	X						
9/30/2014	12:41	NBH14-0318	84	SED	212-14LTM	1	X						
9/30/2014	13:44	NBH14-0322	85	SED	211-14LTM	1	X						
9/30/2014	14:36	NBH14-0326	86	SED	204-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101	M8387	SED	349-14LTM	1	X						
9/24/2014	9:18	NBH14-0105	" " 88	SED	352-14LTM	1	X						
9/24/2014	10:56	NBH14-0109	89	SED	345-14LTM	1	X						
9/24/2014	12:10	NBH14-0113	90	SED	318-14LTM	1	X						
9/24/2014	13:15	NBH14-0117	91	SED	311-14LTM	1	X						
9/24/2014	14:24	NBH14-0121	92	SED	306-14LTM	1	X						
9/25/2014	8:15	NBH14-0125	93	SED	221-14LTM	1	X						
9/25/2014	9:49	NBH14-0129	94	SED	249-14LTM	1	X						
9/25/2014	11:00	NBH14-0133	95	SED	317-14LTM	1	X						
9/25/2014	11:32	NBH14-0137	96	SED	309-14LTM	1	X						
9/25/2014	12:58	NBH14-0141	97	SED	310-14LTM	1	X						
9/25/2014	14:03	NBH14-0145	98	SED	304-14LTM	1	X						
9/25/2014	14:56	NBH14-0149	99	SED	250-14LTM	1	X						
9/25/2014	8:19	NBH14-0153	M8400	SED	105-14LTM	1	X						
9/25/2014	9:06	NBH14-0157	" " 01	SED	109-14LTM	1	X						
9/25/2014	9:55	NBH14-0161	02	SED	115-14LTM	1	X						
9/25/2014	12:58	NBH14-0165	03	SED	154-14LTM	1	X						
9/25/2014	14:11	NBH14-0169	04	SED	139-14LTM	1	X						
9/25/2014	15:14	NBH14-0173	05	SED	131-14LTM	1	X						
9/26/2014	7:39	NBH14-0177	06	SED	247-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID Procedural Blank

Battelle ID CD580PB-P
Sample Type PB
Collection Date 10/20/2014
Extraction Date 10/20/2014
Analysis Date 10/26/2014
Analytical Instrument ECD
% Moisture 9.75
% Lipid NA
Matrix SEDIMENT
Sample Size 9.18
Size Unit-Basis G_DRY
Units NG/G_DRY

Cl2(8)	0.261 U
Cl3(18)	0.262 U
Cl3(28)	0.262 U
Cl4(44)	0.262 U
Cl4(52)	0.261 U
Cl4(66)	0.261 U
Cl5(101)	0.261 U
Cl5(105)	0.262 U
Cl5(118)	0.262 U
Cl6(128)	0.262 U
Cl6(138)	0.262 U
Cl6(153)	0.262 U
Cl7(170)	0.262 U
Cl7(180)	0.262 U
Cl7(187)	0.262 U
Cl8(195)	0.262 U
Cl9(206)	0.261 U
Cl10(209)	0.262 U

Surrogate Recoveries (%)

Cl3(34)	77
Cl6(152)	84

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID Laboratory Control
Sample
Battelle ID CD581LCS-P
Sample Type LCS
Collection Date 10/20/2014
Extraction Date 10/20/2014
Analysis Date 10/26/2014
Analytical Instrument ECD
% Moisture 9.75
% Lipid NA
Matrix SEDIMENT
Sample Size 9.81
Size Unit-Basis G_DRY
Units NG/G_DRY **Target % REC Qual**

		Target	% REC	Qual
CI2(8)	3.70	3.82	97	
CI3(18)	3.81	3.82	100	
CI3(28)	3.58	3.82	94	
CI4(44)	3.69	3.82	97	
CI4(52)	3.90	3.82	102	
CI4(66)	3.67	3.82	96	
CI5(101)	3.78	3.82	99	
CI5(105)	3.85	3.82	101	
CI5(118)	3.88	3.82	102	
CI6(128)	3.81	3.82	100	
CI6(138)	3.99	3.82	104	
CI6(153)	3.90	3.82	102	
CI7(170)	3.64	3.82	95	
CI7(180)	3.79	3.82	99	
CI7(187)	3.88	3.82	102	
CI8(195)	3.66	3.82	96	
CI9(206)	3.56	3.82	93	
CI10(209)	3.81	3.82	100	

Surrogate Recoveries (%)

CI3(34)	80			
CI6(152)	89			

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0001	NBH14-0005	NBH14-0009	NBH14-0013
Battelle ID	M8152-P	M8153-P	M8154-P	M8155-P
Sample Type	SA	SA	SA	SA
Collection Date	09/22/2014	09/22/2014	09/22/2014	09/22/2014
Extraction Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Analysis Date	10/26/2014	10/26/2014	10/26/2014	10/26/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	10.00	6.00	1.50	15.00
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	0.88	0.95	0.99	0.85
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	988 D	1390 D	2250 D	2970 D
Cl3(18)	2150 D	3070 D	4700 D	5060 D
Cl3(28)	5690 D	8120 D	8840 D	11000 D
Cl4(44)	1470 D	2370 D	3180 D	4610 D
Cl4(52)	7480 D	12300 D	13100 D	12500 D
Cl4(66)	834 D	1450 D	1510 D	2110 D
Cl5(101)	1620 D	2400 D	2630 D	3910 D
Cl5(105)	280	378	423	720 D
Cl5(118)	2200 D	2740 D	3520 D	6040 D
Cl6(128)	264	313	376	526 D
Cl6(138)	1480 Dp	1800 Dp	2090 D	2780 D
Cl6(153)	2480 D	3150 D	3370 D	4850 D
Cl7(170)	260	297	352	464 D
Cl7(180)	373	462 D	536 D	739 D
Cl7(187)	404	509 D	560 D	620 D
Cl8(195)	60.1	65.0	69.9	63.2
Cl9(206)	62.0	76.2	69.6	86.9
Cl10(209)	18.8	20.6	15.6	26.8

Surrogate Recoveries (%)

Cl3(34)	113	98	101	113
Cl6(152)	79	86	76	80

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0065	NBH14-0207	NBH14-0211	NBH14-0220
Battelle ID	M8167-P	M8356-P	M8357-P	M8360-P
Sample Type	SA	SA	SA	SA
Collection Date	09/23/2014	09/26/2014	09/26/2014	09/26/2014
Extraction Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Analysis Date	10/26/2014	10/26/2014	10/26/2014	10/26/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	1.03	11.68	12.06	21.94
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	0.99	0.90	0.93	0.82
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	12.4	4070 D	7750 D	483 D
Cl3(18)	31.0	9280 D	17900 D	1020 D
Cl3(28)	78.1	19600 D	16000 D	2810 D
Cl4(44)	26.1	4880 D	6980 D	1040 D
Cl4(52)	123	31500 D	45500 D	4040 D
Cl4(66)	22.0	2380 D	2840 D	819 D
Cl5(101)	38.4	3840 D	2480 D	1430 D
Cl5(105)	7.99	325	108	308
Cl5(118)	51.0	2930 D	2580 D	1710 D
Cl6(128)	6.04	360	156	314
Cl6(138)	34.8	2040 D	3100 D	1180 D
Cl6(153)	50.5	4060 D	5720 D	1620 D
Cl7(170)	3.66	434	337	225
Cl7(180)	5.97	615 D	562 D	339
Cl7(187)	6.86	778 D	1210 D	253
Cl8(195)	2.56 U	109	89.3	40.6
Cl9(206)	2.55 U	135	146	47.1
Cl10(209)	2.56 U	35.5	37.6	14.9

Surrogate Recoveries (%)

Cl3(34)	91	83	118	110
Cl6(152)	87	93	101	101

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0224	NBH14-0228	NBH14-0232	NBH14-0245
Battelle ID	M8361-P	M8362-P	M8363-P	M8368-P
Sample Type	SA	SA	SA	SA
Collection Date	09/26/2014	09/26/2014	09/25/2014	09/29/2014
Extraction Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Analysis Date	10/26/2014	10/26/2014	10/26/2014	10/26/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	0.93	19.79	3.50	21.84
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	1.10	0.87	0.97	0.78
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	106	747 D	828 D	9420 D
Cl3(18)	286 D	1600 D	1870 D	19000 D
Cl3(28)	518 D	2120 D	4110 D	24600 D
Cl4(44)	139	798 D	1480 D	9680 D
Cl4(52)	834 D	3680 D	6930 D	36600 D
Cl4(66)	83.1	324 D	880 D	3580 D
Cl5(101)	178 D	288	1390 D	5680 D
Cl5(105)	32.8	59.4	338	507
Cl5(118)	228	344 D	2430 D	6180 D
Cl6(128)	29.4	49.3	382	561
Cl6(138)	139	355 p	1580 D	2920 D
Cl6(153)	214	465 D	2260 D	5270 D
Cl7(170)	20.8	53.0	273	466 D
Cl7(180)	33.9	85.0	400	794 D
Cl7(187)	36.4	162 p	336	885 D
Cl8(195)	1.77 J	44.3 p	45.5	115
Cl9(206)	3.09	112	60.5	141
Cl10(209)	2.31 U	94.1	22.6	38.5

Surrogate Recoveries (%)

Cl3(34)	92	105	119	86
Cl6(152)	73	85	87	84

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0249	NBH14-0253	NBH14-0101	NBH14-0153
Battelle ID	M8369-P	M8370-P	M8387-P	M8400-P
Sample Type	SA	SA	SA	SA
Collection Date	09/29/2014	09/29/2014	09/24/2014	09/25/2014
Extraction Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Analysis Date	10/26/2014	10/26/2014	10/26/2014	10/27/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	11.11	4.48	0.45	33.50
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	0.88	0.96	10.01	0.69
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	1970 D	4390 D	0.188 pJ	2700 D
Cl3(18)	5510 D	9680 D	0.254 U	8230 D
Cl3(28)	9560 D	14900 D	1.12	12500 D
Cl4(44)	2910 D	3860 D	0.129 pJ	4380 D
Cl4(52)	16900 D	26800 D	0.768 p	27100 D
Cl4(66)	1480 D	1980 D	0.930	2260 D
Cl5(101)	2310 D	2770 D	0.956	3040 D
Cl5(105)	278	490 D	0.305	226
Cl5(118)	2160 D	2610 D	1.79	2340 D
Cl6(128)	287	386 D	0.331 p	282
Cl6(138)	1480 Dp	1960 D	1.40	1830 D
Cl6(153)	2550 D	3030 D	1.30	3110 D
Cl7(170)	278	369	0.254 U	329
Cl7(180)	435	450 D	0.254 pU	531
Cl7(187)	453	488 D	0.191 pJ	620 D
Cl8(195)	57.9	73.2	0.254 U	76.4
Cl9(206)	74.3	88.6	0.252 U	104
Cl10(209)	18.6	22.8	0.254 U	26.6

Surrogate Recoveries (%)

Cl3(34)	86	76	89	81
Cl6(152)	90	90	83	97

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0157	NBH14-0161	NBH14-0169	NBH14-0173
Battelle ID	M8401-P	M8402-P	M8404-P	M8405-P
Sample Type	SA	SA	SA	SA
Collection Date	09/25/2014	09/25/2014	09/25/2014	09/25/2014
Extraction Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Analysis Date	10/27/2014	10/27/2014	10/27/2014	10/27/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	3.11	2.91	11.21	2.93
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	0.98	0.98	0.91	0.99
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	4320 D	195000 D	836 D	848 D
Cl3(18)	17900 D	226000 D	1880 D	2180 D
Cl3(28)	24400 D	83700 D	3730 D	3580 D
Cl4(44)	8820 D	53600 D	1360 D	1520 D
Cl4(52)	56700 D	309000 D	6450 D	7110 D
Cl4(66)	4390 D	51.6 U	1010 D	802 D
Cl5(101)	5110 D	19900 D	1480 D	1320 D
Cl5(105)	364	482 D	356	236
Cl5(118)	3770 D	7600 D	2440 D	1850 D
Cl6(128)	340 D	1690 D	341	239
Cl6(138)	3040 D	10700 D	1520 D	1180 D
Cl6(153)	7270 D	14000 D	2100 D	1800 D
Cl7(170)	411 D	2520 Dp	263	195
Cl7(180)	727 D	4050 D	396	297
Cl7(187)	1320 D	4380 D	355	274
Cl8(195)	156	527 D	49.4	37.2
Cl9(206)	214	623 D	55.8	45.0
Cl10(209)	57.5	120 D	18.0	14.7

Surrogate Recoveries (%)

Cl3(34)	93	0 NDH	112	115
Cl6(152)	84	0 NDH	89	95

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0065	NBH14-0065	
Battelle ID	M8167-P	M8167DUP-P	
Sample Type	SA	QADU	
Collection Date	09/23/2014	09/23/2014	
Extraction Date	10/20/2014	10/20/2014	
Analysis Date	10/26/2014	10/26/2014	
Analytical Instrument	ECD	ECD	
% Moisture	1.03	0.51	
% Lipid	NA	NA	
Matrix	SED	SED	
Sample Size	0.99	1.00	
Size Unit-Basis	G_DRY	G_DRY	
Units	NG/G_DRY	NG/G_DRY	RPD Qual

Cl2(8)	12.4	12.2	1.6
Cl3(18)	31.0	29.0	6.7
Cl3(28)	78.1	77.0	1.4
Cl4(44)	26.1	26.7	2.3
Cl4(52)	123	121	1.6
Cl4(66)	22.0	25.5	14.7
Cl5(101)	38.4	36.5	5.1
Cl5(105)	7.99	7.29	9.2
Cl5(118)	51.0	52.4	2.7
Cl6(128)	6.04	7.19	17.4
Cl6(138)	34.8	38.0	8.8
Cl6(153)	50.5	51.8	2.5
Cl7(170)	3.66	3.85	5.1
Cl7(180)	5.97	6.52	8.8
Cl7(187)	6.86	6.98	1.7
Cl8(195)	2.56 U	2.54 U	
Cl9(206)	2.55 U	2.53 U	
Cl10(209)	2.56 U	2.54 U	

Surrogate Recoveries (%)

Cl3(34)	91	88	
Cl6(152)	87	82	

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0101	NBH14-0101			
Battelle ID	M8387-P	M8387MS-P			
Sample Type	SA	MS			
Collection Date	09/24/2014	09/24/2014			
Extraction Date	10/20/2014	10/20/2014			
Analysis Date	10/26/2014	10/26/2014			
Analytical Instrument	ECD	ECD			
% Moisture	0.45	0.00			
% Lipid	NA	NA			
Matrix	SED	SED			
Sample Size	10.01	5.01			
Size Unit-Basis	G_DRY	G_DRY			
Units	NG/G_DRY	NG/G_DRY	Target	% REC	Qual
Cl2(8)	0.188 pJ	11.7	12.48	92	
Cl3(18)	0.254 U	12.2	12.48	98	
Cl3(28)	1.12	13.2	12.48	97	
Cl4(44)	0.129 pJ	13.6	12.48	108	
Cl4(52)	0.768 p	12.6	12.48	95	
Cl4(66)	0.930	13.3	12.48	99	
Cl5(101)	0.956	10.3	12.48	75	
Cl5(105)	0.305	13.4	12.48	105	
Cl5(118)	1.79	14.0	12.48	98	
Cl6(128)	0.331 p	12.6	12.48	98	
Cl6(138)	1.40	14.2	12.48	103	
Cl6(153)	1.30	14.1	12.48	103	
Cl7(170)	0.254 U	12.6	12.48	101	
Cl7(180)	0.254 pU	12.7	12.48	101	
Cl7(187)	0.191 pJ	12.9	12.48	102	
Cl8(195)	0.254 U	12.8	12.48	103	
Cl9(206)	0.252 U	12.9	12.48	103	
Cl10(209)	0.254 U	13.8	12.48	111	
Surrogate Recoveries (%)					
Cl3(34)	89	91			
Cl6(152)	83	91			

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID NBH14-0101

Battelle ID M8387MSD-P

Sample Type MSD

Collection Date 09/24/2014

Extraction Date 10/20/2014

Analysis Date 10/27/2014

Analytical Instrument ECD

% Moisture 0.49

% Lipid NA

Matrix SED

Sample Size 4.98

Size Unit-Basis G_DRY

Units NG/G_DRY **Target % REC Qual RPD Qual**

		Target	% REC	Qual	RPD	Qual
CI2(8)	11.8	12.55	93		1.1	
CI3(18)	12.0	12.55	96		2.1	
CI3(28)	13.1	12.55	95		2.1	
CI4(44)	13.5	12.55	107		0.9	
CI4(52)	13.4	12.55	101		6.1	
CI4(66)	13.3	12.55	99		0.0	
CI5(101)	10.5	12.55	76		1.3	
CI5(105)	13.2	12.55	103		1.9	
CI5(118)	14.4	12.55	100		2.0	
CI6(128)	12.8 p	12.55	99		1.0	
CI6(138)	13.8	12.55	99		4.0	
CI6(153)	14.3	12.55	104		1.0	
CI7(170)	12.2	12.55	97		4.0	
CI7(180)	12.6	12.55	100		1.0	
CI7(187)	13.1	12.55	103		1.0	
CI8(195)	12.1	12.55	96		7.0	
CI9(206)	11.7	12.55	93		10.2	
CI10(209)	12.4	12.55	99		11.4	

Surrogate Recoveries (%)

CI3(34)	89
CI6(152)	90

Glossary of Data Qualifiers

Flag: Application:

- B Analyte concentration found in the sample at a concentration <5x the level found in the procedural blank.
- D Dilution Run. Initial run outside linear range of instrument.
- E Estimate, result is greater than the highest concentration level in the calibration.
- H Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
- J Analyte detected below the sample-specific Reporting Limit (RL).
- m Confirmation column manually over-ridden by analyst, dual column quantitative analysis only.
- ME Significant Matrix Interference - Estimated value.
- MI Significant Matrix Interference - value could not be determined or estimated.
- n Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets the contingency criteria.
- N Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
- NA Not applicable
- p Dual column value exceeds RPD criteria, dual column quantitative analysis only.
- T Holding Time (HT) exceeded.
- U Analyte not detected at 3:1 signal:noise ratio.

**QA/QC Summary
Batch 14-0493**

Project:	USACE/NAE – New Bedford Harbor Long Term Monitoring
Parameters:	PCB Congeners (NOAA 18)
Laboratory:	Battelle, Norwell, MA
Matrix:	Sediment
Data Set:	DP-14-0675
Analytical SOP:	5-128
Method Reference:	EPA Method 8081B and 8082A (modified)

Sample Custody

Collection Date	Receipt Date	Temp (°C)
9/22-30/2014	9/26,10/1/2014	1.0,1.2

Corrective Actions	NA
Sample Storage	The sediment samples were stored frozen until extraction.
Related samples	NA

METHOD SUMMARIES

Sample Preparation	<p>Prior to sediment extraction, an aliquot of approximately 30 g of wet sediment was placed on clean, labeled aluminum foil, covered and placed in a laboratory laminar flow hood to dry the sample to <50% moisture. Aliquots of these dried samples were weighed into sample extraction vessels for sample extraction. Approximately 1 to 10 g sediment was weighed out for extraction (sample weight based on historical analysis results). The sediments were spiked with surrogates, extracted three times with methylene chloride, and the extracts combined, dried over anhydrous sodium sulfate, and concentrated. The concentrated extracts were processed through Florisil to isolate the PCBs, followed by activated copper treatment to remove sulfur. The cleaned extract was concentrated and fortified with internal standard (IS) compounds prior to analysis by GC/ECD.</p>
Prep Comments	No comments.

Analysis	<p>PCBs were analyzed by gas chromatography electron capture detection (GC/ECD). An initial calibration consisting of target analytes was analyzed prior to sample analysis to demonstrate the linear range. Calibration verification was performed at the beginning and end of each 24-hr period in which samples were analyzed. Concentrations of target compounds were calculated versus internal standards using the average response factors (RF) generated from the initial calibration.</p>
Analysis Comments	<ul style="list-style-type: none"> Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96, 28, 66, and 101. As these interferences are not matrix derived, but stem from

**QA/QC Summary
Batch 14-0493**

	<p>additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.</p> <ul style="list-style-type: none"> • In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency. • In cases where p qualifiers are present, integrations and data were reviewed. • Method MM0417B is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak. Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
--	---

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/20/2014	10/26-27/2014; 10/29-30/2014; 10/31/2014; 11/15/2014

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
Blank value <5x ssMDL	No exceedences noted.
Samples >5X PB	No comments.

Laboratory Control Spike	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
70-130% recovery	No exceedences noted.
	No comments.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	A MS/MSD pair was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy. The relative percent difference (RPD) was calculated to measure data quality in terms of precision.
70-130% recovery	No exceedences noted
<30% RPD	No comments.
Spike must be >5x bkgd conc.	

**QA/QC Summary
Batch 14-0493**

Sample Duplicate (DUP)	A laboratory duplicate of one sediment was prepared with the analytical batch. The relative percent difference (RPD) was calculated to measure data quality in terms of precision. NOTE: This QC sample was inadvertently included in the sample batch instead of the requested SRM.
<30% RPD Conc must be >10X MDL	No exceedences noted. No comments.

Surrogate Recovery	Surrogate compounds were added prior to extraction. The surrogate recoveries are calculated to measure extraction efficiency.
40-120% recovery	Two exceedences noted. Original, undiluted sample M8402-P(2) exhibits high levels of target analytes which interfere with SIS and IS. The primary dilution is used as the primary file for this sample, where the SIS are diluted out. SIS are appropriately H qualified. The data for this sample are not surrogate corrected.

Initial Calibration (ICAL)	The GC/ECD was calibrated with six-level quadratic calibration curve for all compounds using an instrument response factor (RF).
$R^2 \geq 0.995$	No exceedences noted. No comments.

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
$\leq 20\%$ difference individual and mean	No exceedences noted. No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run every 24 hours to ensure that initial calibration is still valid.
$\leq 20\%$ difference individual; $\leq 15\%$ difference mean	No exceedences noted. No comments.

Report Project Data Set MOOs

Project Title: USACE/NAE - New Bedford Harbor LTM

Data Set Number: DP-14-0675

Project Number: 100053747

Prep Batch Number: 14-0493

Test Code (Matrix Type): Master_128(S)

QC_PARAMETER:	Exceed:	Contg.:	JUSTIFICATION:
Procedural Blank	0	0	None
PB Measurement Quality Objective	0	0	None
Laboratory Control Sample	0	0	None
Matrix Spike Recovery	0	0	None
Matrix Spike/Spike Duplicate Precision	0	0	None
Standard Reference Material Accuracy	NA	NA	NA
Analytical Duplicate Precision	0	0	None
Analytical Triplicate Precision	NA	NA	NA
Surrogate Compound Recovery	2	0	Original, undiluted sample M8402-P(2) exhibits high levels of target analytes which interfere with SIS and IS. The primary dilution is used as the primary file for this sample, where the SIS are diluted out. SIS are appropriately H qualified.
Control Oil	NA	NA	NA
Instrument Calibration	0	0	None
Independent Calibration Check Solution	0	0	None
Continuing Calibration Verification	0	0	None

RR 02/16/2015

BATTELLE - DUXBURY OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title: USACE/NAE - New Bedford Harbor LTM **Data Set Number:** DP-14-0675
Project Number: 100053747 **Prep Batch Number:** 14-0493
Entered By: Richard Restucci Jr **Entered On:** 11/18/2014
Test Code (Matrix Type): Master_128(S)

Integrations by Rich Restucci.
RR 11/18/14

Method MM0417B is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak.

Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
RR 11/18/14

Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.
RR 11/18/14

In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency.
RR 11/18/14

In cases where p qualifiers are present, integrations and data were reviewed.
RR 11/18/14

Task Leader Approval:  Kevin McNerney
2014.12.08 14:07:08 -05'00'

Supervisor Approval:  Carole McCarthy
2014.12.09 07:45:33 -05'00'

PM Approval:  Carole McCarthy
2014.12.09 07:45:33 -05'00'

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	2021371
SM0417.S	M7207.D	IE05	CS	CI5(96)	2103011
SM0417.S	M7208.D	IE06	CS	CI5(96)	2225995
SM0417.S	M7209.D	IE07	CS	CI5(96)	2400478
SM0417.S	M7210.D	IE08	CS	CI5(96)	2523572
SM0417.S	M7212.D	IE10	CS	CI5(96)	2857033

L3
(+)
(-)

2225995
4451990
1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	2508888	
SM0418.S	M7252.D	IE08	CCV	CI5(96)	2503423	
SM0418.S	M7253.D	CD580PB-P(0)	PB	CI5(96)	2558363	
SM0418.S	M7254.D	CD581LCS-P(0)	LCS	CI5(96)	2768412	
SM0418.S	M7255.D	M8152-P(2)	SA	CI5(96)	2637572	
SM0418.S	M7256.D	M8153-P(2)	SA	CI5(96)	2481340	
SM0418.S	M7257.D	M8154-P(2)	SA	CI5(96)	2883928	
SM0418.S	M7258.D	M8155-P(2)	SA	CI5(96)	2476290	
SM0418.S	M7259.D	M8167-P(2)	SA	CI5(96)	3609297	
SM0418.S	M7260.D	M8167DUP-P(2)	QADU	CI5(96)	3127952	
SM0418.S	M7261.D	M8356-P(2)	SA	CI5(96)	2905499	
SM0418.S	M7262.D	M8357-P(2)	SA	CI5(96)	2987928	
SM0418.S	M7263.D	IE07	CCV	CI5(96)	3503800	
SM0418.S	M7264.D	M8360-P(2)	SA	CI5(96)	2370713	
SM0418.S	M7265.D	M8361-P(2)	SA	CI5(96)	3844228	
SM0418.S	M7266.D	M8362-P(2)	SA	CI5(96)	3037866	
SM0418.S	M7267.D	M8363-P(2)	SA	CI5(96)	2787303	
SM0418.S	M7268.D	M8368-P(2)	SA	CI5(96)	2866852	
SM0418.S	M7269.D	M8369-P(2)	SA	CI5(96)	2390269	
SM0418.S	M7270.D	M8370-P(2)	SA	CI5(96)	2802792	
SM0418.S	M7271.D	M8387-P(2)	SA	CI5(96)	3096478	
SM0418.S	M7272.D	M8387MS-P(0)	MS	CI5(96)	2794790	
SM0418.S	M7273.D	M8387MSD-P(0)	MSD	CI5(96)	3335608	
SM0418.S	M7274.D	IE08	CCV	CI5(96)	3362143	
SM0418.S	M7274A.D	M8400-P(2)	SA	CI5(96)	2497949	
SM0418.S	M7274B.D	M8401-P(2)	SA	CI5(96)	2784850	
SM0418.S	M7274D.D	M8404-P(2)	SA	CI5(96)	2764098	
SM0418.S	M7274E.D	M8405-P(2)	SA	CI5(96)	2014377	
SM0418.S	M7274F.D	M8400-P-D(4)	SA	CI5(96)	3176875	
SM0418.S	M7274G.D	M8401-P-D(4)	SA	CI5(96)	3510574	
SM0418.S	M7274H.D	M8402-P-D(4)	SA	CI5(96)	3643347	
SM0418.S	M7274I.D	M8404-P-D(4)	SA	CI5(96)	3243028	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0418.S	M7274J.D	M8405-P-D(4)	SA	CI5(96)	3234848	
SM0418.S	M7274K.D	IE07	CCV	CI5(96)	3216545	
SM0418.S	M7275.D	M8152-P-D(4)	SA	CI5(96)	3406914	
SM0418.S	M7276.D	M8153-P-D(4)	SA	CI5(96)	3482089	
SM0418.S	M7277.D	M8154-P-D(4)	SA	CI5(96)	3382846	
SM0418.S	M7278.D	M8155-P-D(4)	SA	CI5(96)	3070304	
SM0418.S	M7281.D	M8356-P-D(4)	SA	CI5(96)	3597548	
SM0418.S	M7282.D	M8357-P-D(4)	SA	CI5(96)	3055648	
SM0418.S	M7283.D	M8360-P-D(4)	SA	CI5(96)	3289085	
SM0418.S	M7284.D	M8361-P-D(4)	SA	CI5(96)	2992240	
SM0418.S	M7285.D	IE07	CCV	CI5(96)	3560529	
SM0418.S	M7286.D	M8362-P-D(4)	SA	CI5(96)	2943758	
SM0418.S	M7287.D	M8363-P-D(4)	SA	CI5(96)	3086995	
SM0418.S	M7288.D	M8368-P-D(4)	SA	CI5(96)	3094014	
SM0418.S	M7289.D	M8369-P-D(4)	SA	CI5(96)	3251142	
SM0418.S	M7290.D	M8370-P-D(4)	SA	CI5(96)	3217440	
SM0418.S	M7292.D	IE08	CCV	CI5(96)	3877495	
SM0419.S	M7325.D	IE07	CCV	CI5(96)	3376347	
SM0419.S	M7326.D	M8152-P-D(5)	SA	CI5(96)	2767041	
SM0419.S	M7327.D	M8153-P-D(5)	SA	CI5(96)	2816223	
SM0419.S	M7328.D	M8154-P-D(5)	SA	CI5(96)	2949879	
SM0419.S	M7329.D	M8155-P-D(5)	SA	CI5(96)	2990561	
SM0419.S	M7330.D	M8356-P-D(5)	SA	CI5(96)	2938650	
SM0419.S	M7331.D	M8357-P-D(5)	SA	CI5(96)	3048346	
SM0419.S	M7332.D	M8368-P-D(5)	SA	CI5(96)	2889515	
SM0419.S	M7333.D	M8369-P-D(5)	SA	CI5(96)	2821161	
SM0419.S	M7334.D	M8370-P-D(5)	SA	CI5(96)	2973108	
SM0419.S	M7335.D	M8400-P-D(5)	SA	CI5(96)	3085883	
SM0419.S	M7336.D	IE08	CCV	CI5(96)	3814908	
SM0419.S	M7337.D	M8401-P-D(5)	SA	CI5(96)	3115868	
SM0419.S	M7338.D	M8402-P-D(5)	SA	CI5(96)	3622059	
SM0419.S	M7339.D	M8404-P-D(5)	SA	CI5(96)	3100391	
SM0419.S	M7340.D	M8405-P-D(5)	SA	CI5(96)	3030324	
SM0419.S	M7341.D	IE07	CCV	CI5(96)	3379095	
SM0420.S	M7364.D	IE07	CCV	CI5(96)	2938384	
SM0420.S	M7365.D	M8402-P-D(7)	SA	CI5(96)	2245288	
SM0420.S	M7366.D	IE08	CCV	CI5(96)	2882190	
SM0424.S	M7603.D	IE07	CCV	CI5(96)	3483421	
SM0424.S	M7613.D	M8363-P-D(5)	SA	CI5(96)	2862754	
SM0424.S	M7614.D	IE08	CCV	CI5(96)	3364116	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	4304957
SM0417.S	M7207.D	IE05	CS	Cl6(161)	4562564
SM0417.S	M7208.D	IE06	CS	Cl6(161)	4815577
SM0417.S	M7209.D	IE07	CS	Cl6(161)	5366502
SM0417.S	M7210.D	IE08	CS	Cl6(161)	5424577
SM0417.S	M7212.D	IE10	CS	Cl6(161)	5785136

L3
(+)
(-)

4815577
9631155
2407789

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	5353469	
SM0418.S	M7252.D	IE08	CCV	Cl6(161)	5514363	
SM0418.S	M7253.D	CD580PB-P(0)	PB	Cl6(161)	4492702	
SM0418.S	M7254.D	CD581LCS-P(0)	LCS	Cl6(161)	4746649	
SM0418.S	M7255.D	M8152-P(2)	SA	Cl6(161)	5230257	
SM0418.S	M7256.D	M8153-P(2)	SA	Cl6(161)	5978963	
SM0418.S	M7257.D	M8154-P(2)	SA	Cl6(161)	6152753	
SM0418.S	M7258.D	M8155-P(2)	SA	Cl6(161)	7248097	
SM0418.S	M7259.D	M8167-P(2)	SA	Cl6(161)	7247431	
SM0418.S	M7260.D	M8167DUP-P(2)	QADU	Cl6(161)	6620840	
SM0418.S	M7261.D	M8356-P(2)	SA	Cl6(161)	4701199	
SM0418.S	M7262.D	M8357-P(2)	SA	Cl6(161)	4380345	
SM0418.S	M7263.D	IE07	CCV	Cl6(161)	8118012	
SM0418.S	M7264.D	M8360-P(2)	SA	Cl6(161)	4556617	
SM0418.S	M7265.D	M8361-P(2)	SA	Cl6(161)	7925858	
SM0418.S	M7266.D	M8362-P(2)	SA	Cl6(161)	5326577	
SM0418.S	M7267.D	M8363-P(2)	SA	Cl6(161)	5087859	
SM0418.S	M7268.D	M8368-P(2)	SA	Cl6(161)	4785445	
SM0418.S	M7269.D	M8369-P(2)	SA	Cl6(161)	4951624	
SM0418.S	M7270.D	M8370-P(2)	SA	Cl6(161)	5133630	
SM0418.S	M7271.D	M8387-P(2)	SA	Cl6(161)	6330074	
SM0418.S	M7272.D	M8387MS-P(0)	MS	Cl6(161)	5471518	
SM0418.S	M7273.D	M8387MSD-P(0)	MSD	Cl6(161)	6582280	
SM0418.S	M7274.D	IE08	CCV	Cl6(161)	7429783	
SM0418.S	M7274A.D	M8400-P(2)	SA	Cl6(161)	4430780	
SM0418.S	M7274B.D	M8401-P(2)	SA	Cl6(161)	5113679	
SM0418.S	M7274D.D	M8404-P(2)	SA	Cl6(161)	5765366	
SM0418.S	M7274E.D	M8405-P(2)	SA	Cl6(161)	5579760	
SM0418.S	M7274F.D	M8400-P-D(4)	SA	Cl6(161)	7784313	
SM0418.S	M7274G.D	M8401-P-D(4)	SA	Cl6(161)	8686728	
SM0418.S	M7274H.D	M8402-P-D(4)	SA	Cl6(161)	4687937	
SM0418.S	M7274I.D	M8404-P-D(4)	SA	Cl6(161)	7746904	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0418.S	M7274J.D	M8405-P-D(4)	SA	Cl6(161)	7146689	
SM0418.S	M7274K.D	IE07	CCV	Cl6(161)	7289019	
SM0418.S	M7275.D	M8152-P-D(4)	SA	Cl6(161)	8028174	
SM0418.S	M7276.D	M8153-P-D(4)	SA	Cl6(161)	7903402	
SM0418.S	M7277.D	M8154-P-D(4)	SA	Cl6(161)	8278172	
SM0418.S	M7278.D	M8155-P-D(4)	SA	Cl6(161)	7326429	
SM0418.S	M7281.D	M8356-P-D(4)	SA	Cl6(161)	8394196	
SM0418.S	M7282.D	M8357-P-D(4)	SA	Cl6(161)	4919129	
SM0418.S	M7283.D	M8360-P-D(4)	SA	Cl6(161)	8015995	
SM0418.S	M7284.D	M8361-P-D(4)	SA	Cl6(161)	6558205	
SM0418.S	M7285.D	IE07	CCV	Cl6(161)	8056736	
SM0418.S	M7286.D	M8362-P-D(4)	SA	Cl6(161)	6367899	
SM0418.S	M7287.D	M8363-P-D(4)	SA	Cl6(161)	6755595	
SM0418.S	M7288.D	M8368-P-D(4)	SA	Cl6(161)	8070732	
SM0418.S	M7289.D	M8369-P-D(4)	SA	Cl6(161)	7835514	
SM0418.S	M7290.D	M8370-P-D(4)	SA	Cl6(161)	7679457	
SM0418.S	M7292.D	IE08	CCV	Cl6(161)	8907856	
SM0419.S	M7325.D	IE07	CCV	Cl6(161)	7434625	
SM0419.S	M7326.D	M8152-P-D(5)	SA	Cl6(161)	5696514	
SM0419.S	M7327.D	M8153-P-D(5)	SA	Cl6(161)	6320722	
SM0419.S	M7328.D	M8154-P-D(5)	SA	Cl6(161)	6663226	
SM0419.S	M7329.D	M8155-P-D(5)	SA	Cl6(161)	6552986	
SM0419.S	M7330.D	M8356-P-D(5)	SA	Cl6(161)	6671910	
SM0419.S	M7331.D	M8357-P-D(5)	SA	Cl6(161)	6679027	
SM0419.S	M7332.D	M8368-P-D(5)	SA	Cl6(161)	6150244	
SM0419.S	M7333.D	M8369-P-D(5)	SA	Cl6(161)	5961579	
SM0419.S	M7334.D	M8370-P-D(5)	SA	Cl6(161)	6464020	
SM0419.S	M7335.D	M8400-P-D(5)	SA	Cl6(161)	6875052	
SM0419.S	M7336.D	IE08	CCV	Cl6(161)	8230646	
SM0419.S	M7337.D	M8401-P-D(5)	SA	Cl6(161)	6757821	
SM0419.S	M7338.D	M8402-P-D(5)	SA	Cl6(161)	7357294	
SM0419.S	M7339.D	M8404-P-D(5)	SA	Cl6(161)	6862649	
SM0419.S	M7340.D	M8405-P-D(5)	SA	Cl6(161)	6863940	
SM0419.S	M7341.D	IE07	CCV	Cl6(161)	7495292	
SM0420.S	M7364.D	IE07	CCV	Cl6(161)	7017547	
SM0420.S	M7365.D	M8402-P-D(7)	SA	Cl6(161)	4957816	
SM0420.S	M7366.D	IE08	CCV	Cl6(161)	5960128	
SM0424.S	M7603.D	IE07	CCV	Cl6(161)	7849561	
SM0424.S	M7613.D	M8363-P-D(5)	SA	Cl6(161)	6512860	
SM0424.S	M7614.D	IE08	CCV	Cl6(161)	7233456	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12822282
SM0417.S	M7207.D	IE05	CS	CI5(96)	12416297
SM0417.S	M7208.D	IE06	CS	CI5(96)	13716870
SM0417.S	M7209.D	IE07	CS	CI5(96)	14992953
SM0417.S	M7210.D	IE08	CS	CI5(96)	15446142
SM0417.S	M7212.D	IE10	CS	CI5(96)	15534608
				L3	13716870
				(+)	27433739
				(-)	6858435

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13890681	
SM0418.S	M7252.D	IE08	CCV	CI5(96)	13940421	
SM0418.S	M7253.D	CD580PB-P(0)	PB	CI5(96)	14387734	
SM0418.S	M7254.D	CD581LCS-P(0)	LCS	CI5(96)	13884990	
SM0418.S	M7255.D	M8152-P(2)	SA	CI5(96)	14511731	
SM0418.S	M7256.D	M8153-P(2)	SA	CI5(96)	13546422	
SM0418.S	M7257.D	M8154-P(2)	SA	CI5(96)	12851167	
SM0418.S	M7258.D	M8155-P(2)	SA	CI5(96)	12441652	
SM0418.S	M7259.D	M8167-P(2)	SA	CI5(96)	15537356	
SM0418.S	M7260.D	M8167DUP-P(2)	QADU	CI5(96)	17019126	
SM0418.S	M7261.D	M8356-P(2)	SA	CI5(96)	19012656	
SM0418.S	M7262.D	M8357-P(2)	SA	CI5(96)	16071084	
SM0418.S	M7263.D	IE07	CCV	CI5(96)	16568807	
SM0418.S	M7264.D	M8360-P(2)	SA	CI5(96)	12106572	
SM0418.S	M7265.D	M8361-P(2)	SA	CI5(96)	16526564	
SM0418.S	M7266.D	M8362-P(2)	SA	CI5(96)	12375657	
SM0418.S	M7267.D	M8363-P(2)	SA	CI5(96)	13728083	
SM0418.S	M7268.D	M8368-P(2)	SA	CI5(96)	16355129	
SM0418.S	M7269.D	M8369-P(2)	SA	CI5(96)	15394826	
SM0418.S	M7270.D	M8370-P(2)	SA	CI5(96)	18282342	
SM0418.S	M7271.D	M8387-P(2)	SA	CI5(96)	14120078	
SM0418.S	M7272.D	M8387MS-P(0)	MS	CI5(96)	13782385	
SM0418.S	M7273.D	M8387MSD-P(0)	MSD	CI5(96)	13686861	
SM0418.S	M7274.D	IE08	CCV	CI5(96)	18505949	
SM0418.S	M7274A.D	M8400-P(2)	SA	CI5(96)	17718049	
SM0418.S	M7274B.D	M8401-P(2)	SA	CI5(96)	18887710	
SM0418.S	M7274D.D	M8404-P(2)	SA	CI5(96)	13258912	
SM0418.S	M7274E.D	M8405-P(2)	SA	CI5(96)	13318212	
SM0418.S	M7274F.D	M8400-P-D(4)	SA	CI5(96)	16725519	
SM0418.S	M7274G.D	M8401-P-D(4)	SA	CI5(96)	17239597	
SM0418.S	M7274H.D	M8402-P-D(4)	SA	CI5(96)	25778192	
SM0418.S	M7274I.D	M8404-P-D(4)	SA	CI5(96)	17180000	



The Business of Innovation

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0418.S	M7274J.D	M8405-P-D(4)	SA	CI5(96)	15400055	
SM0418.S	M7274K.D	IE07	CCV	CI5(96)	16037807	
SM0418.S	M7275.D	M8152-P-D(4)	SA	CI5(96)	14052605	
SM0418.S	M7276.D	M8153-P-D(4)	SA	CI5(96)	15867156	
SM0418.S	M7277.D	M8154-P-D(4)	SA	CI5(96)	14300558	
SM0418.S	M7278.D	M8155-P-D(4)	SA	CI5(96)	14612568	
SM0418.S	M7281.D	M8356-P-D(4)	SA	CI5(96)	14517179	
SM0418.S	M7282.D	M8357-P-D(4)	SA	CI5(96)	16252217	
SM0418.S	M7283.D	M8360-P-D(4)	SA	CI5(96)	15128658	
SM0418.S	M7284.D	M8361-P-D(4)	SA	CI5(96)	15340131	
SM0418.S	M7285.D	IE07	CCV	CI5(96)	19063819	
SM0418.S	M7286.D	M8362-P-D(4)	SA	CI5(96)	14963886	
SM0418.S	M7287.D	M8363-P-D(4)	SA	CI5(96)	15614619	
SM0418.S	M7288.D	M8368-P-D(4)	SA	CI5(96)	15871908	
SM0418.S	M7289.D	M8369-P-D(4)	SA	CI5(96)	14761140	
SM0418.S	M7290.D	M8370-P-D(4)	SA	CI5(96)	15166553	
SM0418.S	M7292.D	IE08	CCV	CI5(96)	17840261	
SM0419.S	M7325.D	IE07	CCV	CI5(96)	17137537	
SM0419.S	M7326.D	M8152-P-D(5)	SA	CI5(96)	15194168	
SM0419.S	M7327.D	M8153-P-D(5)	SA	CI5(96)	14969586	
SM0419.S	M7328.D	M8154-P-D(5)	SA	CI5(96)	15313576	
SM0419.S	M7329.D	M8155-P-D(5)	SA	CI5(96)	14533596	
SM0419.S	M7330.D	M8356-P-D(5)	SA	CI5(96)	14948996	
SM0419.S	M7331.D	M8357-P-D(5)	SA	CI5(96)	15083826	
SM0419.S	M7332.D	M8368-P-D(5)	SA	CI5(96)	15093250	
SM0419.S	M7333.D	M8369-P-D(5)	SA	CI5(96)	15506392	
SM0419.S	M7334.D	M8370-P-D(5)	SA	CI5(96)	15005989	
SM0419.S	M7335.D	M8400-P-D(5)	SA	CI5(96)	15428932	
SM0419.S	M7336.D	IE08	CCV	CI5(96)	19242427	
SM0419.S	M7337.D	M8401-P-D(5)	SA	CI5(96)	16535400	
SM0419.S	M7338.D	M8402-P-D(5)	SA	CI5(96)	16322694	
SM0419.S	M7339.D	M8404-P-D(5)	SA	CI5(96)	15509030	
SM0419.S	M7340.D	M8405-P-D(5)	SA	CI5(96)	16042110	
SM0419.S	M7341.D	IE07	CCV	CI5(96)	17098743	
SM0420.S	M7364.D	IE07	CCV	CI5(96)	13978204	
SM0420.S	M7365.D	M8402-P-D(7)	SA	CI5(96)	11702570	
SM0420.S	M7366.D	IE08	CCV	CI5(96)	14899100	
SM0424.S	M7603.D	IE07	CCV	CI5(96)	19118951	
SM0424.S	M7613.D	M8363-P-D(5)	SA	CI5(96)	15556028	
SM0424.S	M7614.D	IE08	CCV	CI5(96)	20391286	



The Business of Innovation

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	28199596
SM0417.S	M7207.D	IE05	CS	Cl6(161)	27129752
SM0417.S	M7208.D	IE06	CS	Cl6(161)	29503850
SM0417.S	M7209.D	IE07	CS	Cl6(161)	34497986
SM0417.S	M7210.D	IE08	CS	Cl6(161)	34872167
SM0417.S	M7212.D	IE10	CS	Cl6(161)	28894537

L3 29503850
 (+) 59007699
 (-) 14751925

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	30447371	
SM0418.S	M7252.D	IE08	CCV	Cl6(161)	30692359	
SM0418.S	M7253.D	CD580PB-P(0)	PB	Cl6(161)	29611578	
SM0418.S	M7254.D	CD581LCS-P(0)	LCS	Cl6(161)	27061528	
SM0418.S	M7255.D	M8152-P(2)	SA	Cl6(161)	22817839	
SM0418.S	M7256.D	M8153-P(2)	SA	Cl6(161)	18882860	
SM0418.S	M7257.D	M8154-P(2)	SA	Cl6(161)	19706908	
SM0418.S	M7258.D	M8155-P(2)	SA	Cl6(161)	19123017	
SM0418.S	M7259.D	M8167-P(2)	SA	Cl6(161)	35992629	
SM0418.S	M7260.D	M8167DUP-P(2)	QADU	Cl6(161)	38749000	
SM0418.S	M7261.D	M8356-P(2)	SA	Cl6(161)	21270500	
SM0418.S	M7262.D	M8357-P(2)	SA	Cl6(161)	22120995	
SM0418.S	M7263.D	IE07	CCV	Cl6(161)	37993668	
SM0418.S	M7264.D	M8360-P(2)	SA	Cl6(161)	23766636	
SM0418.S	M7265.D	M8361-P(2)	SA	Cl6(161)	37193038	
SM0418.S	M7266.D	M8362-P(2)	SA	Cl6(161)	25520812	
SM0418.S	M7267.D	M8363-P(2)	SA	Cl6(161)	22093566	
SM0418.S	M7268.D	M8368-P(2)	SA	Cl6(161)	20039548	
SM0418.S	M7269.D	M8369-P(2)	SA	Cl6(161)	22688283	
SM0418.S	M7270.D	M8370-P(2)	SA	Cl6(161)	21393245	
SM0418.S	M7271.D	M8387-P(2)	SA	Cl6(161)	33224675	
SM0418.S	M7272.D	M8387MS-P(0)	MS	Cl6(161)	31704327	
SM0418.S	M7273.D	M8387MSD-P(0)	MSD	Cl6(161)	31391845	
SM0418.S	M7274.D	IE08	CCV	Cl6(161)	45692334	
SM0418.S	M7274A.D	M8400-P(2)	SA	Cl6(161)	22703015	
SM0418.S	M7274B.D	M8401-P(2)	SA	Cl6(161)	21321835	
SM0418.S	M7274D.D	M8404-P(2)	SA	Cl6(161)	21017691	
SM0418.S	M7274E.D	M8405-P(2)	SA	Cl6(161)	22281197	
SM0418.S	M7274F.D	M8400-P-D(4)	SA	Cl6(161)	40197084	
SM0418.S	M7274G.D	M8401-P-D(4)	SA	Cl6(161)	40703958	
SM0418.S	M7274H.D	M8402-P-D(4)	SA	Cl6(161)	32087613	
SM0418.S	M7274I.D	M8404-P-D(4)	SA	Cl6(161)	39175001	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417B.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0418.S	M7274J.D	M8405-P-D(4)	SA	Cl6(161)	34738680	
SM0418.S	M7274K.D	IE07	CCV	Cl6(161)	38634922	
SM0418.S	M7275.D	M8152-P-D(4)	SA	Cl6(161)	33291203	
SM0418.S	M7276.D	M8153-P-D(4)	SA	Cl6(161)	38113503	
SM0418.S	M7277.D	M8154-P-D(4)	SA	Cl6(161)	32571241	
SM0418.S	M7278.D	M8155-P-D(4)	SA	Cl6(161)	33562683	
SM0418.S	M7281.D	M8356-P-D(4)	SA	Cl6(161)	31795320	
SM0418.S	M7282.D	M8357-P-D(4)	SA	Cl6(161)	33831910	
SM0418.S	M7283.D	M8360-P-D(4)	SA	Cl6(161)	36734170	
SM0418.S	M7284.D	M8361-P-D(4)	SA	Cl6(161)	35625740	
SM0418.S	M7285.D	IE07	CCV	Cl6(161)	46796149	
SM0418.S	M7286.D	M8362-P-D(4)	SA	Cl6(161)	34699727	
SM0418.S	M7287.D	M8363-P-D(4)	SA	Cl6(161)	35348992	
SM0418.S	M7288.D	M8368-P-D(4)	SA	Cl6(161)	37391478	
SM0418.S	M7289.D	M8369-P-D(4)	SA	Cl6(161)	34597478	
SM0418.S	M7290.D	M8370-P-D(4)	SA	Cl6(161)	35188862	
SM0418.S	M7292.D	IE08	CCV	Cl6(161)	41573042	
SM0419.S	M7325.D	IE07	CCV	Cl6(161)	43563283	
SM0419.S	M7326.D	M8152-P-D(5)	SA	Cl6(161)	35447285	
SM0419.S	M7327.D	M8153-P-D(5)	SA	Cl6(161)	36607115	
SM0419.S	M7328.D	M8154-P-D(5)	SA	Cl6(161)	36886426	
SM0419.S	M7329.D	M8155-P-D(5)	SA	Cl6(161)	33301359	
SM0419.S	M7330.D	M8356-P-D(5)	SA	Cl6(161)	36016798	
SM0419.S	M7331.D	M8357-P-D(5)	SA	Cl6(161)	36224030	
SM0419.S	M7332.D	M8368-P-D(5)	SA	Cl6(161)	35486816	
SM0419.S	M7333.D	M8369-P-D(5)	SA	Cl6(161)	36969050	
SM0419.S	M7334.D	M8370-P-D(5)	SA	Cl6(161)	34778869	
SM0419.S	M7335.D	M8400-P-D(5)	SA	Cl6(161)	36527958	
SM0419.S	M7336.D	IE08	CCV	Cl6(161)	44008527	
SM0419.S	M7337.D	M8401-P-D(5)	SA	Cl6(161)	38967966	
SM0419.S	M7338.D	M8402-P-D(5)	SA	Cl6(161)	38141330	
SM0419.S	M7339.D	M8404-P-D(5)	SA	Cl6(161)	36256897	
SM0419.S	M7340.D	M8405-P-D(5)	SA	Cl6(161)	38881919	
SM0419.S	M7341.D	IE07	CCV	Cl6(161)	42059798	
SM0420.S	M7364.D	IE07	CCV	Cl6(161)	33572612	
SM0420.S	M7365.D	M8402-P-D(7)	SA	Cl6(161)	26308241	
SM0420.S	M7366.D	IE08	CCV	Cl6(161)	33015851	
SM0424.S	M7603.D	IE07	CCV	Cl6(161)	46749872	
SM0424.S	M7613.D	M8363-P-D(5)	SA	Cl6(161)	37851303	
SM0424.S	M7614.D	IE08	CCV	Cl6(161)	47356837	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417F.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl5(96)	2038180
SM0417.S	M7207.D	IE05	CS	Cl5(96)	2103011
SM0417.S	M7208.D	IE06	CS	Cl5(96)	2225995
SM0417.S	M7209.D	IE07	CS	Cl5(96)	2400478
SM0417.S	M7210.D	IE08	CS	Cl5(96)	2523572
SM0417.S	M7212.D	IE10	CS	Cl5(96)	2539311

L3 2225995
 (+) 4451990
 (-) 1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl5(96)	2508888	
SM0418.S	M7252.D	IE08	CCV	Cl5(96)	2503423	
SM0418.S	M7253.D	CD580PB-P(0)	PB	Cl5(96)	2558363	
SM0418.S	M7254.D	CD581LCS-P(0)	LCS	Cl5(96)	2768412	
SM0418.S	M7259.D	M8167-P(2)	SA	Cl5(96)	3596020	
SM0418.S	M7260.D	M8167DUP-P(2)	QADU	Cl5(96)	3374379	
SM0418.S	M7263.D	IE07	CCV	Cl5(96)	3503800	
SM0418.S	M7266.D	M8362-P(2)	SA	Cl5(96)	2960462	
SM0418.S	M7271.D	M8387-P(2)	SA	Cl5(96)	3096478	
SM0418.S	M7272.D	M8387MS-P(0)	MS	Cl5(96)	2881746	
SM0418.S	M7273.D	M8387MSD-P(0)	MSD	Cl5(96)	3284342	
SM0418.S	M7274.D	IE08	CCV	Cl5(96)	3425966	
SM0418.S	M7274F.D	M8400-P-D(4)	SA	Cl5(96)	3575964	
SM0418.S	M7274G.D	M8401-P-D(4)	SA	Cl5(96)	3061896	
SM0418.S	M7274I.D	M8404-P-D(4)	SA	Cl5(96)	3564547	
SM0418.S	M7274J.D	M8405-P-D(4)	SA	Cl5(96)	3234848	
SM0418.S	M7274K.D	IE07	CCV	Cl5(96)	3219252	
SM0418.S	M7275.D	M8152-P-D(4)	SA	Cl5(96)	3406914	
SM0418.S	M7276.D	M8153-P-D(4)	SA	Cl5(96)	3482089	
SM0418.S	M7277.D	M8154-P-D(4)	SA	Cl5(96)	3506862	
SM0418.S	M7278.D	M8155-P-D(4)	SA	Cl5(96)	3113555	
SM0418.S	M7281.D	M8356-P-D(4)	SA	Cl5(96)	3540995	
SM0418.S	M7282.D	M8357-P-D(4)	SA	Cl5(96)	3728203	
SM0418.S	M7283.D	M8360-P-D(4)	SA	Cl5(96)	3458013	
SM0418.S	M7284.D	M8361-P-D(4)	SA	Cl5(96)	2992240	
SM0418.S	M7285.D	IE07	CCV	Cl5(96)	3582175	
SM0418.S	M7287.D	M8363-P-D(4)	SA	Cl5(96)	3086995	
SM0418.S	M7288.D	M8368-P-D(4)	SA	Cl5(96)	3435517	
SM0418.S	M7289.D	M8369-P-D(4)	SA	Cl5(96)	3486398	
SM0418.S	M7290.D	M8370-P-D(4)	SA	Cl5(96)	3611020	
SM0418.S	M7292.D	IE08	CCV	Cl5(96)	3887025	
SM0420.S	M7364.D	IE07	CCV	Cl5(96)	2944764	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417F.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0420.S	M7365.D	M8402-P-D(7)	SA	CI5(96)	2245288	
SM0420.S	M7366.D	IE08	CCV	CI5(96)	2882190	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417F.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12872032
SM0417.S	M7207.D	IE05	CS	CI5(96)	13386960
SM0417.S	M7208.D	IE06	CS	CI5(96)	13612237
SM0417.S	M7209.D	IE07	CS	CI5(96)	14869473
SM0417.S	M7210.D	IE08	CS	CI5(96)	15494530
SM0417.S	M7212.D	IE10	CS	CI5(96)	15194166

L3 13612237
 (+) 27224474
 (-) 6806118

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13936712	
SM0418.S	M7252.D	IE08	CCV	CI5(96)	13786769	
SM0418.S	M7253.D	CD580PB-P(0)	PB	CI5(96)	14176081	
SM0418.S	M7254.D	CD581LCS-P(0)	LCS	CI5(96)	13871209	
SM0418.S	M7259.D	M8167-P(2)	SA	CI5(96)	15625241	
SM0418.S	M7260.D	M8167DUP-P(2)	QADU	CI5(96)	17007082	
SM0418.S	M7263.D	IE07	CCV	CI5(96)	16567909	
SM0418.S	M7266.D	M8362-P(2)	SA	CI5(96)	12375657	
SM0418.S	M7271.D	M8387-P(2)	SA	CI5(96)	14299959	
SM0418.S	M7272.D	M8387MS-P(0)	MS	CI5(96)	13714712	
SM0418.S	M7273.D	M8387MSD-P(0)	MSD	CI5(96)	13812909	
SM0418.S	M7274.D	IE08	CCV	CI5(96)	18214041	
SM0418.S	M7274F.D	M8400-P-D(4)	SA	CI5(96)	16725519	
SM0418.S	M7274G.D	M8401-P-D(4)	SA	CI5(96)	17016023	
SM0418.S	M7274I.D	M8404-P-D(4)	SA	CI5(96)	16416173	
SM0418.S	M7274J.D	M8405-P-D(4)	SA	CI5(96)	15400055	
SM0418.S	M7274K.D	IE07	CCV	CI5(96)	16073399	
SM0418.S	M7275.D	M8152-P-D(4)	SA	CI5(96)	15026665	
SM0418.S	M7276.D	M8153-P-D(4)	SA	CI5(96)	15771960	
SM0418.S	M7277.D	M8154-P-D(4)	SA	CI5(96)	14149338	
SM0418.S	M7278.D	M8155-P-D(4)	SA	CI5(96)	14629868	
SM0418.S	M7281.D	M8356-P-D(4)	SA	CI5(96)	14451610	
SM0418.S	M7282.D	M8357-P-D(4)	SA	CI5(96)	16127020	
SM0418.S	M7283.D	M8360-P-D(4)	SA	CI5(96)	15128658	
SM0418.S	M7284.D	M8361-P-D(4)	SA	CI5(96)	15236400	
SM0418.S	M7285.D	IE07	CCV	CI5(96)	18940266	
SM0418.S	M7287.D	M8363-P-D(4)	SA	CI5(96)	15668119	
SM0418.S	M7288.D	M8368-P-D(4)	SA	CI5(96)	15574293	
SM0418.S	M7289.D	M8369-P-D(4)	SA	CI5(96)	14870318	
SM0418.S	M7290.D	M8370-P-D(4)	SA	CI5(96)	15106152	
SM0418.S	M7292.D	IE08	CCV	CI5(96)	17874408	
SM0420.S	M7364.D	IE07	CCV	CI5(96)	13887062	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0493

METHOD: MM0417F.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0420.S	M7365.D	M8402-P-D(7)	SA	CI5(96)	11672286	
SM0420.S	M7366.D	IE08	CCV	CI5(96)	15017810	

BATTELLE - DUXBURY OPERATIONS SAMPLE PREPARATION RECORDS

<u>Project Title(s)</u>	<u>Project No.(s)</u>
USACE/NAE - New Bedford Harbor LTM Study	100053747
14-0493	
USACE-NAE New Bedford Harbor LTM Study	
SED	
SOP Numbers (see workplan for modifications)	
ExtractionSOP No.	5-192
CleanupSOP No.	5-327
CleanupSOP No.	5-328

This Batch Contains The Following Samples:				
CD580PB-P	M8167-P	M8362-P	M8387MS-P	M8405-P
CD581LCS-P	M8167DUP-P	M8363-P	M8387MSD-P	
M8152-P	M8356-P	M8368-P	M8400-P	
M8153-P	M8357-P	M8369-P	M8401-P	
M8154-P	M8360-P	M8370-P	M8402-P	
M8155-P	M8361-P	M8387-P	M8404-P	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Samuel Guimaraes

Approved By:	Date	Initials
Samuel Guimaraes	11/17/2014	SG

BATTELLE - DUXBURY OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Requested On/By: 10/17/2014 SG	Purpose: Sample Preparation
Relinquished On/By: 10/17/2014 SAH	Last Activity: Return
Accepted On/By: 10/17/2014 SG	Returned On/To: 10/17/2014 MDS
Stored In Facility: Sample Preparation	Returned To Facility: Custody: NA
Stored Until: 10/17/2014	
Stored Comment: NA	Returned Comment: NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	M8152	1	--	Intact	NA
2	M8153	1	--	Intact	NA
3	M8154	1	--	Intact	NA
4	M8155	1	--	Intact	NA
5	M8167	1	--	Intact	NA
6	M8356	1	--	Intact	NA
7	M8357	1	--	Intact	NA
8	M8360	1	--	Intact	NA
9	M8361	1	--	Intact	NA
10	M8362	1	--	Intact	NA
11	M8363	1	--	Intact	NA
12	M8368	1	--	Intact	NA
13	M8369	1	--	Intact	NA
14	M8370	1	--	Intact	NA
15	M8387	1	--	Intact	NA
16	M8400	1	--	Intact	NA
17	M8401	1	--	Intact	NA
18	M8402	1	--	Intact	NA
19	M8404	1	--	Intact	NA
20	M8405	1	--	Intact	NA
Total Samples		20		* "C" = Consumed Container	

BATTELLE - DUXBURY OPERATIONS SAMPLE IDENTIFICATION PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Description
CD580PB-P	Procedural Blank
CD581LCS-P	Laboratory Control Sample
M8152-P	NBH14-0001
M8153-P	NBH14-0005
M8154-P	NBH14-0009
M8155-P	NBH14-0013
M8167-P	NBH14-0065
M8167DUP-P	Lab Duplicate of NBH14-0065
M8356-P	NBH14-0207
M8357-P	NBH14-0211
M8360-P	NBH14-0220
M8361-P	NBH14-0224
M8362-P	NBH14-0228
M8363-P	NBH14-0232
M8368-P	NBH14-0245
M8369-P	NBH14-0249
M8370-P	NBH14-0253
M8387-P	NBH14-0101
M8387MS-P	Matrix Spike of NBH14-0101
M8387MSD-P	Matrix Spike Duplicate of NBH14-0101
M8400-P	NBH14-0153

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

**BATTELLE - DUXBURY OPERATIONS
SAMPLE IDENTIFICATION PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Description
M8401-P	NBH14-0157
M8402-P	NBH14-0161
M8404-P	NBH14-0169
M8405-P	NBH14-0173

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CD580PB-P	NA	--	NA	NA	NA	10.17	90.25	9.75	9.18
CD581LCS-P	NA	--	NA	NA	NA	10.87	90.25	9.75	9.81
M8152-P	1	--	1.09	2.09	1.99	0.98	90.00	10.00	0.88
M8153-P	1	--	1.09	3.09	2.97	1.01	94.00	6.00	0.95
M8154-P	1	--	1.10	3.10	3.07	1.00	98.50	1.50	0.99
M8155-P	1	--	1.11	3.11	2.81	1.00	85.00	15.00	0.85
M8167-P	1	--	1.12	3.06	3.04	1.00	98.97	1.03	0.99
M8167DUP-P	1	--	1.10	3.06	3.05	1.01	99.49	0.51	1.00
M8356-P	1	--	1.12	3.09	2.86	1.02	88.32	11.68	0.90
M8357-P	1	--	1.11	3.10	2.86	1.06	87.94	12.06	0.93
M8360-P	1	--	1.10	3.06	2.63	1.05	78.06	21.94	0.82
M8361-P	1	--	1.10	3.26	3.24	1.11	99.07	0.93	1.10
M8362-P	1	--	1.10	3.02	2.64	1.08	80.21	19.79	0.87
M8363-P	1	--	1.10	3.10	3.03	1.00	96.50	3.50	0.97
M8368-P	1	--	1.12	3.18	2.73	1.00	78.16	21.84	0.78
M8369-P	1	--	1.10	3.08	2.86	0.99	88.89	11.11	0.88
M8370-P	1	--	1.13	3.36	3.26	1.01	95.52	4.48	0.96
M8387-P	1	--	1.11	3.35	3.34	10.06	99.55	0.45	10.01
M8387MS-P	1	--	1.10	3.13	3.13	5.01	100.00	0.00	5.01
M8387MSD-P	1	--	1.12	3.18	3.17	5.00	99.51	0.49	4.98
M8400-P	1	--	1.10	3.13	2.45	1.04	66.50	33.50	0.69
M8401-P	1	--	1.12	3.05	2.99	1.01	96.89	3.11	0.98
M8402-P	1	--	1.12	3.18	3.12	1.01	97.09	2.91	0.98

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
M8404-P	1	--	1.10	3.24	3.00	1.03	88.79	11.21	0.91
M8405-P	1	--	1.13	3.18	3.12	1.02	97.07	2.93	0.99

Validation of: Wet Wt.	Performed: 11/17/14 SG
----------------------------------	----------------------------------

Sample ID:	Comments:	Reference:
CD580PB-P	Average of percent dry weights from authentic samples in Batch No. 14-0493 USACE-NAE New Bedford Harbor LTM Study	NA
CD581LCS-P	Average of percent dry weights from authentic samples in Batch No. 14-0493 USACE-NAE New Bedford Harbor LTM Study	NA

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CD580PB-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
CD581LCS-P	HX10	LCS/MS	7	75	10/20/14 SG	SAH	NA
CD581LCS-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8152-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8153-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8154-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8155-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8167-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8167DUP-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8356-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8357-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8360-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8361-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8362-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8363-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8368-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8369-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8370-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8387-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8387MS-P	HX10	LCS/MS	7	125	10/20/14 SG	SAH	NA
M8387MS-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8387MSD-P	HX10	LCS/MS	7	125	10/20/14 SG	SAH	NA
M8387MSD-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8400-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8401-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8402-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA

BATTELLE - DUXBURY OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
M8404-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA
M8405-P	ID59	SIS	3	400	10/20/14 SG	SAH	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
HX10	Pipette	G0400231B
ID59	Pipette	B1100330B



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
SAMPLE EXTRACTION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
CD580PB-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
CD581LCS-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8152-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8153-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8154-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8155-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8167-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8167DUP-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8356-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8357-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8360-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8361-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8362-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8363-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8368-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8369-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8370-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8387-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8387MS-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8387MSD-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8400-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8401-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8402-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8404-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA
M8405-P	10/20/14 SG	10/20/14 SG	10/20/14 SG	NA	NA	64	NA

BATTELLE - DUXBURY OPERATIONS SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
-----------	------------------	-------------------	------------------	----------	-----------	-------	---------

Reagents:

Name	Expires	Lot No	Procedure	Comments
Sodium Sulfate	11/04/14	0000081084	Muffled at 400 °C for more than 4 hours. Expiration date changed from original after reagent was consumed.	

Solvents:

Name	Lot No	Comments
DCM	0000080772	
Hexane	0000059691	Samples solvent exchanged during concentration.



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT CLEANUP FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
CD580PB-P(0)	10/23/14	SG	NA
CD581LCS-P(0)	10/23/14	SG	NA
M8152-P(0)	10/23/14	SG	NA
M8153-P(0)	10/23/14	SG	NA
M8154-P(0)	10/23/14	SG	NA
M8155-P(0)	10/23/14	SG	NA
M8167-P(0)	10/23/14	SG	NA
M8167DUP-P(0)	10/23/14	SG	NA
M8356-P(0)	10/23/14	SG	NA
M8357-P(0)	10/23/14	SG	NA
M8360-P(0)	10/23/14	SG	NA
M8361-P(0)	10/23/14	SG	NA
M8362-P(0)	10/23/14	SG	NA
M8363-P(0)	10/23/14	SG	NA
M8368-P(0)	10/23/14	SG	NA
M8369-P(0)	10/23/14	SG	NA
M8370-P(0)	10/23/14	SG	NA
M8387-P(0)	10/23/14	SG	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT CLEANUP FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
M8387MS-P(0)	10/23/14	SG	NA
M8387MSD-P(0)	10/23/14	SG	NA
M8400-P(0)	10/23/14	SG	NA
M8401-P(0)	10/23/14	SG	NA
M8402-P(0)	10/23/14	SG	NA
M8404-P(0)	10/23/14	SG	NA
M8405-P(0)	10/23/14	SG	NA

Cleanup:

Copper Cleanup

Reagents:

Name	Expires	Lot No	Procedure
Activated Copper	10/23/14	MKBN5574V	Activated according to Cleanup SOP (5-328)

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
CD580PB-P(0)	10/22/14	SG	NA
CD581LCS-P(0)	10/22/14	SG	NA
M8152-P(0)	10/22/14	SG	NA
M8153-P(0)	10/22/14	SG	NA
M8154-P(0)	10/22/14	SG	NA
M8155-P(0)	10/22/14	SG	NA
M8167-P(0)	10/22/14	SG	NA
M8167DUP-P(0)	10/22/14	SG	NA
M8356-P(0)	10/22/14	SG	NA
M8357-P(0)	10/22/14	SG	NA
M8360-P(0)	10/22/14	SG	NA
M8361-P(0)	10/22/14	SG	NA
M8362-P(0)	10/22/14	SG	NA
M8363-P(0)	10/22/14	SG	NA
M8368-P(0)	10/22/14	SG	NA
M8369-P(0)	10/22/14	SG	NA
M8370-P(0)	10/22/14	SG	NA

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
M8387-P(0)	10/22/14	SG	NA
M8387MS-P(0)	10/22/14	SG	NA
M8387MSD-P(0)	10/22/14	SG	NA
M8400-P(0)	10/22/14	SG	NA
M8401-P(0)	10/22/14	SG	NA
M8402-P(0)	10/22/14	SG	NA
M8404-P(0)	10/22/14	SG	NA
M8405-P(0)	10/22/14	SG	NA

Column Diameter: 13 mm **Procedure Comment:**

Elution Volume: 15 mL

Solvents

Name	Lot No
Hexane	0000059693

Reagents

Weight g	Name	Expires	Lot No	Procedure
1.00	Florisil	10/22/14	796462-1991484	Baked at 110 °C for more than 24 hours (SPE columns not baked)
1.00	Florisil	10/22/14	BCBN3313V	Baked at 110 °C for more than 24 hours (SPE columns not baked)

Fractions

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CD580PB-P	0	--	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
CD581LCS-P	0	--	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8152-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8152-P	2	--	10/24/2014 10:45:00 AM	M8152-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8152-P-D	3	C	10/24/2014 10:45:00 AM	M8152-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8152-P-D	4	--	10/24/2014 10:50:00 AM	M8152-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8152-P-D	5	--	10/24/2014 10:50:00 AM	M8152-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8153-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8153-P	2	--	10/24/2014 10:45:00 AM	M8153-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8153-P-D	3	C	10/24/2014 10:45:00 AM	M8153-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8153-P-D	4	--	10/24/2014 10:50:00 AM	M8153-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8153-P-D	5	--	10/24/2014 10:50:00 AM	M8153-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8154-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8154-P	2	--	10/24/2014 10:45:00 AM	M8154-P	0	1000	950	1.053	1.053	10/24/14 DMS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8154-P-D	3	C	10/24/2014 10:45:00 AM	M8154-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8154-P-D	4	--	10/24/2014 10:50:00 AM	M8154-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8154-P-D	5	--	10/24/2014 10:50:00 AM	M8154-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8155-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8155-P	2	--	10/24/2014 10:45:00 AM	M8155-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8155-P-D	3	C	10/24/2014 10:45:00 AM	M8155-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8155-P-D	4	--	10/24/2014 10:50:00 AM	M8155-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8155-P-D	5	--	10/24/2014 10:50:00 AM	M8155-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8167-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8167-P	2	--	10/24/2014 10:45:00 AM	M8167-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8167-P-D	3	C	10/24/2014 10:45:00 AM	M8167-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8167-P-D	4	--	10/24/2014 10:50:00 AM	M8167-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8167-P-D	5	--	10/24/2014 10:50:00 AM	M8167-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8167DUP-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8167DUP-P	2	--	10/24/2014 10:45:00 AM	M8167DUP-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8167DUP-P-D	3	C	10/24/2014 10:45:00 AM	M8167DUP-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8167DUP-P-D	4	--	10/24/2014 10:50:00 AM	M8167DUP-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8167DUP-P-D	5	--	10/24/2014 10:50:00 AM	M8167DUP-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8356-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8356-P	2	--	10/24/2014 10:45:00 AM	M8356-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8356-P-D	3	C	10/24/2014 10:45:00 AM	M8356-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8356-P-D	4	--	10/24/2014 10:50:00 AM	M8356-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8356-P-D	5	--	10/24/2014 10:50:00 AM	M8356-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8357-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8357-P	2	--	10/24/2014 10:45:00 AM	M8357-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8357-P-D	3	C	10/24/2014 10:45:00 AM	M8357-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8357-P-D	4	--	10/24/2014 10:50:00 AM	M8357-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8357-P-D	5	--	10/24/2014 10:50:00 AM	M8357-P-D	3	1000	50	20.000	400.000	10/24/14 DMS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8360-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8360-P	2	--	10/24/2014 10:45:00 AM	M8360-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8360-P-D	3	C	10/24/2014 10:45:00 AM	M8360-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8360-P-D	4	--	10/24/2014 10:50:00 AM	M8360-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8360-P-D	5	--	10/24/2014 10:50:00 AM	M8360-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8361-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8361-P	2	--	10/24/2014 10:45:00 AM	M8361-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8361-P-D	3	C	10/24/2014 10:45:00 AM	M8361-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8361-P-D	4	--	10/24/2014 10:50:00 AM	M8361-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8361-P-D	5	--	10/24/2014 10:50:00 AM	M8361-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8362-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8362-P	2	--	10/24/2014 10:45:00 AM	M8362-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8362-P-D	3	C	10/24/2014 10:45:00 AM	M8362-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8362-P-D	4	--	10/24/2014 10:50:00 AM	M8362-P-D	3	1000	950	1.053	21.053	10/24/14 DMS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8362-P-D	5	--	10/24/2014 10:50:00 AM	M8362-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8363-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8363-P	2	--	10/24/2014 10:45:00 AM	M8363-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8363-P-D	3	C	10/24/2014 10:45:00 AM	M8363-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8363-P-D	4	--	10/24/2014 10:50:00 AM	M8363-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8363-P-D	5	--	10/24/2014 10:50:00 AM	M8363-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8368-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8368-P	2	--	10/24/2014 10:45:00 AM	M8368-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8368-P-D	3	C	10/24/2014 10:45:00 AM	M8368-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8368-P-D	4	--	10/24/2014 10:50:00 AM	M8368-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8368-P-D	5	--	10/24/2014 10:50:00 AM	M8368-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8369-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8369-P	2	--	10/24/2014 10:45:00 AM	M8369-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8369-P-D	3	C	10/24/2014 10:45:00 AM	M8369-P	0	1000	50	20.000	20.000	10/24/14 DMS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8369-P-D	4	--	10/24/2014 10:50:00 AM	M8369-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8369-P-D	5	--	10/24/2014 10:50:00 AM	M8369-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8370-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8370-P	2	--	10/24/2014 10:45:00 AM	M8370-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8370-P-D	3	C	10/24/2014 10:45:00 AM	M8370-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8370-P-D	4	--	10/24/2014 10:50:00 AM	M8370-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8370-P-D	5	--	10/24/2014 10:50:00 AM	M8370-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8387-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8387-P	2	--	10/24/2014 10:45:00 AM	M8387-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8387-P-D	3	C	10/24/2014 10:45:00 AM	M8387-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8387-P-D	4	--	10/24/2014 10:50:00 AM	M8387-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8387-P-D	5	--	10/24/2014 10:50:00 AM	M8387-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8387MS-P	0	--	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8387MSD-P	0	--	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8400-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8400-P	2	--	10/24/2014 10:45:00 AM	M8400-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8400-P-D	3	C	10/24/2014 10:45:00 AM	M8400-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8400-P-D	4	--	10/24/2014 10:50:00 AM	M8400-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8400-P-D	5	--	10/24/2014 10:50:00 AM	M8400-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8401-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8401-P	2	--	10/24/2014 10:45:00 AM	M8401-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8401-P-D	3	C	10/24/2014 10:45:00 AM	M8401-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8401-P-D	4	--	10/24/2014 10:50:00 AM	M8401-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8401-P-D	5	--	10/24/2014 10:50:00 AM	M8401-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8402-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8402-P	2	--	10/24/2014 10:45:00 AM	M8402-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8402-P-D	3	C	10/24/2014 10:45:00 AM	M8402-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8402-P-D	4	--	10/24/2014 10:50:00 AM	M8402-P-D	3	1000	950	1.053	21.053	10/24/14 DMS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8402-P-D	5	C	10/24/2014 10:50:00 AM	M8402-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8402-P-D	6	--	10/31/2014 10:25:00 AM	M8402-P-D	5	1000	900	1.111	444.444	10/31/14 RR
M8402-P-D	7	--	10/31/2014 10:25:00 AM	M8402-P-D	5	1000	100	10.000	4000.000	10/31/14 RR
M8404-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8404-P	2	--	10/24/2014 10:45:00 AM	M8404-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8404-P-D	3	C	10/24/2014 10:45:00 AM	M8404-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8404-P-D	4	--	10/24/2014 10:50:00 AM	M8404-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8404-P-D	5	--	10/24/2014 10:50:00 AM	M8404-P-D	3	1000	50	20.000	400.000	10/24/14 DMS
M8405-P	0	C	10/20/2014 12:30:00 PM	NA		NA	NA	1.000	1.000	10/20/14 SG
M8405-P	2	--	10/24/2014 10:45:00 AM	M8405-P	0	1000	950	1.053	1.053	10/24/14 DMS
M8405-P-D	3	C	10/24/2014 10:45:00 AM	M8405-P	0	1000	50	20.000	20.000	10/24/14 DMS
M8405-P-D	4	--	10/24/2014 10:50:00 AM	M8405-P-D	3	1000	950	1.053	21.053	10/24/14 DMS
M8405-P-D	5	--	10/24/2014 10:50:00 AM	M8405-P-D	3	1000	50	20.000	400.000	10/24/14 DMS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
CD580PB-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
CD581LCS-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8152-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8152-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8152-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8153-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8153-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8153-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8154-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8154-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8154-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8155-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8155-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8155-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8167-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8167-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8167-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8167DUP-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8167DUP-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
M8167DUP-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8356-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8356-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8356-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8357-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8357-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8357-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8360-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8360-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8360-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8361-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8361-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8361-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8362-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8362-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8362-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8363-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8363-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8363-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
M8368-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8368-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8368-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8369-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8369-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8369-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8370-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8370-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8370-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8387-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8387-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8387-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8387MS-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8387MSD-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8400-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8400-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8400-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8401-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8401-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8401-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8402-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8402-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8402-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8402-P-D(7)	910	90	IE11	100	1	1000	4000.000	10/31/14 RR	MRM
M8404-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8404-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8404-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS
M8405-P(0)	900	100	IE11	100	3	1000	1.000	10/24/14 DMS	MDS
M8405-P-D(3)	905	95	IE11	100	3	1000	20.000	10/24/14 DMS	MDS
M8405-P-D(5)	905	95	IE11	100	3	1000	400.000	10/24/14 DMS	MDS

Syringes/Pipettes Used:

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
SAMPLE SPECIFIC COMMENTS**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Comment:	Date/Initials:
CD580PB-P	NA	NA
CD581LCS-P	NA	NA
M8152-P	NA	NA
M8153-P	NA	NA
M8154-P	NA	NA
M8155-P	NA	NA
M8167-P	NA	NA
M8167DUP-P	NA	NA
M8356-P	NA	NA
M8357-P	NA	NA
M8360-P	NA	NA
M8361-P	NA	NA
M8362-P	NA	NA
M8363-P	NA	NA
M8368-P	NA	NA
M8369-P	NA	NA
M8370-P	NA	NA
M8387-P	NA	NA
M8387MS-P	NA	NA
M8387MSD-P	NA	NA
M8400-P	NA	NA
M8401-P	NA	NA
M8402-P	NA	NA
M8404-P	NA	NA
M8405-P	NA	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Purpose: GC/ECD TRANSFER	Last Activity: Prep->Inst
Relinquished On/By: Oct 24 2014 2:09PM DMS	Received On/By: Oct 24 2014 2:09PM RR
Relinquished From: Sample Preparation: NA	Received Location: Gas Storage: NA
Relinquish Comment: NA	Received Comment: NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CD580PB-P(0)	1000	1	Intact	NA
2	CD581LCS-P(0)	1000	1	Intact	NA
3	M8152-P(2)	1000	1.053	Intact	NA
4	M8152-P-D(4)	1000	21.053	Intact	NA
5	M8152-P-D(5)	1000	400	Intact	NA
6	M8153-P(2)	1000	1.053	Intact	NA
7	M8153-P-D(4)	1000	21.053	Intact	NA
8	M8153-P-D(5)	1000	400	Intact	NA
9	M8154-P(2)	1000	1.053	Intact	NA
10	M8154-P-D(4)	1000	21.053	Intact	NA
11	M8154-P-D(5)	1000	400	Intact	NA
12	M8155-P(2)	1000	1.053	Intact	NA
13	M8155-P-D(4)	1000	21.053	Intact	NA
14	M8155-P-D(5)	1000	400	Intact	NA
15	M8167-P(2)	1000	1.053	Intact	NA
16	M8167-P-D(4)	1000	21.053	Intact	NA
17	M8167-P-D(5)	1000	400	Intact	NA
18	M8167DUP-P(2)	1000	1.053	Intact	NA
19	M8167DUP-P-D(4)	1000	21.053	Intact	NA
20	M8167DUP-P-D(5)	1000	400	Intact	NA
21	M8356-P(2)	1000	1.053	Intact	NA
22	M8356-P-D(4)	1000	21.053	Intact	NA
23	M8356-P-D(5)	1000	400	Intact	NA
24	M8357-P(2)	1000	1.053	Intact	NA
25	M8357-P-D(4)	1000	21.053	Intact	NA
26	M8357-P-D(5)	1000	400	Intact	NA
27	M8360-P(2)	1000	1.053	Intact	NA
28	M8360-P-D(4)	1000	21.053	Intact	NA



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

29	M8360-P-D(5)	1000	400	Intact	NA
30	M8361-P(2)	1000	1.053	Intact	NA
31	M8361-P-D(4)	1000	21.053	Intact	NA
32	M8361-P-D(5)	1000	400	Intact	NA
33	M8362-P(2)	1000	1.053	Intact	NA
34	M8362-P-D(4)	1000	21.053	Intact	NA
35	M8362-P-D(5)	1000	400	Intact	NA
36	M8363-P(2)	1000	1.053	Intact	NA
37	M8363-P-D(4)	1000	21.053	Intact	NA
38	M8363-P-D(5)	1000	400	Intact	NA
39	M8368-P(2)	1000	1.053	Intact	NA
40	M8368-P-D(4)	1000	21.053	Intact	NA
41	M8368-P-D(5)	1000	400	Intact	NA
42	M8369-P(2)	1000	1.053	Intact	NA
43	M8369-P-D(4)	1000	21.053	Intact	NA
44	M8369-P-D(5)	1000	400	Intact	NA
45	M8370-P(2)	1000	1.053	Intact	NA
46	M8370-P-D(4)	1000	21.053	Intact	NA
47	M8370-P-D(5)	1000	400	Intact	NA
48	M8387-P(2)	1000	1.053	Intact	NA
49	M8387-P-D(4)	1000	21.053	Intact	NA
50	M8387-P-D(5)	1000	400	Intact	NA
51	M8387MS-P(0)	1000	1	Intact	NA
52	M8387MSD-P(0)	1000	1	Intact	NA
53	M8400-P(2)	1000	1.053	Intact	NA
54	M8400-P-D(4)	1000	21.053	Intact	NA
55	M8400-P-D(5)	1000	400	Intact	NA
56	M8401-P(2)	1000	1.053	Intact	NA
57	M8401-P-D(4)	1000	21.053	Intact	NA
58	M8401-P-D(5)	1000	400	Intact	NA
59	M8402-P(2)	1000	1.053	Intact	NA
60	M8402-P-D(4)	1000	21.053	Intact	NA
61	M8402-P-D(5)	1000	400	Intact	NA
62	M8404-P(2)	1000	1.053	Intact	NA
63	M8404-P-D(4)	1000	21.053	Intact	NA
64	M8404-P-D(5)	1000	400	Intact	NA
65	M8405-P(2)	1000	1.053	Intact	NA
66	M8405-P-D(4)	1000	21.053	Intact	NA

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

67	M8405-P-D(5)	1000	400	Intact	NA
Total Extracts:		67			
Purpose:		GC/ECD TRANSFER		Last Activity: Prep->Inst	
Relinquished On/By:		Oct 31 2014 10:27AM RR		Received On/By: Oct 31 2014 10:28AM RR	
Relinquished From:		GC Room: NA		Received Location: GC Laboratory: NA	
Relinquish Comment:		NA		Received Comment: NA	
No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	M8402-P-D(6)	1000	444.444	Intact	NA
2	M8402-P-D(7)	1000	4000	Intact	NA
Total Extracts:		2			

**BATTELLE - DUXBURY OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0493

USACE-NAE New Bedford Harbor LTM Study

SED

Entered By:

On:

Task Leader Approval:

On:

Supervisor Approval:

On:

PM Approval:

On:

INJECTION LOG

Directory I:\M\DATA\SM0417\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7203.D	HEXANE		10-20-2014 05:18 PM
2	2	M7204.D	HF94		10-20-2014 06:02 PM
3	3	M7205.D	IE03		10-20-2014 06:46 PM
4	4	M7206.D	IE04	Level not used.	10-20-2014 07:31 PM
5	5	M7207.D	IE05		10-20-2014 08:16 PM
6	6	M7208.D	IE06	RR 11/18/14	10-20-2014 09:00 PM
7	7	M7209.D	IE07		10-20-2014 09:45 PM
8	8	M7210.D	IE08		10-20-2014 10:29 PM
9	9	M7211.D	IE09	Level not used.	10-20-2014 11:14 PM
10	10	M7212.D	IE10		10-20-2014 11:58 PM
11	11	M7213.D	HY06 ICC		10-21-2014 12:43 AM
12	12	M7214.D	HF94		10-21-2014 01:28 AM
13	13	M7215.D	IE08 mid		10-21-2014 02:12 AM
14	14	M7216.D	CD598PB-P(3)	Procedural Blank 5-128 14	10-21-2014 02:57 AM
15	15	M7217.D	CD599LCS-P(5)	Laboratory Control Sample	10-21-2014 03:42 AM
16	16	M7218.D	CD600SRM-P(5)	Standard Reference Materi	10-21-2014 04:26 AM
17	17	M7219.D	M7754-P(5)	B537PreMnA 5-128 14-0498	10-21-2014 05:11 AM
18	18	M7220.D	M7755-P(5)	B537PreMnB 5-128 14-0498	10-21-2014 05:55 AM
19	19	M7221.D	M7756-P(5)	B537PreMnC 5-128 14-0498	10-21-2014 06:40 AM
20	20	M7222.D	M7756MS-P(5)	Matrix Spike of B537PreMn	10-21-2014 07:25 AM
21	21	M7223.D	M7756MSD-P(5)	Matrix Spike Duplicate of	10-21-2014 08:09 AM
22	22	M7224.D	M7757-P(5)	B537R01MnA 5-128 14-0498	10-21-2014 08:54 AM
23	23	M7225.D	M7758-P(5)	B537R01MnB 5-128 14-0498	10-21-2014 09:38 AM
24	24	M7226.D	HF94		10-21-2014 10:22 AM
25	25	M7227.D	IE08 mid		10-21-2014 11:07 AM
26	26	M7228.D	M7759-P(5)	B537R01MnC 5-128 14-0498	10-21-2014 11:52 AM
27	27	M7229.D	M7760-P(5)	B537R01MnD 5-128 14-0498	10-21-2014 12:36 PM
28	28	M7230.D	M7761-P(5)	B537R01MnE 5-128 14-0498	10-21-2014 01:21 PM
29	29	M7231.D	M7762-P(5)	B537S01MnA 5-128 14-0498	10-21-2014 02:05 PM
30	30	M7232.D	M7763-P(5)	B537S01MnB 5-128 14-0498	10-21-2014 02:50 PM
31	31	M7233.D	M7764-P(5)	B537S01MnC 5-128 14-0498	10-21-2014 03:35 PM
32	32	M7234.D	M7765-P(5)	B537S01MnD 5-128 14-0498	10-21-2014 04:19 PM
33	33	M7235.D	M7766-P(5)	B537S01MnE 5-128 14-0498	10-21-2014 05:04 PM
34	34	M7236.D	M7767-P(5)	B537S02MnA 5-128 14-0498	10-21-2014 05:48 PM
35	35	M7237.D	M7768-P(5)	B537S02MnB 5-128 14-0498	10-21-2014 06:33 PM
36	36	M7238.D	HF94		10-21-2014 07:17 PM
37	37	M7239.D	IE07 mid		10-21-2014 08:02 PM
38	38	M7240.D	M7768DUP-P(5)	Lab Duplicate of B537S02M	10-21-2014 08:46 PM
39	39	M7241.D	M7769-P(5)	B537S02MnC 5-128 14-0498	10-21-2014 09:31 PM
40	40	M7242.D	M7770-P(5)	B537S02MnD 5-128 14-0498	10-21-2014 10:16 PM
41	41	M7243.D	M7771-P(5)	B537S02MnE 5-128 14-0498	10-21-2014 11:00 PM
42	42	M7244.D	CD669PB-P(0)	Procedural Blank 5-128 14	10-21-2014 11:45 PM
43	43	M7245.D	CD670LCS-P(0)	Laboratory Control Sample	10-22-2014 12:29 AM
44	44	M7246.D	CD671LCS-D-P(0)	Laboratory Control Sample	10-22-2014 01:14 AM
45	45	M7247.D	M8926-P(0)	FLD20141014OSHCO-7-14-7E	10-22-2014 01:58 AM
46	46	M7248.D	M8928-P(0)	FSW20141014OSHCO-7-14-1 5	10-22-2014 02:43 AM
47	47	M7249.D	HF94		10-22-2014 03:28 AM
48	48	M7250.D	IE07 mid		10-22-2014 04:12 AM

INJECTION LOG

Directory I:\M\DATA\SM0418\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7251.D	HEXANE		10-26-2014 08:14 AM
2	2	M7252.D	IE08 mid		10-26-2014 08:58 AM
3	3	M7253.D	CD580PB-P(0)	Procedural Blank 5-128 14	10-26-2014 09:43 AM
4	4	M7254.D	CD581LCS-P(0)	Laboratory Control Sample	10-26-2014 10:27 AM
5	5	M7255.D	M8152-P(2)	NBH14-0001 5-128 14-0493	10-26-2014 11:12 AM
6	6	M7256.D	M8153-P(2)	NBH14-0005 5-128 14-0493	10-26-2014 11:56 AM
7	7	M7257.D	M8154-P(2)	NBH14-0009 5-128 14-0493	10-26-2014 12:41 PM
8	8	M7258.D	M8155-P(2)	NBH14-0013 5-128 14-0493	10-26-2014 01:25 PM
9	9	M7259.D	M8167-P(2)	NBH14-0065 5-128 14-0493	10-26-2014 02:10 PM
10	10	M7260.D	M8167DUP-P(2)	Lab Duplicate of NBH14-00	10-26-2014 02:55 PM
11	11	M7261.D	M8356-P(2)	NBH14-0207 5-128 14-0493	10-26-2014 03:39 PM
12	12	M7262.D	M8357-P(2)	NBH14-0211 5-128 14-0493	10-26-2014 04:24 PM
13	13	M7263.D	IE07 mid		10-26-2014 05:08 PM
14	14	M7264.D	M8360-P(2)	NBH14-0220 5-128 14-0493	10-26-2014 05:53 PM
15	15	M7265.D	M8361-P(2)	NBH14-0224 5-128 14-0493	10-26-2014 06:37 PM
16	16	M7266.D	M8362-P(2)	NBH14-0228 5-128 14-0493	10-26-2014 07:22 PM
17	17	M7267.D	M8363-P(2)	NBH14-0232 5-128 14-0493	10-26-2014 08:06 PM
18	18	M7268.D	M8368-P(2)	NBH14-0245 5-128 14-0493	10-26-2014 08:51 PM
19	19	M7269.D	M8369-P(2)	NBH14-0249 5-128 14-0493	10-26-2014 09:35 PM
20	20	M7270.D	M8370-P(2)	NBH14-0253 5-128 14-0493	10-26-2014 10:20 PM
21	21	M7271.D	M8387-P(2)	NBH14-0101 5-128 14-0493	10-26-2014 11:04 PM
22	22	M7272.D	M8387MS-P(0)	Matrix Spike of NBH14-010	10-26-2014 11:49 PM
23	23	M7273.D	M8387MSD-P(0)	Matrix Spike Duplicate of	10-27-2014 12:34 AM
24	24	M7274.D	IE08 mid		10-27-2014 01:18 AM
25	43	M7274A.D	M8400-P(2)	NBH14-0153 5-128 14-0493	10-27-2014 02:03 AM
26	44	M7274B.D	M8401-P(2)	NBH14-0157 5-128 14-0493	10-27-2014 02:48 AM
27	45	M7274C.D	M8402-P(2)	NBH14-0161 5-128 14-0493	10-27-2014 03:33 AM
28	46	M7274D.D	M8404-P(2)	NBH14-0169 5-128 14-0493	10-27-2014 04:18 AM
29	47	M7274E.D	M8405-P(2)	NBH14-0173 5-128 14-0493	10-27-2014 05:03 AM
30	48	M7274F.D	M8400-P-D(4)	NBH14-0153 5-128 14-0493	10-27-2014 05:47 AM
31	49	M7274G.D	M8401-P-D(4)	NBH14-0157 5-128 14-0493	10-27-2014 06:32 AM
32	50	M7274H.D	M8402-P-D(4)	NBH14-0161 5-128 14-0493	10-27-2014 07:17 AM
33	51	M7274I.D	M8404-P-D(4)	NBH14-0169 5-128 14-0493	10-27-2014 08:02 AM
34	52	M7274J.D	M8405-P-D(4)	NBH14-0173 5-128 14-0493	10-27-2014 08:46 AM
35	53	M7274K.D	IE07 mid		10-27-2014 09:31 AM
36	25	M7275.D	M8152-P-D(4)	NBH14-0001 5-128 14-0493	10-27-2014 10:15 AM
37	26	M7276.D	M8153-P-D(4)	NBH14-0005 5-128 14-0493	10-27-2014 11:00 AM
38	27	M7277.D	M8154-P-D(4)	NBH14-0009 5-128 14-0493	10-27-2014 11:44 AM
39	28	M7278.D	M8155-P-D(4)	NBH14-0013 5-128 14-0493	10-27-2014 12:29 PM
40	29	M7279.D	M8167-P-D(4)	NBH14-0065 5-128 14-0493	10-27-2014 01:13 PM
41	30	M7280.D	M8167DUP-P-D(4)	Lab Duplicate of NBH14-00	10-27-2014 01:58 PM
42	31	M7281.D	M8356-P-D(4)	NBH14-0207 5-128 14-0493	10-27-2014 02:43 PM
43	32	M7282.D	M8357-P-D(4)	NBH14-0211 5-128 14-0493	10-27-2014 03:27 PM
44	33	M7283.D	M8360-P-D(4)	NBH14-0220 5-128 14-0493	10-27-2014 04:12 PM
45	34	M7284.D	M8361-P-D(4)	NBH14-0224 5-128 14-0493	10-27-2014 04:56 PM
46	35	M7285.D	IE07 mid		10-27-2014 05:41 PM
47	36	M7286.D	M8362-P-D(4)	NBH14-0228 5-128 14-0493	10-27-2014 06:25 PM
48	37	M7287.D	M8363-P-D(4)	NBH14-0232 5-128 14-0493	10-27-2014 07:10 PM
49	38	M7288.D	M8368-P-D(4)	NBH14-0245 5-128 14-0493	10-27-2014 07:54 PM
50	39	M7289.D	M8369-P-D(4)	NBH14-0249 5-128 14-0493	10-27-2014 08:39 PM
51	40	M7290.D	M8370-P-D(4)	NBH14-0253 5-128 14-0493	10-27-2014 09:23 PM
52	41	M7291.D	M8387-P-D(4)	NBH14-0101 5-128 14-0493	10-27-2014 10:08 PM
53	42	M7292.D	IE08 mid		10-27-2014 10:52 PM

(1) Dilution not needed.
RR 11/18/14

INJECTION LOG

Directory I:\M\DATA\SM0419\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7293.D	HEXANE		10-28-2014 04:46 PM
2	2	M7294.D	HF94		10-28-2014 05:30 PM
3	3	M7295.D	IE08 mid		10-28-2014 06:15 PM
4	4	M7296.D	CD601PB-P(3)	Procedural Blank 5-128 14	10-28-2014 06:59 PM
5	5	M7297.D	CD602LCS-P(5)	Laboratory Control Sample	10-28-2014 07:44 PM
6	6	M7298.D	CD603SRM-P(5)	Standard Reference Materi	10-28-2014 08:28 PM
7	7	M7299.D	M7772-P(5)	B537PreNvA 5-128 14-0499	10-28-2014 09:13 PM
8	8	M7300.D	M7773-P(5)	B537PreNvB 5-128 14-0499	10-28-2014 09:57 PM
9	9	M7301.D	M7774-P(5)	B537PreNvC 5-128 14-0499	10-28-2014 10:42 PM
10	10	M7302.D	M7775-P(5)	B537R01NvA 5-128 14-0499	10-28-2014 11:26 PM
11	11	M7303.D	M7776-P(5)	B537R01NvB 5-128 14-0499	10-29-2014 12:11 AM
12	12	M7304.D	M7777-P(5)	B537R01NvC 5-128 14-0499	10-29-2014 12:55 AM
13	13	M7305.D	M7777MS-P(5)	Matrix Spike of B537R01Nv	10-29-2014 01:40 AM
14	14	M7306.D	HF94		10-29-2014 02:24 AM
15	15	M7307.D	IE07 mid		10-29-2014 03:09 AM
16	16	M7308.D	M7777MSD-P(5)	Matrix Spike Duplicate of	10-29-2014 03:53 AM
17	17	M7309.D	M7778-P(5)	B537R01NvD 5-128 14-0499	10-29-2014 04:38 AM
18	18	M7310.D	M7779-P(5)	B537R01NvE 5-128 14-0499	10-29-2014 05:22 AM
19	19	M7311.D	M7780-P(5)	B537S01NvA 5-128 14-0499	10-29-2014 06:07 AM
20	20	M7312.D	M7781-P(5)	B537S01NvB 5-128 14-0499	10-29-2014 06:51 AM
21	21	M7313.D	M7782-P(5)	B537S01NvC 5-128 14-0499	10-29-2014 07:36 AM
22	22	M7314.D	M7783-P(5)	B537S01NvD 5-128 14-0499	10-29-2014 08:20 AM
23	23	M7315.D	M7784-P(5)	B537S01NvE 5-128 14-0499	10-29-2014 09:05 AM
24	24	M7316.D	M7784DUP-P(5)	Lab Duplicate of B537S01N	10-29-2014 09:49 AM
25	25	M7317.D	M7785-P(5)	B537S02NvA 5-128 14-0499	10-29-2014 10:34 AM
26	26	M7318.D	HF94		10-29-2014 11:18 AM
27	27	M7319.D	IE08 mid		10-29-2014 12:03 PM
28	28	M7320.D	M7786-P(5)	B537S02NvB 5-128 14-0499	10-29-2014 12:48 PM
29	29	M7321.D	M7787-P(5)	B537S02NvC 5-128 14-0499	10-29-2014 01:32 PM
30	30	M7322.D	M7788-P(5)	B537S02NvD 5-128 14-0499	10-29-2014 02:17 PM
31	31	M7323.D	M7789-P(5)	B537S02NvE 5-128 14-0499	10-29-2014 03:01 PM
32	32	M7324.D	HF94		10-29-2014 03:46 PM
33	33	M7325.D	IE07 mid		10-29-2014 04:31 PM
34	34	M7326.D	M8152-P-D(5)	NBH14-0001 5-128 14-0493	10-29-2014 05:15 PM
35	35	M7327.D	M8153-P-D(5)	NBH14-0005 5-128 14-0493	10-29-2014 06:00 PM
36	36	M7328.D	M8154-P-D(5)	NBH14-0009 5-128 14-0493	10-29-2014 06:44 PM
37	37	M7329.D	M8155-P-D(5)	NBH14-0013 5-128 14-0493	10-29-2014 07:29 PM
38	38	M7330.D	M8356-P-D(5)	NBH14-0207 5-128 14-0493	10-29-2014 08:13 PM
39	39	M7331.D	M8357-P-D(5)	NBH14-0211 5-128 14-0493	10-29-2014 08:58 PM
40	40	M7332.D	M8368-P-D(5)	NBH14-0245 5-128 14-0493	10-29-2014 09:42 PM
41	41	M7333.D	M8369-P-D(5)	NBH14-0249 5-128 14-0493	10-29-2014 10:27 PM
42	42	M7334.D	M8370-P-D(5)	NBH14-0253 5-128 14-0493	10-29-2014 11:11 PM
43	43	M7335.D	M8400-P-D(5)	NBH14-0153 5-128 14-0493	10-29-2014 11:56 PM
44	44	M7336.D	IE08 mid		10-30-2014 12:41 AM
45	45	M7337.D	M8401-P-D(5)	NBH14-0157 5-128 14-0493	10-30-2014 01:25 AM
46	46	M7338.D	M8402-P-D(5)	NBH14-0161 5-128 14-0493	10-30-2014 02:10 AM
47	47	M7339.D	M8404-P-D(5)	NBH14-0169 5-128 14-0493	10-30-2014 02:54 AM
48	48	M7340.D	M8405-P-D(5)	NBH14-0173 5-128 14-0493	10-30-2014 03:39 AM
49	49	M7341.D	IE07 mid		10-30-2014 04:23 AM

INJECTION LOG

Directory I:\M\DATA\SM0420\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7342.D	HEXANE		10-30-2014 04:15 PM
2	2	M7343.D	HF94		10-30-2014 05:00 PM
3	3	M7344.D	IE07		10-30-2014 05:44 PM
4	4	M7345.D	CD718PB-P(3)		10-30-2014 06:29 PM
5	5	M7346.D	CD719LCS-P(5)		10-30-2014 07:13 PM
6	6	M7347.D	CD720LCSD-P(5)		10-30-2014 07:58 PM
7	7	M7348.D	CD721LCS-P(5)		10-30-2014 08:42 PM
8	8	M7349.D	CD722LCS-P(5)		10-30-2014 09:27 PM
9	9	M7350.D	CD723LCS-P(5)		10-30-2014 10:11 PM
10	10	M7351.D	M8474-P(5)		10-30-2014 10:55 PM
11	11	M7352.D	M8476-P(5)		10-30-2014 11:40 PM
12	12	M7353.D	M8478-P(5)		10-31-2014 12:24 AM
13	13	M7354.D	HF94		10-31-2014 01:09 AM
14	14	M7355.D	IE08		10-31-2014 01:53 AM
15	15	M7356.D	CK-669(1) DCM		10-31-2014 02:38 AM
16	16	M7357.D	CK-689(2) DCM		10-31-2014 03:22 AM
17	17	M7358.D	CK-672(1) DCM		10-31-2014 04:07 AM
18	18	M7359.D	CK-672(2) DCM		10-31-2014 04:51 AM
19	19	M7360.D	CK-667(1) HEX		10-31-2014 05:36 AM
20	20	M7361.D	CK-661(1) HEX		10-31-2014 06:20 AM
21	21	M7362.D	CK-661(1) HEX		10-31-2014 07:05 AM
22	22	M7363.D	CK-661(2) HEX		10-31-2014 07:49 AM
23	1	M7364.D	IE07 mid		10-31-2014 10:49 AM
24	2	M7365.D	M8402-P-D(7)	NBH14-0161 5-128 14-0493	10-31-2014 11:34 AM
25	3	M7366.D	IE08 mid		10-31-2014 12:18 PM
26	4	M7367.D	CD582PB-P(0)		10-31-2014 01:03 PM
27	5	M7368.D	CD583LCS-P(0)		10-31-2014 01:47 PM
28	6	M7369.D	M8156-P(2)		10-31-2014 02:32 PM
29	7	M7370.D	M8158-P(2)		10-31-2014 03:17 PM
30	8	M7371.D	M8163-P(2)		10-31-2014 04:01 PM
31	9	M7372.D	M8164-P(2)		10-31-2014 04:45 PM
32	10	M7373.D	M8165-P(2)		10-31-2014 05:30 PM
33	11	M7374.D	M8166-P(2)		10-31-2014 06:14 PM
34	12	M7375.D	M8166DUP-P(2)		10-31-2014 06:59 PM
35	13	M7376.D	M8347-P(2)		10-31-2014 07:43 PM
36	14	M7377.D	IE07mid		10-31-2014 08:28 PM
37	15	M7378.D	M8348-P(2)		10-31-2014 09:12 PM
38	16	M7379.D	M8355-P(2)		10-31-2014 09:57 PM
39	17	M7380.D	M8358-P(2)		10-31-2014 10:41 PM
40	18	M7381.D	M8359-P(2)		10-31-2014 11:26 PM
41	19	M7382.D	M8365-P(2)		11-1-2014 12:10 AM
42	20	M7383.D	M8365MS-P(2)		11-1-2014 12:55 AM
43	21	M7384.D	M8365MSD-P(2)		11-1-2014 01:39 AM
44	22	M7385.D	M8371-P(2)		11-1-2014 02:24 AM
45	23	M7386.D	M8372-P(2)		11-1-2014 03:08 AM
46	24	M7387.D	M8373-P(2)		11-1-2014 03:53 AM
47	25	M7388.D	IE08 mid		11-1-2014 04:37 AM
48	26	M7389.D	M8383-P(2)		11-1-2014 05:22 AM
49	27	M7390.D	M8384-P(2)		11-1-2014 06:06 AM
50	28	M7391.D	M8385-P(2)		11-1-2014 06:50 AM
51	29	M7392.D	M8386-P(2)		11-1-2014 07:35 AM
52	30	M7393.D	M8403-P(2)		11-1-2014 08:19 AM
53	31	M7394.D	M8156-P-D(4)		11-1-2014 09:04 AM
54	32	M7395.D	M8158-P-D(4)		11-1-2014 09:48 AM
55	33	M7396.D	M8163-P-D(4)		11-1-2014 10:33 AM
56	34	M7397.D	M8164-P-D(4)		11-1-2014 11:17 AM
57	35	M7398.D	M8165-P-D(4)		11-1-2014 12:02 PM
58	36	M7399.D	IE07 mid		11-1-2014 12:47 PM
59	37	M7400.D	M8166-P-D(4)		11-1-2014 01:31 PM
60	38	M7401.D	M8166DUP-P-D(4)		11-1-2014 02:16 PM
61	39	M7402.D	M8347-P-D(4)		11-1-2014 03:00 PM

E-90

INJECTION LOG

Directory I:\M\DATA\SM0424\ Highlighted cells reported

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7580.D	HEXANE		11-14-2014 03:59 PM
2	2	M7581.D	IE07		11-14-2014 04:44 PM
3	3	M7582.D	CD588PB-P(0)		11-14-2014 05:28 PM
4	4	M7583.D	CD589LCS-P(0)		11-14-2014 06:13 PM
5	5	M7584.D	CD590MDL-P(0)		11-14-2014 06:57 PM
6	6	M7585.D	CD591MDL-P(0)		11-14-2014 07:42 PM
7	7	M7586.D	CD592MDL-P(0)		11-14-2014 08:27 PM
8	8	M7587.D	CD593MDL-P(0)		11-14-2014 09:11 PM
9	9	M7588.D	CD594MDL-P(0)		11-14-2014 09:56 PM
10	10	M7589.D	CD595MDL-P(0)		11-14-2014 10:40 PM
11	11	M7590.D	CD596MDL-P(0)		11-14-2014 11:25 PM
12	12	M7591.D	CD597MDL-P(0)		11-15-2014 12:09 AM
13	13	M7592.D	IE08		11-15-2014 12:54 AM
14	14	M7593.D	CD809PB-P(0)		11-15-2014 01:38 AM
15	15	M7594.D	CD810LCS-P(0)		11-15-2014 02:22 AM
16	16	M7595.D	M8168-P(2)		11-15-2014 03:07 AM
17	17	M7596.D	M8168DUP-P(2)		11-15-2014 03:51 AM
18	18	M7597.D	M8170-P(2)		11-15-2014 04:36 AM
19	19	M7598.D	M8170MS-P(2)		11-15-2014 05:20 AM
20	20	M7599.D	M8170MSD-P(2)		11-15-2014 06:05 AM
21	21	M7600.D	M8171-P(2)		11-15-2014 06:49 AM
22	22	M7601.D	M8388-P(2)		11-15-2014 07:34 AM
23	23	M7602.D	M8168-P-D(4)		11-15-2014 08:18 AM
24	24	M7603.D	IE07 mid		11-15-2014 09:03 AM
25	25	M7604.D	M8168DUP-P-D(4)		11-15-2014 09:47 AM
26	26	M7605.D	M8170-P-D(4)		11-15-2014 10:31 AM
27	27	M7606.D	M8171-P-D(4)		11-15-2014 11:16 AM
28	28	M7607.D	M8388-P-D(4)		11-15-2014 12:01 PM
29	29	M7608.D	M8168-P-D(4)		11-15-2014 12:45 PM
30	30	M7609.D	M8168DUP-P-D(4)		11-15-2014 01:29 PM
31	31	M7610.D	M8170-P-D(4)		11-15-2014 02:14 PM
32	32	M7611.D	M8171-P-D(4)		11-15-2014 02:58 PM
33	33	M7612.D	M8388-P-D(4)		11-15-2014 03:43 PM
34	34	M7613.D	M8363-P-D(5)	NBH14-0232 5-128 14-0493	11-15-2014 04:28 PM
35	35	M7614.D	IE08 mid		11-15-2014 05:12 PM
36	36	M7615.D	IF27	AROCLOR 1221	11-15-2014 05:57 PM
37	37	M7616.D	IF28	AROCLOR 1232	11-15-2014 06:41 PM
38	38	M7617.D	IF29	AROCLOR 1242	11-15-2014 07:26 PM
39	39	M7618.D	IF30	AROCLOR 1248	11-15-2014 08:10 PM
40	40	M7619.D	IF31	AROCLOR 1254	11-15-2014 08:54 PM
41	41	M7620.D	IB57	AROCLOR 1262	11-15-2014 09:39 PM
42	42	M7621.D	IB58	AROCLOR 1268	11-15-2014 10:23 PM
43	43	M7622.D	IF16		11-15-2014 11:08 PM
44	44	M7623.D	IF17		11-15-2014 11:52 PM
45	45	M7624.D	IF18		11-16-2014 12:37 AM
46	46	M7625.D	IF19		11-16-2014 01:21 AM
47	47	M7626.D	IF20		11-16-2014 02:06 AM
48	48	M7627.D	IF21		11-16-2014 02:50 AM
49	49	M7628.D	IF13 ICC		11-16-2014 03:34 AM
50	50	M7629.D	CD899PB-P(3)	Procedural Blank 5-128 14	11-16-2014 04:19 AM
51	51	M7630.D	CD900LCS-P(3)	Laboratory Control Sample	11-16-2014 05:03 AM
52	52	M7631.D	M9176-P(3)	PMP-22-SW-VS 5-128 14-056	11-16-2014 05:48 AM
53	53	M7632.D	M9176MS-P(3)	Matrix Spike of PMP-22-SW	11-16-2014 06:32 AM
54	54	M7633.D	M9177-P(3)	PMP-23-SW-VS 5-128 14-056	11-16-2014 07:17 AM
55	55	M7634.D	M9177DUP-P(3)	Lab Duplicate of PMP-23-S	11-16-2014 08:01 AM
56	56	M7635.D	M9178-P(3)	PMP-24-SW-VS 5-128 14-056	11-16-2014 08:46 AM
57	57	M7636.D	IF29		11-16-2014 09:30 AM
58	2	M7637.D	IF19 mid		11-17-2014 12:15 PM
59	3	M7638.D	M9176-P-D(5)	PMP-22-SW-VS 5-128 14-056	11-17-2014 01:44 PM
60	4	M7639.D	M9177-P-D(7)	PMP-23-SW-VS 5-128 14-056	11-17-2014 02:29 PM
61	5	M7640.D	M9177DUP-P-D(7)	Lab Duplicate of PMP-23-S	11-17-2014 03:13 PM

Calibration Response Factor Report

Batch: 14-0493 **Project Test Code:** Master 128(S) RFS validated CRD 12/9/2014
Data Set: DP-14-0675 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417B.M **Responses Via** Initial Calibration **Last Updated** 10/28/2014 9:02:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417B.M

No:	Analyte:	Type:	Column:	MAD:	1 IE03 M7205.D	2 IE05 M7207.D	3 IE06 M7208.D	4 IE07 M7209.D	5 IE08 M7210.D	6 IE10 M7212.D	7	8	Levels:	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl2(8)	1	Y	1.02677	0.82499	0.74685	0.63118	0.55904	0.41512	-	-	6	Q	-0.05406	0.58100	0.02367	0.99968		
3	Cl3(18)	1	Y	1.31210	1.10482	0.96661	0.78724	0.69070	0.50395	-	-	6	Q	-0.06844	0.71262	0.03558	0.99947		
4	Cl3(34)	s	1	Y	2.47273	1.36117	1.18217	1.03139	0.92191	0.71999	-	-	6	Q	-0.06938	0.92761	0.04587	0.99994	
5	Cl3(28)	1	Y	1.88563	1.62148	1.53903	1.39969	1.26450	1.01381	-	-	6	Q	-0.09842	1.31978	0.03237	0.99986		
6	Cl4(52)	1	Y	2.67460	1.50893	1.27188	1.06050	0.93014	0.70933	-	-	6	Q	-0.07364	0.92696	0.05816	0.99983		
7	Cl4(44)	1	Y	1.96878	1.69047	1.60648	1.42175	1.25645	1.00372	-	-	6	Q	-0.09818	1.30598	0.04163	0.99973		
8	Cl4(66)	1	Y	2.14003	1.91334	1.75148	1.60565	1.43266	1.15511	-	-	6	Q	-0.10876	1.49082	0.04098	0.99982		
9	Cl5(101)	1	Y	1.87327	1.59373	1.70864	1.61385	1.42978	1.22422	-	-	6	Q	-0.08750	1.49635	0.02623	0.99975		
10	Cl6(161)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Cl6(152)	s	1	Y	1.02184	0.73169	0.67623	0.59438	0.54889	0.47996	-	-	6	Q	-0.02339	0.54921	0.01882	0.99992	
12	Cl5(118)	1	Y	1.02402	0.91463	0.85020	0.75415	0.68354	0.58350	-	-	6	Q	-0.03737	0.69686	0.02122	0.99982		
13	Cl6(153)	1	Y	0.88266	0.81935	0.60192	0.77537	0.66030	0.59647	-	-	6	Q	-0.02991	0.69018	0.00733	0.99932		
14	Cl5(105)	1	Y	1.20312	1.04021	0.99965	0.96015	0.82296	0.65909	-	-	6	Q	-0.06789	0.87004	0.02177	0.99963		
15	Cl6(138)	1	Y	1.22541	1.06675	1.00587	0.91669	0.84817	0.76297	-	-	6	Q	-0.03117	0.85646	0.02109	0.99991		
16	Cl7(187)	1	Y	1.07415	0.94434	0.88498	0.79082	0.74346	0.66512	-	-	6	Q	-0.02786	0.74881	0.01846	0.99992		
17	Cl6(128)	1	Y	1.16100	0.91667	0.89359	0.85607	0.84318	0.73247	-	-	6	Q	-0.04270	0.86786	0.00587	0.99999		
18	Cl7(180)	1	Y	1.23170	1.08198	0.99753	0.93689	0.88497	0.82624	-	-	6	Q	-0.02031	0.88592	0.01772	0.99996		
19	Cl7(170)	1	Y	1.33635	1.19973	1.11853	1.05917	1.00487	0.94111	-	-	6	Q	-0.02267	1.00845	0.01743	0.99997		
20	Cl8(195)	1	Y	1.24821	1.10061	1.05076	0.99234	0.94476	0.89153	-	-	6	Q	-0.01887	0.94735	0.01528	0.99997		
21	Cl9(206)	1	Y	1.18038	1.03661	0.99467	0.96457	0.91081	0.85789	-	-	6	Q	-0.02022	0.91869	0.01268	0.99997		
22	Cl10(209)	1	Y	0.99002	0.86426	0.82007	0.78889	0.73849	0.67758	-	-	6	Q	-0.02343	0.74907	0.01198	0.99996		
23	Signal	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Cl2(8)	2	Y	0.94637	0.83650	0.76620	0.67202	0.62199	0.48595	-	-	6	Q	-0.05185	0.64681	0.01712	0.99988		
26	Cl3(18)	2	Y	1.39241	1.13741	1.00550	0.76551	0.70491	0.54182	-	-	6	Q	-0.05533	0.70768	0.03799	0.99943		
27	Cl3(34)	s	2	Y	2.23518	1.39531	1.20146	1.04748	0.98379	0.79730	-	-	6	Q	-0.06315	0.98749	0.03800	0.99996	
28	Cl3(28)	2	Y	2.05612	1.73008	1.59254	1.42520	1.36560	1.12979	-	-	6	Q	-0.08759	1.40224	0.02866	0.99996		
29	Cl4(52)	2	Y	1.32543	1.01634	1.04226	0.82635	0.80598	0.62728	-	-	6	Q	-0.06549	0.83027	0.02172	0.99971		
30	Cl4(44)	2	Y	2.26696	1.68554	1.62828	1.44775	1.40139	1.13801	-	-	6	Q	-0.09853	1.44647	0.02603	0.99996		

Calibration Response Factor Report

Batch: 14-0493 **Project Test Code:** Master 128(S)
Data Set: DP-14-0675 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417B.M **Responses Via** Initial Calibration **Last Updated** 10/28/2014 9:02:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417B.M

No:	Analyte:	Column Type:	Column:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
			MQO:	IE03	IE05	IE06	IE07	IE08	IE10			Levels:					
				M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D								
31	Cl4(66)		Y	2.28150	1.94181	1.76289	1.65364	1.54066	1.31516	-	-	6 Q	-0.08582	1.58007	0.03256	0.99996	
32	Cl5(101)		Y	1.56754	1.17777	1.01633	1.01029	0.86410	0.96534	-	-	6 Q	0.04538	0.80794	0.03732	0.99968	
33	Cl6(161)	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	Cl6(152)	s	Y	0.69735	0.69234	0.57622	0.54795	0.47409	0.53607	-	-	6 Q	0.02791	0.43955	0.02156	0.99966	
35	Cl5(118)		Y	1.37021	0.63622	0.73177	0.70795	0.59017	0.57149	-	-	6 Q	-0.00725	0.58778	0.02195	0.99943	
36	Cl6(153)		Y	1.07545	0.86632	0.79677	0.69128	0.63279	0.63321	-	-	6 Q	0.00578	0.60663	0.02539	0.99983	
37	Cl5(105)		Y	1.20126	1.01455	0.97857	0.92200	0.88341	0.94009	-	-	6 Q	0.02686	0.84840	0.01736	0.99996	
38	Cl6(138)		Y	0.67940	0.66822	0.62305	0.61544	0.61172	0.68345	-	-	6 Q	0.03117	0.58132	0.00625	0.99999	
39	Cl7(187)		Y	0.98245	0.80842	0.76633	0.69224	0.65688	0.68482	-	-	6 Q	0.01569	0.62875	0.01795	0.99993	
40	Cl6(128)		Y	1.29556	1.08544	1.04052	0.96581	0.92997	0.98492	-	-	6 Q	0.02722	0.89128	0.01958	0.99996	
41	Cl7(180)		Y	1.15986	0.95311	0.92022	0.85738	0.83699	0.89707	-	-	6 Q	0.02897	0.79906	0.01566	0.99998	
42	Cl7(170)		Y	1.17715	1.00944	0.98379	0.93732	0.91404	0.98260	-	-	6 Q	0.03138	0.87743	0.01381	0.99998	
43	Cl8(195)		Y	1.05313	0.90773	0.89676	0.85979	0.84072	0.91395	-	-	6 Q	0.03255	0.80577	0.01137	0.99998	
44	Cl9(206)		Y	0.94156	0.80488	0.80171	0.77400	0.75899	0.82033	-	-	6 Q	0.02717	0.73041	0.00888	0.99999	
45	Cl10(209)		Y	0.76301	0.64557	0.63678	0.60540	0.58689	0.62005	-	-	6 Q	0.01548	0.56751	0.00888	0.99998	

Calibration Response Factor Report

Batch: 14-0493 **Project Test Code:** Master 128(S)
Data Set: DP-14-0675 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417B.M **Responses Via** Initial Calibration **Last Updated** 10/28/2014 9:02:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417B.M

No:	Analyte:	Type:	Column:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
			MQO:	IE03	IE05	IE06	IE07	IE08	IE10	-	-	Levels:					
				M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D	-	-						

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax ² + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax ² + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax ² + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax ² + Bx + 0

Calibration Response Factor Report

Batch: 14-0493 **Project Test Code:** Master 128(S) RFs validated 12/9/2014
Data Set: DP-14-0675 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417F.M **Responses Via** Initial Calibration **Last Updated** 12/5/2014 3:22:00 PM **Title:** NBH 101 only to compliment B method
Instrument: Inst_M **Operator:** RR **Path:** I:\M\DATA\MM0417F.M

No:	Analyte:	Type:	Column:	MQO:	1 IE03	2 IE05	3 IE06	4 IE07	5 IE08	6 IE10	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl5(101)	Y	1	Y	2.10045	1.55920	1.68988	1.70104	1.46973	1.35619	-	-	6 Q	-0.05296	1.51726	0.02697	0.99964	
3	Signal		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Cl5(101)	Y	2	Y	1.67256	2.33575	1.99479	1.98711	2.06595	1.40514	-	-	6 Q	-0.26866	2.27420	-0.02348	0.99966	

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax ² + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax ² + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax ² + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax ² + Bx + 0

Calibration Response Factor Report

Batch: 14-0493 **Project Test Code:** Master 128(S)
Data Set: DP-14-0675 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

Method: I:\M\DATA\MM0417B.M
Title: NBH
Last Update: Tue Oct 28 9:02 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Oct 28 9:02 2014	Oct 28 8:27 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 11:58 PM

Method: I:\M\DATA\MM0417F.M
Title: NBH 101 only to compliment B method
Last Update: Fri Dec 05 15:22 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Dec 05 15:22 2014	Dec 05 15:15 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 11:58 PM

ICC Summary Report

Batch: 14-0493 **Data Set:** DP-14-0675
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project No:** 100053747
Batch: 14-0493 **Matrix:** SED
Calibration File: MM0417B.M **Last Updated:** 10/28/2014 9:02:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl2(8)		1	Y	0.04000	0.04325	8.3
3	Cl3(18)		1	Y	0.04000	0.04152	3.8
4	Cl3(34)	s	1	Y	0.04000	0.04104	2.5
5	Cl3(28)		1	Y	0.04000	0.04097	2.5
6	Cl4(52)		1	Y	0.04000	0.04111	2.8
7	Cl4(44)		1	Y	0.04000	0.04174	4.3
8	Cl4(66)		1	Y	0.04000	0.04028	0.8
9	Cl5(101)		1	Y	0.04000	0.03909	2.3
10	Cl6(161)	I	1	-			
11	Cl6(152)	s	1	Y	0.04020	0.04329	7.8
12	Cl5(118)		1	Y	0.04000	0.04106	2.8
13	Cl6(153)		1	Y	0.04000	0.04279	7.0
14	Cl5(105)		1	Y	0.04000	0.04304	7.5
15	Cl6(138)		1	Y	0.04000	0.04232	5.8
16	Cl7(187)		1	Y	0.04000	0.04241	6.0
17	Cl6(128)		1	Y	0.04000	0.04114	2.8
18	Cl7(180)		1	Y	0.04000	0.04137	3.5
19	Cl7(170)		1	Y	0.04000	0.04068	1.8
20	Cl8(195)		1	Y	0.04000	0.04039	1.0
21	Cl9(206)		1	Y	0.04000	0.03895	2.5
22	Cl10(209)		1	Y	0.04000	0.03913	2.3
24	Cl5(96)	I	2	-			
25	Cl2(8)		2	Y	0.04000	0.04291	7.3
26	Cl3(18)		2	Y	0.04000	0.04108	2.8
27	Cl3(34)	s	2	Y	0.04000	0.04151	3.8
28	Cl3(28)		2	Y	0.04000	0.04079	2.0
29	Cl4(52)		2	Y	0.04000	0.04033	0.8
30	Cl4(44)		2	Y	0.04000	0.04180	4.5
31	Cl4(66)		2	Y	0.04000	0.04056	1.5
32	Cl5(101)		2	Y	0.04000	0.03895	2.5
33	Cl6(161)	I	2	-			
34	Cl6(152)	s	2	Y	0.04020	0.03914	2.6
35	Cl5(118)		2	Y	0.04000	0.04347	8.8
36	Cl6(153)		2	Y	0.04000	0.04346	8.8
37	Cl5(105)		2	Y	0.04000	0.04183	4.5
38	Cl6(138)		2	Y	0.04000	0.04161	4.0
39	Cl7(187)		2	Y	0.04000	0.04269	6.8
40	Cl6(128)		2	Y	0.04000	0.04137	3.5
41	Cl7(180)		2	Y	0.04000	0.04074	1.8
42	Cl7(170)		2	Y	0.04000	0.04076	2.0
43	Cl8(195)		2	Y	0.04000	0.03961	1.0
44	Cl9(206)		2	Y	0.04000	0.03898	2.5

ICC Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0493 Matrix: SED
Calibration File: MM0417B.M Last Updated: 10/28/2014 9:02:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
45	Cl10(209)	2	Y	0.04000	0.03909	2.3	

MQO: Only compounds flagged with "Y" will be counted towards
MQO exceedences.

Mean PD: 3.80
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

ICC Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0493 Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.04000	0.03858	3.5
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.04000	0.03850	3.8

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: 3.65
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0493 **Data Set:** DP-14-0675
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417B.M **Last Updated:** 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7263.D		M7274K.D		M7285.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						IE07 mid 10/26/2014 17:09		IE07 mid 10/27/2014 09:31		IE07 mid 10/27/2014 17:41	
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.04008	0.04011	0.1	0.04129	3.0	0.03832	-4.4
3	Cl3(18)		1	Y	0.04016	0.03887	-3.2	0.04149	3.3	0.03893	-3.1
4	Cl3(34)	s	1	Y	0.04000	0.04052	1.3	0.04257	6.4	0.03918	-2.1
5	Cl3(28)		1	Y	0.04016	0.04271	6.3	0.04180	4.1	0.04071	1.4
6	Cl4(52)		1	Y	0.04004	0.04017	0.3	0.04252	6.2	0.03986	-0.4
7	Cl4(44)		1	Y	0.04016	0.04165	3.7	0.04148	3.3	0.04025	0.2
8	Cl4(66)		1	Y	0.04008	0.04275	6.7	0.04120	2.8	0.04032	0.6
9	Cl5(101)		1	Y	0.04008	0.03627	-9.5	0.03737	-6.8	0.03815	-4.8
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.04016	0.04036	0.5	0.04348	8.3	0.04259	6.1
12	Cl5(118)		1	Y	0.04016	0.04026	0.2	0.04330	7.8	0.04038	0.5
13	Cl6(153)		1	Y	0.04016	0.03717	-7.4	0.03871	-3.6	0.03776	-6.0
14	Cl5(105)		1	Y	0.04012	0.04083	1.8	0.04307	7.4	0.03834	-4.4
15	Cl6(138)		1	Y	0.04016	0.04020	0.1	0.03990	-0.6	0.03935	-2.0
16	Cl7(187)		1	Y	0.04016	0.04012	-0.1	0.04029	0.3	0.04050	0.8
17	Cl6(128)		1	Y	0.04016	0.03747	-6.7	0.04103	2.2	0.04319	7.5
18	Cl7(180)		1	Y	0.04016	0.03964	-1.3	0.03984	-0.8	0.03955	-1.5
19	Cl7(170)		1	Y	0.04016	0.03984	-0.8	0.03989	-0.7	0.03946	-1.7
20	Cl8(195)		1	Y	0.04016	0.03966	-1.2	0.04066	1.2	0.04002	-0.3
21	Cl9(206)		1	Y	0.04008	0.03812	-4.9	0.04049	1.0	0.03947	-1.5
22	Cl10(209)		1	Y	0.04016	0.03732	-7.1	0.03996	-0.5	0.03929	-2.2
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.04008	0.04129	3.0	0.04010	0.0	0.03875	-3.3
26	Cl3(18)		2	Y	0.04016	0.03985	-0.8	0.04318	7.5	0.03999	-0.4
27	Cl3(34)	s	2	Y	0.04000	0.04083	2.1	0.03997	-0.1	0.03910	-2.2
28	Cl3(28)		2	Y	0.04016	0.04205	4.7	0.04032	0.4	0.03940	-1.9
29	Cl4(52)		2	Y	0.04004	0.04244	6.0	0.04085	2.0	0.04019	0.4
30	Cl4(44)		2	Y	0.04016	0.03739	-6.9	0.03979	-0.9	0.04123	2.7
31	Cl4(66)		2	Y	0.04008	0.04287	7.0	0.04195	4.7	0.04197	4.7
32	Cl5(101)		2	Y	0.04008	0.03915	-2.3	0.04031	0.6	0.04002	-0.1
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.04016	0.04015	0.0	0.04055	1.0	0.03884	-3.3
35	Cl5(118)		2	Y	0.04016	0.03668	-8.7	0.03838	-4.4	0.04050	0.8
36	Cl6(153)		2	Y	0.04016	0.03936	-2.0	0.04026	0.2	0.03947	-1.7
37	Cl5(105)		2	Y	0.04012	0.04009	-0.1	0.04082	1.7	0.04024	0.3
38	Cl6(138)		2	Y	0.04016	0.03919	-2.4	0.04142	3.1	0.04124	2.7
39	Cl7(187)		2	Y	0.04016	0.03997	-0.5	0.04218	5.0	0.04117	2.5
40	Cl6(128)		2	Y	0.04016	0.03995	-0.5	0.04239	5.6	0.04127	2.8
41	Cl7(180)		2	Y	0.04016	0.03956	-1.5	0.04105	2.2	0.04217	5.0
42	Cl7(170)		2	Y	0.04016	0.03891	-3.1	0.04155	3.5	0.04126	2.7
43	Cl8(195)		2	Y	0.04016	0.03869	-3.7	0.04217	5.0	0.04121	2.6
44	Cl9(206)		2	Y	0.04008	0.03868	-3.5	0.04316	7.7	0.04098	2.2

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED

Calibration File: MM0417B.M Last Updated: 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7263.D		M7274K.D		M7285.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.04016	0.03940	-1.9	0.04320	7.6	0.04086	1.7
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	3.1	3.3	2.4		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0493 **Data Set:** DP-14-0675
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED

Calibration File: MM0417B.M **Last Updated:** 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7325.D		M7341.D		M7364.D	
						IE07 mid		IE07 mid		IE07 mid	
						10/29/2014 16:31	10/30/2014 04:24	10/31/2014 10:49			
					MID	% Diff	MID	% Diff	MID	% Diff	
1	Cl5(96)	l	1	-							
2	Cl2(8)		1	Y	0.04008	0.04015	0.2	0.03738	-6.7	0.03769	-6.0
3	Cl3(18)		1	Y	0.04016	0.04095	2.0	0.03893	-3.1	0.04070	1.3
4	Cl3(34)	s	1	Y	0.04000	0.03917	-2.1	0.03795	-5.1	0.03836	-4.1
5	Cl3(28)		1	Y	0.04016	0.04136	3.0	0.03849	-4.2	0.03979	-0.9
6	Cl4(52)		1	Y	0.04004	0.03970	-0.8	0.03900	-2.6	0.03851	-3.8
7	Cl4(44)		1	Y	0.04016	0.04109	2.3	0.03908	-2.7	0.04149	3.3
8	Cl4(66)		1	Y	0.04008	0.04104	2.4	0.03948	-1.5	0.03885	-3.1
9	Cl5(101)		1	Y	0.04008	0.03851	-3.9	0.03788	-5.5	0.04350	8.5
10	Cl6(161)	l	1	-							
11	Cl6(152)	s	1	Y	0.04016	0.04207	4.8	0.04264	6.2	0.04211	4.9
12	Cl5(118)		1	Y	0.04016	0.04139	3.1	0.04056	1.0	0.03614	-10.0
13	Cl6(153)		1	Y	0.04016	0.03854	-4.0	0.03964	-1.3	0.04090	1.8
14	Cl5(105)		1	Y	0.04012	0.03904	-2.7	0.04262	6.2	0.04081	1.7
15	Cl6(138)		1	Y	0.04016	0.04136	3.0	0.03923	-2.3	0.03906	-2.7
16	Cl7(187)		1	Y	0.04016	0.04148	3.3	0.04046	0.7	0.04079	1.6
17	Cl6(128)		1	Y	0.04016	0.03905	-2.8	0.04365	8.7	0.04334	7.9
18	Cl7(180)		1	Y	0.04016	0.04071	1.4	0.03896	-3.0	0.04110	2.3
19	Cl7(170)		1	Y	0.04016	0.04106	2.2	0.03908	-2.7	0.04167	3.8
20	Cl8(195)		1	Y	0.04016	0.04161	3.6	0.03977	-1.0	0.04276	6.5
21	Cl9(206)		1	Y	0.04008	0.04148	3.5	0.03925	-2.1	0.04348	8.5
22	Cl10(209)		1	Y	0.04016	0.04131	2.9	0.03929	-2.2	0.04395	9.4
24	Cl5(96)	l	2	-							
25	Cl2(8)		2	Y	0.04008	0.04040	0.8	0.03946	-1.5	0.04031	0.6
26	Cl3(18)		2	Y	0.04016	0.03829	-4.7	0.03676	-8.5	0.04063	1.2
27	Cl3(34)	s	2	Y	0.04000	0.03980	-0.5	0.03964	-0.9	0.04070	1.7
28	Cl3(28)		2	Y	0.04016	0.04018	0.0	0.03787	-5.7	0.03681	-8.3
29	Cl4(52)		2	Y	0.04004	0.04106	2.5	0.04238	5.8	0.03856	-3.7
30	Cl4(44)		2	Y	0.04016	0.03850	-4.1	0.04020	0.1	0.03783	-5.8
31	Cl4(66)		2	Y	0.04008	0.04208	5.0	0.04196	4.7	0.03967	-1.0
32	Cl5(101)		2	Y	0.04008	0.03655	-8.8	0.04359	8.8	0.03734	-6.8
33	Cl6(161)	l	2	-							
34	Cl6(152)	s	2	Y	0.04016	0.03892	-3.1	0.04154	3.4	0.04121	2.6
35	Cl5(118)		2	Y	0.04016	0.03472	-13.5	0.03934	-2.0	0.03776	-6.0
36	Cl6(153)		2	Y	0.04016	0.03750	-6.6	0.03939	-1.9	0.03741	-6.8
37	Cl5(105)		2	Y	0.04012	0.03881	-3.3	0.03997	-0.4	0.03788	-5.6
38	Cl6(138)		2	Y	0.04016	0.04021	0.1	0.03706	-7.7	0.04225	5.2
39	Cl7(187)		2	Y	0.04016	0.03942	-1.8	0.04106	2.2	0.04096	2.0
40	Cl6(128)		2	Y	0.04016	0.04013	-0.1	0.04090	1.8	0.03960	-1.4
41	Cl7(180)		2	Y	0.04016	0.04123	2.7	0.04113	2.4	0.04054	0.9
42	Cl7(170)		2	Y	0.04016	0.04250	5.8	0.04058	1.0	0.04084	1.7
43	Cl8(195)		2	Y	0.04016	0.04378	9.0	0.04071	1.4	0.04204	4.7
44	Cl9(206)		2	Y	0.04008	0.04679	16.7	0.04088	2.0	0.04354	8.6

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED

Calibration File: MM0417B.M Last Updated: 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7325.D		M7341.D		M7364.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.04016	0.04729	17.8	0.04108	2.3	0.04454	10.9
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.0	3.3	4.4		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0493 **Data Set:** DP-14-0675
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED

Calibration File: MM0417B.M **Last Updated:** 10/28/2014 9:02:00 AM

M7603.D

IE07 mid

11/15/2014 09:03

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl2(8)		1	Y	0.04008	0.03830	-4.4
3	Cl3(18)		1	Y	0.04016	0.03844	-4.3
4	Cl3(34)	s	1	Y	0.04000	0.03865	-3.4
5	Cl3(28)		1	Y	0.04016	0.03954	-1.5
6	Cl4(52)		1	Y	0.04004	0.03849	-3.9
7	Cl4(44)		1	Y	0.04016	0.03993	-0.6
8	Cl4(66)		1	Y	0.04008	0.03790	-5.4
9	Cl5(101)		1	Y	0.04008	0.04013	0.1
10	Cl6(161)	I	1	-			
11	Cl6(152)	s	1	Y	0.04016	0.04194	4.4
12	Cl5(118)		1	Y	0.04016	0.03709	-7.6
13	Cl6(153)		1	Y	0.04016	0.03847	-4.2
14	Cl5(105)		1	Y	0.04012	0.04158	3.6
15	Cl6(138)		1	Y	0.04016	0.03866	-3.7
16	Cl7(187)		1	Y	0.04016	0.04004	-0.3
17	Cl6(128)		1	Y	0.04016	0.03749	-6.6
18	Cl7(180)		1	Y	0.04016	0.03922	-2.3
19	Cl7(170)		1	Y	0.04016	0.03895	-3.0
20	Cl8(195)		1	Y	0.04016	0.04020	0.1
21	Cl9(206)		1	Y	0.04008	0.03987	-0.5
22	Cl10(209)		1	Y	0.04016	0.04027	0.3
24	Cl5(96)	I	2	-			
25	Cl2(8)		2	Y	0.04008	0.03753	-6.4
26	Cl3(18)		2	Y	0.04016	0.03562	-11.3
27	Cl3(34)	s	2	Y	0.04000	0.03886	-2.9
28	Cl3(28)		2	Y	0.04016	0.03728	-7.2
29	Cl4(52)		2	Y	0.04004	0.03764	-6.0
30	Cl4(44)		2	Y	0.04016	0.04091	1.9
31	Cl4(66)		2	Y	0.04008	0.04016	0.2
32	Cl5(101)		2	Y	0.04008	0.04330	8.0
33	Cl6(161)	I	2	-			
34	Cl6(152)	s	2	Y	0.04016	0.03978	-0.9
35	Cl5(118)		2	Y	0.04016	0.03660	-8.9
36	Cl6(153)		2	Y	0.04016	0.03906	-2.7
37	Cl5(105)		2	Y	0.04012	0.03760	-6.3
38	Cl6(138)		2	Y	0.04016	0.04239	5.6
39	Cl7(187)		2	Y	0.04016	0.04076	1.5
40	Cl6(128)		2	Y	0.04016	0.03988	-0.7
41	Cl7(180)		2	Y	0.04016	0.04108	2.3
42	Cl7(170)		2	Y	0.04016	0.04103	2.2
43	Cl8(195)		2	Y	0.04016	0.04193	4.4
44	Cl9(206)		2	Y	0.04008	0.04240	5.8

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417B.M Last Updated: 10/28/2014 9:02:00 AM

M7603.D

IE07 mid

11/15/2014 09:03

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
45	Cl10(209)		2	Y	0.04016	0.04311	7.3

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: **3.8**
Time Check: **< 24**

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

Battelle

The Business of Innovation

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
 Project Test Code: Master 128(S) SOP_NO: 5-128-13
 Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
 Calibration File: MM0417B.M Last Updated: 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7252.D		M7274.D		M7292.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						IE08 mid		IE08 mid		IE08 mid	
						10/26/2014 08:59		10/27/2014 01:19		10/27/2014 22:52	
						MID	% Diff	MID	% Diff	MID	% Diff
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.08016	0.07434	-7.3	0.07882	-1.7	0.07478	-6.7
3	Cl3(18)		1	Y	0.08032	0.07323	-8.8	0.07733	-3.7	0.07708	-4.0
4	Cl3(34)	s	1	Y	0.08000	0.07634	-4.6	0.07969	-0.4	0.07897	-1.3
5	Cl3(28)		1	Y	0.08032	0.07644	-4.8	0.08168	1.7	0.08215	2.3
6	Cl4(52)		1	Y	0.08008	0.07409	-7.5	0.07876	-1.6	0.08004	0.0
7	Cl4(44)		1	Y	0.08032	0.07642	-4.9	0.08060	0.3	0.07973	-0.7
8	Cl4(66)		1	Y	0.08016	0.07641	-4.7	0.07931	-1.1	0.08183	2.1
9	Cl5(101)		1	Y	0.08016	0.08166	1.9	0.07302	-8.9	0.07633	-4.8
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.08032	0.07834	-2.5	0.07994	-0.5	0.07985	-0.6
12	Cl5(118)		1	Y	0.08032	0.07659	-4.6	0.07604	-5.3	0.07858	-2.2
13	Cl6(153)		1	Y	0.08032	0.07640	-4.9	0.07271	-9.5	0.07482	-6.8
14	Cl5(105)		1	Y	0.08024	0.08807	9.8	0.07516	-6.3	0.08137	1.4
15	Cl6(138)		1	Y	0.08032	0.07777	-3.2	0.07733	-3.7	0.07900	-1.6
16	Cl7(187)		1	Y	0.08032	0.07786	-3.1	0.07789	-3.0	0.07972	-0.7
17	Cl6(128)		1	Y	0.08032	0.08282	3.1	0.07680	-4.4	0.07576	-5.7
18	Cl7(180)		1	Y	0.08032	0.07869	-2.0	0.07769	-3.3	0.07863	-2.1
19	Cl7(170)		1	Y	0.08032	0.07797	-2.9	0.07806	-2.8	0.07638	-4.9
20	Cl8(195)		1	Y	0.08032	0.07792	-3.0	0.07936	-1.2	0.07842	-2.4
21	Cl9(206)		1	Y	0.08016	0.07637	-4.7	0.07757	-3.2	0.07704	-3.9
22	Cl10(209)		1	Y	0.08032	0.07609	-5.3	0.07636	-4.9	0.07611	-5.2
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.08016	0.07949	-0.8	0.07632	-4.8	0.07494	-6.5
26	Cl3(18)		2	Y	0.08032	0.07574	-5.7	0.07320	-8.9	0.08179	1.8
27	Cl3(34)	s	2	Y	0.08000	0.07866	-1.7	0.07924	-0.9	0.07574	-5.3
28	Cl3(28)		2	Y	0.08032	0.07708	-4.0	0.07834	-2.5	0.07617	-5.2
29	Cl4(52)		2	Y	0.08008	0.08149	1.8	0.07927	-1.0	0.07335	-8.4
30	Cl4(44)		2	Y	0.08032	0.07792	-3.0	0.08243	2.6	0.07518	-6.4
31	Cl4(66)		2	Y	0.08016	0.08148	1.6	0.08252	2.9	0.08022	0.1
32	Cl5(101)		2	Y	0.08016	0.08262	3.1	0.08514	6.2	0.07833	-2.3
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.08032	0.08199	2.1	0.08088	0.7	0.07511	-6.5
35	Cl5(118)		2	Y	0.08032	0.07746	-3.6	0.07367	-8.3	0.07981	-0.6
36	Cl6(153)		2	Y	0.08032	0.07835	-2.5	0.07380	-8.1	0.07887	-1.8
37	Cl5(105)		2	Y	0.08024	0.07977	-0.6	0.07693	-4.1	0.07965	-0.7
38	Cl6(138)		2	Y	0.08032	0.08555	6.5	0.08260	2.8	0.08499	5.8
39	Cl7(187)		2	Y	0.08032	0.07888	-1.8	0.07797	-2.9	0.08136	1.3
40	Cl6(128)		2	Y	0.08032	0.07937	-1.2	0.07973	-0.7	0.08134	1.3
41	Cl7(180)		2	Y	0.08032	0.07892	-1.7	0.08514	6.0	0.07920	-1.4
42	Cl7(170)		2	Y	0.08032	0.07858	-2.2	0.08610	7.2	0.07909	-1.5
43	Cl8(195)		2	Y	0.08032	0.07814	-2.7	0.09044	12.6	0.07921	-1.4
44	Cl9(206)		2	Y	0.08016	0.07778	-3.0	0.09579	19.5	0.07825	-2.4

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417B.M Last Updated: 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7252.D		M7274.D		M7292.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.08032	0.07857	-2.2	0.09600	19.5	0.07770	-3.3
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	3.6	4.7	3.1		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

Battelle

The Business of Innovation

CCV Summary Report

Batch: 14-0493 **Data Set:** DP-14-0675
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED

Calibration File: MM0417B.M **Last Updated:** 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7336.D		M7366.D		M7614.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						10/30/2014 00:41		10/31/2014 12:18		11/15/2014 17:13	
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.08016	0.07077	-11.7	0.08039	0.3	0.07247	-9.6
3	Cl3(18)		1	Y	0.08032	0.07138	-11.1	0.08189	2.0	0.07231	-10.0
4	Cl3(34)	s	1	Y	0.08000	0.07267	-9.2	0.07633	-4.6	0.07379	-7.8
5	Cl3(28)		1	Y	0.08032	0.07520	-6.4	0.07849	-2.3	0.07473	-7.0
6	Cl4(52)		1	Y	0.08008	0.07414	-7.4	0.07784	-2.8	0.07322	-8.6
7	Cl4(44)		1	Y	0.08032	0.07592	-5.5	0.07662	-4.6	0.07575	-5.7
8	Cl4(66)		1	Y	0.08016	0.07483	-6.6	0.07726	-3.6	0.07176	-10.5
9	Cl5(101)		1	Y	0.08016	0.07239	-9.7	0.07582	-5.4	0.07778	-3.0
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.08032	0.08224	2.4	0.08356	4.0	0.08219	2.3
12	Cl5(118)		1	Y	0.08032	0.07567	-5.8	0.08224	2.4	0.07140	-11.1
13	Cl6(153)		1	Y	0.08032	0.08346	3.9	0.07782	-3.1	0.07584	-5.6
14	Cl5(105)		1	Y	0.08024	0.07595	-5.3	0.07944	-1.0	0.07429	-7.4
15	Cl6(138)		1	Y	0.08032	0.07814	-2.7	0.08105	0.9	0.07633	-5.0
16	Cl7(187)		1	Y	0.08032	0.08215	2.3	0.08042	0.1	0.07808	-2.8
17	Cl6(128)		1	Y	0.08032	0.07144	-11.1	0.07541	-6.1	0.08026	-0.1
18	Cl7(180)		1	Y	0.08032	0.07931	-1.3	0.07946	-1.1	0.07838	-2.4
19	Cl7(170)		1	Y	0.08032	0.07840	-2.4	0.07969	-0.8	0.07795	-3.0
20	Cl8(195)		1	Y	0.08032	0.08041	0.1	0.07976	-0.7	0.08042	0.1
21	Cl9(206)		1	Y	0.08016	0.07902	-1.4	0.07833	-2.3	0.08048	0.4
22	Cl10(209)		1	Y	0.08032	0.07819	-2.7	0.07835	-2.5	0.08152	1.5
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.08016	0.07344	-8.4	0.07981	-0.4	0.07001	-12.7
26	Cl3(18)		2	Y	0.08032	0.07504	-6.6	0.08020	-0.1	0.07231	-10.0
27	Cl3(34)	s	2	Y	0.08000	0.07384	-7.7	0.07965	-0.4	0.07285	-8.9
28	Cl3(28)		2	Y	0.08032	0.07188	-10.5	0.07883	-1.9	0.06999	-12.9
29	Cl4(52)		2	Y	0.08008	0.07064	-11.8	0.07573	-5.4	0.07005	-12.5
30	Cl4(44)		2	Y	0.08032	0.07663	-4.6	0.08710	8.4	0.08037	0.1
31	Cl4(66)		2	Y	0.08016	0.07900	-1.4	0.07734	-3.5	0.07808	-2.6
32	Cl5(101)		2	Y	0.08016	0.07763	-3.2	0.07804	-2.6	0.08609	7.4
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.08032	0.08804	9.6	0.07806	-2.8	0.08852	10.2
35	Cl5(118)		2	Y	0.08032	0.08199	2.1	0.07593	-5.5	0.08126	1.2
36	Cl6(153)		2	Y	0.08032	0.07715	-3.9	0.07930	-1.3	0.07587	-5.5
37	Cl5(105)		2	Y	0.08024	0.07846	-2.2	0.08023	0.0	0.07706	-4.0
38	Cl6(138)		2	Y	0.08032	0.08475	5.5	0.07407	-7.8	0.08038	0.1
39	Cl7(187)		2	Y	0.08032	0.08068	0.4	0.08126	1.2	0.08036	0.0
40	Cl6(128)		2	Y	0.08032	0.08038	0.1	0.08143	1.4	0.08039	0.1
41	Cl7(180)		2	Y	0.08032	0.08027	-0.1	0.08118	1.1	0.08380	4.3
42	Cl7(170)		2	Y	0.08032	0.08012	-0.2	0.07910	-1.5	0.08437	5.0
43	Cl8(195)		2	Y	0.08032	0.08046	0.2	0.07868	-2.0	0.08685	8.1
44	Cl9(206)		2	Y	0.08016	0.07981	-0.4	0.07747	-3.4	0.08926	11.4

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417B.M Last Updated: 10/28/2014 9:02:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7336.D		M7366.D		M7614.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.08032	0.07953	-1.0	0.07800	-2.9	0.09044	12.6
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.7	2.6	5.8		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: <u>14-0493</u>	Data Set: <u>DP-14-0675</u>
Project Test Code: <u>Master 128(S)</u>	SOP_NO: <u>5-128-13</u>
Project Name: <u>USACE/NAE - New Bedford Harbor LTM Study</u>	Project Number: <u>100053747</u>

Matrix: SED
Calibration File: MM0417F.M **Last Updated:** 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7263.D		M7274K.D		M7285.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						IE07 mid 10/26/2014 17:09		IE07 mid 10/27/2014 09:31		IE07 mid 10/27/2014 17:41	
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.04008	0.03830	-4.4	0.03899	-2.7	0.03900	-2.7
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.04008	0.03850	-3.9	0.03818	-4.7	0.04268	6.5
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.2	3.7	4.6		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7364.D

IE07 mid

10/31/2014 10:49

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.04008	0.04531	13.0
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.04008	0.04269	6.5

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: **9.8**
Time Check: **< 24**

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7252.D		M7274.D		M7292.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						IE08 mid	IE08 mid	IE08 mid			
						10/26/2014 08:59	10/27/2014 01:19	10/27/2014 22:52			
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.08016	0.07905	-1.4	0.07740	-3.4	0.07258	-9.5
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.08016	0.07520	-6.2	0.07226	-9.9	0.07319	-8.7
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	3.8	6.7	9.1		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

CCV Summary Report

Batch: 14-0493 Data Set: DP-14-0675
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7366.D
IE08 mid
10/31/2014 12:18

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.08016	0.07937	-1.0
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.08016	0.07734	-3.5

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: **2.3**
Time Check: **< 24**

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:01:47 2014
 Response via : Initial Calibration
 RIS/SIS Mult : 1.000
 Total Cpnds : 45

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound		IE03	IE05	IE06	IE07	IE08	IE10
1 I	Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2	Cl2(8)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3	Cl3(18)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
4 s	Cl3(34)	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
5	Cl3(28)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
6	Cl4(52)	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
7	Cl4(44)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
8	Cl4(66)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
9	Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
10 I	Cl6(161)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
11 s	Cl6(152)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
12	Cl5(118)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
13	Cl6(153)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
14	Cl5(105)	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
15	Cl6(138)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
16	Cl7(187)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
17	Cl6(128)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
18	Cl7(180)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
19	Cl7(170)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
20	Cl8(195)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
21	Cl9(206)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
22	Cl10(209)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
23	Signal #2	-----	-----	-----	-----	-----	-----
24 I	Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
25	Cl2(8) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
26	Cl3(18) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
27 s	Cl3(34) #2	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
28	Cl3(28) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
29	Cl4(52) #2	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
30	Cl4(44) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
31	Cl4(66) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
32	Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
33 I	Cl6(161) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
34 s	Cl6(152) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
35	Cl5(118) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
36	Cl6(153) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
37	Cl5(105) #2	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
38	Cl6(138) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
39	Cl7(187) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
40	Cl6(128) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
41	Cl7(180) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
42	Cl7(170) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
43	Cl8(195) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
44	Cl9(206) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
45	Cl10(209) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015

Approval Date: Not Approved
Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 RIS/SIS Mult : 1.000
 Total Cpnds : 5

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound		IE03	IE05	IE06	IE07	IE08	IE10
1 I	Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2	Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3	Signal #2	-----	-----	-----	-----	-----	-----
4 I	Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
5	Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2021371m	0.10000	ng
10) I C16(161)	23.21	4304957	0.10000	ng
24) I C15(96) #2	20.51	12822282m	0.10000	ng
33) I C16(161) #2	26.79	28199596m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	119959m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
11) s C16(152)	20.48	106015	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
27) s C13(34) #2	16.48	687843m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
34) s C16(152) #2	23.58	473925m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	49812m	BelowCal	ng
3) C13(18)	12.13	63919m	BelowCal	ng
5) C13(28)	14.21	91859m	BelowCal	ng
6) C14(52)	15.84	129752	BelowCal	ng
7) C14(44)	16.70	95909	BelowCal	ng
8) C14(66)	18.60	103819m	BelowCal	ng
9) C15(101)	19.73	90878m	BelowCal	ng
12) C15(118)	22.40	106241m	BelowCal	ng
13) C16(153)	23.43 TW	91576m	BelowCal	ng
14) C15(105)	23.44 TW	124823m	BelowCal	ng
15) C16(138)	24.53	127136m	BelowCal	ng
16) C17(187)	25.29	111442m	BelowCal	ng
17) C16(128)	25.63	120454m	BelowCal	ng
18) C17(180)	27.16	127788	BelowCal	ng
19) C17(170)	27.96	138646m	BelowCal	ng
20) C18(195)	29.04	129501	BelowCal	ng
21) C19(206)	30.30	121956m	BelowCal	ng
22) C110(209)	30.90	102714m	BelowCal	ng
25) C12(8) #2	13.11	291232m	BelowCal	ng
26) C13(18) #2	15.00	430280m	BelowCal	ng
28) C13(28) #2	17.76	635375m	BelowCal	ng
29) C14(52) #2	19.15f	407881m	BelowCal	ng
30) C14(44) #2	19.96	700530m	BelowCal	ng
31) C14(66) #2	22.36	702095m	BelowCal	ng
32) C15(101) #2	23.30f	369053m	BelowCal	ng
35) C15(118) #2	26.37	931211m	BelowCal	ng
36) C16(153) #2	26.93	730887	BelowCal	ng
37) C15(105) #2	27.20	816392	BelowCal	ng
38) C16(138) #2	27.78	461727m	BelowCal	ng
39) C17(187) #2	28.14	667680	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	C16(128) #2	28.54	880477m	BelowCal	ng
41)	C17(180) #2	29.58	788251m	BelowCal	ng
42)	C17(170) #2	30.21	800002m	BelowCal	ng
43)	C18(195) #2	31.08	715719m	BelowCal	ng
44)	C19(206) #2	32.18	637238m	BelowCal	ng
45)	C110(209) #2	32.62	518551m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
10) I C16(161)	23.21	4562564	0.10000	ng
24) I C15(96) #2	20.51	12416297m	0.10000	ng
33) I C16(161) #2	26.79	27129752m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.39	297705	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
11) s C16(152)	20.48	348526	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
27) s C13(34) #2	16.47	1801754m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
34) s C16(152) #2	23.57	1960933m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	180784	BelowCal	ng
3) C13(18)	12.12	242567	BelowCal	ng
5) C13(28)	14.21	356002	BelowCal	ng
6) C14(52)	15.83	330341	BelowCal	ng
7) C14(44)	16.70	371149	BelowCal	ng
8) C14(66)	18.60	419278	BelowCal	ng
9) C15(101)	19.73	349240m	BelowCal	ng
12) C15(118)	22.39	435665	BelowCal	ng
13) C16(153)	23.43 TW	390283m	BelowCal	ng
14) C15(105)	23.44 TW	495013m	BelowCal	ng
15) C16(138)	24.54	508129	BelowCal	ng
16) C17(187)	25.29	449817	BelowCal	ng
17) C16(128)	25.63	436637m	BelowCal	ng
18) C17(180)	27.16	515383	BelowCal	ng
19) C17(170)	27.96	571467	BelowCal	ng
20) C18(195)	29.04	524255m	BelowCal	ng
21) C19(206)	30.30	492822m	BelowCal	ng
22) C110(209)	30.90	411674m	BelowCal	ng
25) C12(8) #2	13.11	1082243m	BelowCal	ng
26) C13(18) #2	14.99	1474380m	BelowCal	ng
28) C13(28) #2	17.76	2242630m	BelowCal	ng
29) C14(52) #2	19.14	1313663m	BelowCal	ng
30) C14(44) #2	19.96	2184906m	BelowCal	ng
31) C14(66) #2	22.36	2512274m	BelowCal	ng
32) C15(101) #2	23.22f	2401459m	BelowCal	ng
35) C15(118) #2	26.34	1802006m	BelowCal	ng
36) C16(153) #2	26.93	2453717	BelowCal	ng
37) C15(105) #2	27.20	2870795	BelowCal	ng
38) C16(138) #2	27.78	1892629m	BelowCal	ng
39) C17(187) #2	28.14	2289736	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3074334	BelowCal	ng
41)	Cl7(180) #2	29.58	2699532	BelowCal	ng
42)	Cl7(170) #2	30.21	2859094m	BelowCal	ng
43)	Cl8(195) #2	31.08	2571011m	BelowCal	ng
44)	Cl9(206) #2	32.18	2275330m	BelowCal	ng
45)	Cl10(209) #2	32.62	1828475m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
10) I C16(161)	23.21	4815577	0.10000	ng
24) I C15(96) #2	20.51	13716870m	0.10000	ng
33) I C16(161) #2	26.79	29503850m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	526303	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
11) s C16(152)	20.48	653892	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
27) s C13(34) #2	16.47	3296041m	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
34) s C16(152) #2	23.58	3413733m	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.20	333163	BelowCal	ng
3) C13(18)	12.12	432057	BelowCal	ng
5) C13(28)	14.21	687914	BelowCal	ng
6) C14(52)	15.83	566807	BelowCal	ng
7) C14(44)	16.70	718063	BelowCal	ng
8) C14(66)	18.60	781317	BelowCal	ng
9) C15(101)	19.73	762207m	BelowCal	ng
12) C15(118)	22.39	822121	0.03093	ng
13) C16(153)	23.43 TW	582042m	BelowCal	ng
14) C15(105)	23.44 TW	965663m	BelowCal	ng
15) C16(138)	24.53	972641	BelowCal	ng
16) C17(187)	25.29	855745	BelowCal	ng
17) C16(128)	25.63	864076m	BelowCal	ng
18) C17(180)	27.16	964577	BelowCal	ng
19) C17(170)	27.96	1081580	BelowCal	ng
20) C18(195)	29.04	1016052	0.02214	ng
21) C19(206)	30.30 e	959902m	BelowCal	ng
22) C110(209)	30.90	792978	BelowCal	ng
25) C12(8) #2	13.10	2106184m	BelowCal	ng
26) C13(18) #2	14.99	2769502m	BelowCal	ng
28) C13(28) #2	17.76	4386422m	BelowCal	ng
29) C14(52) #2	19.14	2862174m	BelowCal	ng
30) C14(44) #2	19.96	4484836m	BelowCal	ng
31) C14(66) #2	22.35	4845930m	BelowCal	ng
32) C15(101) #2	23.22f	5513291m	BelowCal	ng
35) C15(118) #2	26.35	4335255m	BelowCal	ng
36) C16(153) #2	26.93	4720338	1858066.56915	ng
37) C15(105) #2	27.20	5791618	1122307.10620	ng
38) C16(138) #2	27.78	3691173m	BelowCal	ng
39) C17(187) #2	28.14	4540027	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	6164428	BelowCal	ng
41)	Cl7(180) #2	29.58	5451699	BelowCal	ng
42)	Cl7(170) #2	30.21	5828332m	1341992.36163	ng
43)	Cl8(195) #2	31.08	5312720	BelowCal	ng
44)	Cl9(206) #2	32.18	4740147m	BelowCal	ng
45)	Cl10(209) #2	32.62	3772500m	1559880.63544	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
10) I C16(161)	23.21	5366502	0.10000	ng
24) I C15(96) #2	20.51	14992953m	0.10000	ng
33) I C16(161) #2	26.79	34497986	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	990336	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
11) s C16(152)	20.48	1280995	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
27) s C13(34) #2	16.47	6281919m	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
34) s C16(152) #2	23.58	7591525m	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	e	607269	BelowCal ng
3) C13(18)	12.12	e	758928	BelowCal ng
5) C13(28)	14.21	e	1349346	BelowCal ng
6) C14(52)	15.83	e	1019304	BelowCal ng
7) C14(44)	16.70	e	1370610	4937947.47625 ng
8) C14(66)	18.60	e	1544814	BelowCal ng
9) C15(101)	19.73	e	1552699m	BelowCal ng
12) C15(118)	22.39	e	1625326	BelowCal ng
13) C16(153)	23.43	TW	1671077m	BelowCal ng
14) C15(105)	23.44	TW	2067241m	BelowCal ng
15) C16(138)	24.53	E	1975640	BelowCal ng
16) C17(187)	25.29	e	1704362m	BelowCal ng
17) C16(128)	25.63	e	1845001m	BelowCal ng
18) C17(180)	27.16	E	2019174m	BelowCal ng
19) C17(170)	27.96	E	2282709	3008040.19192 ng
20) C18(195)	29.04	E	2138682m	BelowCal ng
21) C19(206)	30.30	E	2074698m	BelowCal ng
22) C110(209)	30.90	E	1700197m	BelowCal ng
25) C12(8) #2	13.10	e	4038278m	BelowCal ng
26) C13(18) #2	14.99	e	4609294m	BelowCal ng
28) C13(28) #2	17.76	e	8581359m	2635734.36911 ng
29) C14(52) #2	19.14	e	4960711m	BelowCal ng
30) C14(44) #2	19.96	e	8717176m	1574158.07943 ng
31) C14(66) #2	22.36	e	9936993m	BelowCal ng
32) C15(101) #2	23.21f	e	12947398m	BelowCal ng
35) C15(118) #2	26.35	e	9808234m	BelowCal ng
36) C16(153) #2	26.93	E	9577231	5152267.10485 ng
37) C15(105) #2	27.20	E	12760987	3375570.13183 ng
38) C16(138) #2	27.78	e	8526537m	1389497.67562 ng
39) C17(187) #2	28.14	E	9590626	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	13380771	BelowCal ng
41)	Cl7(180) #2	29.58	E	11878441m	BelowCal ng
42)	Cl7(170) #2	30.21	E	12986040m	4087411.97930 ng
43)	Cl8(195) #2	31.08	E	11911883m	BelowCal ng
44)	Cl9(206) #2	32.18	E	10701956m	BelowCal ng
45)	Cl10(209) #2	32.62	E	8387432m	5983940.61406 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
10) I C16(161)	23.21	5424577	0.10000	ng
24) I C15(96) #2	20.51	15446142m	0.10000	ng
33) I C16(161) #2	26.79	34872167	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1861197	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
11) s C16(152)	20.48	2391536	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
27) s C13(34) #2	16.47	12156621m	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
34) s C16(152) #2	23.57	13279030m	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 1130878	BelowCal	ng
3) C13(18)	12.12	E 1399997	BelowCal	ng
5) C13(28)	14.21	E 2563059	BelowCal	ng
6) C14(52)	15.83	E 1879706	BelowCal	ng
7) C14(44)	16.70	E 2546734m	8209713.15303	ng
8) C14(66)	18.60	E 2898127	BelowCal	ng
9) C15(101)	19.74	E 2892299m	BelowCal	ng
12) C15(118)	22.39	E 2978206	BelowCal	ng
13) C16(153)	23.44	TW e 2876946m	BelowCal	ng
14) C15(105)	23.45	TW e 3582092m	1460512.29312	ng
15) C16(138)	24.54	E 3695490	BelowCal	ng
16) C17(187)	25.29	E 3239289	BelowCal	ng
17) C16(128)	25.64	E 3673746m	3005443.36077	ng
18) C17(180)	27.15	E 3855848m	BelowCal	ng
19) C17(170)	27.96	E 4378231	5123824.53354	ng
20) C18(195)	29.04	E 4116319m	BelowCal	ng
21) C19(206)	30.31	E 3960506m	BelowCal	ng
22) C110(209)	30.90	E 3217630m	BelowCal	ng
25) C12(8) #2	13.10	E 7701304	BelowCal	ng
26) C13(18) #2	14.99	E 8745402m	BelowCal	ng
28) C13(28) #2	17.76	E 16942159	4721046.44848	ng
29) C14(52) #2	19.14	E 9969394	3586542.90657	ng
30) C14(44) #2	19.96	E 17386149m	5402544.89334	ng
31) C14(66) #2	22.35	E 19075871m	BelowCal	ng
32) C15(101) #2	23.21f	E 25811518m	BelowCal	ng
35) C15(118) #2	26.35	e 16530172m	BelowCal	ng
36) C16(153) #2	26.93	E 17723976	8475069.04022	ng
37) C15(105) #2	27.20	E 24719069	5584053.95798	ng
38) C16(138) #2	27.78	E 17133888m	4026737.36316	ng
39) C17(187) #2	28.14	E 18398636	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	26047859	BelowCal ng
41)	Cl7(180) #2	29.58	E	23443478m	BelowCal ng
42)	Cl7(170) #2	30.21	E	25601551m	6820215.95092 ng
43)	Cl8(195) #2	31.08	E	23548017m	BelowCal ng
44)	Cl9(206) #2	32.18	E	21216572m	BelowCal ng
45)	Cl10(209) #2	32.62	E	16438463m	10094597.27940 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2857033m	0.10000	ng
10) I C16(161)	23.21	5785136	0.10000	ng
24) I C15(96) #2	20.51	15534608m	0.10000	ng
33) I C16(161) #2	26.79	28894537	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6582490m	BelowCal	ng
Spiked Amount	0.3200	Recovery	=	0.00%
11) s C16(152)	20.48	8920810	BelowCal	ng
Spiked Amount	0.3213	Recovery	=	0.00%
27) s C13(34) #2	16.47	39634387m	BelowCal	ng
Spiked Amount	0.3200	Recovery	=	0.00%
34) s C16(152) #2	23.57	49764814m	BelowCal	ng
Spiked Amount	0.3213	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 3802803	BelowCal	ng
3) C13(18)	12.12	E 4625770	BelowCal	ng
5) C13(28)	14.20	E 9305861	BelowCal	ng
6) C14(52)	15.83	E 6491550m	BelowCal	ng
7) C14(44)	16.70	E 9213228m	16878676.73504	ng
8) C14(66)	18.60	E 10581706	BelowCal	ng
9) C15(101)	19.74	E 11214785m	BelowCal	ng
12) C15(118)	22.39	E 10845273	BelowCal	ng
13) C16(153)	23.44	TW E 11086255m	BelowCal	ng
14) C15(105)	23.45	TW E 12238036m	4834222.71684	ng
15) C16(138)	24.54	E 14181010	BelowCal	ng
16) C17(187)	25.28	E 12362255m	BelowCal	ng
17) C16(128)	25.63	E 13614003m	7619432.15592	ng
18) C17(180)	27.16	E 15356923	BelowCal	ng
19) C17(170)	27.96	E 17491960	11231671.25949	ng
20) C18(195)	29.04	E 16570469m	BelowCal	ng
21) C19(206)	30.30	E 15913312m	BelowCal	ng
22) C110(209)	30.90	E 12593895m	BelowCal	ng
25) C12(8) #2	13.10	E 24205484m	BelowCal	ng
26) C13(18) #2	14.99	E 27041957m	BelowCal	ng
28) C13(28) #2	17.76	E 56387566m	9817113.52330	ng
29) C14(52) #2	19.14	E 31213496m	8327658.06829	ng
30) C14(44) #2	19.96	E 56797595m	12385262.50102	ng
31) C14(66) #2	22.36	E 65508405m	BelowCal	ng
32) C15(101) #2	23.21f	E 73990498m	BelowCal	ng
35) C15(118) #2	26.34	E 53052856m	BelowCal	ng
36) C16(153) #2	26.93	E 58782173	19272949.92145	ng
37) C15(105) #2	27.20	E 87183647	12882056.53676	ng
38) C16(138) #2	27.78	E 63446136m	10766758.70710	ng
39) C17(187) #2	28.14	E 63573730	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	91431997	BelowCal ng
41)	Cl7(180) #2	29.58	E	83277221m	BelowCal ng
42)	Cl7(170) #2	30.21	E	91217127m	15760612.61828 ng
43)	Cl8(195) #2	31.08	E	84844015m	BelowCal ng
44)	Cl9(206) #2	32.17	E	76001510m	BelowCal ng
45)	Cl10(209) #2	32.62	E	57560994m	23285632.07742 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:08:24 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:08:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
10) I C16(161)	23.21	5353469	0.10000	ng	
24) I C15(96) #2	20.51	13890681m	0.10000	ng	
33) I C16(161) #2	26.78	30447371	0.10000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	1040909	0.04104	ng	2.6
Spiked Amount	0.0400	Recovery	=	102.60%	
11) s C16(152)	20.48	1350202	0.04329	ng	7.8
Spiked Amount	0.0402	Recovery	=	107.79%	
27) s C13(34) #2	16.47	6071669m	0.04152	ng	3.8
Spiked Amount	0.0400	Recovery	=	103.80%	
34) s C16(152) #2	23.57	6025638m	0.03915	ng	-2.5
Spiked Amount	0.0402	Recovery	=	97.49%	
Target Compounds					
2) C12(8)	10.21	664551	0.04326	ng	8.1
3) C13(18)	12.12	802051	0.04152	ng	3.8
5) C13(28)	14.21	1396518	0.04098	ng	2.5
6) C14(52)	15.83	1070948	0.04112	ng	2.8
7) C14(44)	16.70	1429186m	0.04174	ng	4.3
8) C14(66)	18.60	1565208	0.04028	ng	0.7
9) C15(101)	19.73	1499968m	0.03910	ng	-2.2
12) C15(118)	22.39	1611882m	0.04107	ng	2.7
13) C16(153)	23.43	1591269m	0.04280	ng	7.0
14) C15(105)	23.45	2054363m	0.04305	ng	7.6
15) C16(138)	24.53	2023467	0.04232	ng	5.8
16) C17(187)	25.29	1772269m	0.04241	ng	6.0
17) C16(128)	25.63	1904336m	0.04114	ng	2.9
18) C17(180)	27.15	2038700	0.04138	ng	3.4
19) C17(170)	27.96	2269675	0.04068	ng	1.7
20) C18(195)	29.04	2114012	0.04040	ng	1.0
21) C19(206)	30.30	1967154m	0.03895	ng	-2.6
22) C110(209)	30.90	1614120m	0.03913	ng	-2.2
25) C12(8) #2	13.10	3960492m	0.04291	ng	7.3
26) C13(18) #2	14.99	4436975m	0.04109	ng	2.7
28) C13(28) #2	17.76	8142047m	0.04080	ng	2.0
29) C14(52) #2	19.14	4805026m	0.04033	ng	0.8
30) C14(44) #2	19.96	8521886m	0.04180	ng	4.5
31) C14(66) #2	22.35	9158420m	0.04056	ng	1.4
32) C15(101) #2	23.61	4986106m	0.03896	ng	-2.6
35) C15(118) #2	26.35	8407438m	0.04348	ng	8.7
36) C16(153) #2	26.93	8835029	0.04347	ng	8.7
37) C15(105) #2	27.20	11477578	0.04183	ng	4.6
38) C16(138) #2	27.78	7720544m	0.04162	ng	4.0
39) C17(187) #2	28.14	8806327	0.04269	ng	6.7

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:08:24 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:08:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	11966492m	0.04138	ng	3.4
41)	Cl7(180) #2	29.58	10536920m	0.04075	ng	1.9
42)	Cl7(170) #2	30.21	11469447m	0.04076	ng	1.9
43)	Cl8(195) #2	31.08	10221363m	0.03962	ng	-0.9
44)	Cl9(206) #2	32.18	9066556m	0.03899	ng	-2.5
45)	Cl10(209) #2	32.62	7097272m	0.03909	ng	-2.3

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7252.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0418\M7252.D\ECD2B.CH
 Acq On : 10-26-2014 08:58:30 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:13:49 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:08:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2503423	0.10000	ng
10) I C16(161)	23.22	5514363m	0.10000	ng
24) I C15(96) #2	20.52	13940421m	0.10000	ng
33) I C16(161) #2	26.80	30692359	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1786348	0.07634	ng
Spiked Amount	0.0800	Recovery	=	95.43%
11) s C16(152)	20.49	2397242	0.07834	ng
Spiked Amount	0.0803	Recovery	=	97.53%
27) s C13(34) #2	16.48	10812858m	0.07866	ng
Spiked Amount	0.0800	Recovery	=	98.32%
34) s C16(152) #2	23.59	12298867m	0.08199	ng
Spiked Amount	0.0803	Recovery	=	102.08%
Target Compounds				
2) C12(8)	10.21	1065721	0.07434	ng
3) C13(18)	12.13	1303579	0.07323	ng
5) C13(28)	14.21	2462685	0.07644	ng
6) C14(52)	15.84	1763674	0.07409	ng
7) C14(44)	16.71	2459049m	0.07642	ng
8) C14(66)	18.61	2795536	0.07641	ng
9) C15(101)	19.74	2978673m	0.08166	ng
12) C15(118)	22.40	2939278	0.07659	ng
13) C16(153)	23.44	2851889m	0.07640	ng
14) C15(105)	23.46	4055184m	0.08807	ng
15) C16(138)	24.55	3685196	0.07777	ng
16) C17(187)	25.30	3223852	0.07786	ng
17) C16(128)	25.65	3834265m	0.08282	ng
18) C17(180)	27.16	3872506m	0.07869	ng
19) C17(170)	27.97	4356203	0.07797	ng
20) C18(195)	29.05	4091459	0.07792	ng
21) C19(206)	30.31	3873998m	0.07637	ng
22) C110(209)	30.91	3134450m	0.07609	ng
25) C12(8) #2	13.11	6949443m	0.07949	ng
26) C13(18) #2	15.00	7558784m	0.07574	ng
28) C13(28) #2	17.77	14741098m	0.07708	ng
29) C14(52) #2	19.15	9127959	0.08149	ng
30) C14(44) #2	19.97	15241569m	0.07792	ng
31) C14(66) #2	22.37	17606458	0.08148	ng
32) C15(101) #2	23.62	10257493m	0.08262	ng
35) C15(118) #2	26.36	14513458m	0.07746	ng
36) C16(153) #2	26.94	15475365	0.07835	ng
37) C15(105) #2	27.21	21829898	0.07977	ng
38) C16(138) #2	27.79	16156800m	0.08555	ng
39) C17(187) #2	28.15	16073547	0.07888	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7252.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0418\M7252.D\ECD2B.CH
 Acq On : 10-26-2014 08:58:30 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:13:49 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:08:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	22838498	0.07937	ng
41)	Cl7(180) #2	29.59	20389927m	0.07892	ng
42)	Cl7(170) #2	30.22	22180553m	0.07858	ng
43)	Cl8(195) #2	31.09	20283782m	0.07814	ng
44)	Cl9(206) #2	32.19	18214661m	0.07778	ng
45)	Cl10(209) #2	32.63	14251743m	0.07857	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7263.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0418\M7263.D\ECD2B.CH
 Acq On : 10-26-2014 05:08:44 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:13:56 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:13:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3503800	0.10000	ng
10) I C16(161)	23.22	8118012m	0.10000	ng
24) I C15(96) #2	20.52	16568807m	0.10000	ng
33) I C16(161) #2	26.80	37993668	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	1437727	0.04052	ng
Spiked Amount	0.0400	Recovery	=	101.30%
11) s C16(152)	20.49	1921394	0.04036	ng
Spiked Amount	0.0402	Recovery	=	100.50%
27) s C13(34) #2	16.48	7136057m	0.04083	ng
Spiked Amount	0.0400	Recovery	=	102.07%
34) s C16(152) #2	23.59	7696122m	0.04015	ng
Spiked Amount	0.0402	Recovery	=	99.98%
Target Compounds				
2) C12(8)	10.21	868947	0.04011	ng
3) C13(18)	12.13	1058864	0.03887	ng
5) C13(28)	14.21	2025344	0.04271	ng
6) C14(52)	15.84	1466882	0.04017	ng
7) C14(44)	16.71	1991986m	0.04165	ng
8) C14(66)	18.61	2306786	0.04275	ng
9) C15(101)	19.74	1952929m	0.03627	ng
12) C15(118)	22.40	2400500	0.04026	ng
13) C16(153)	23.44	2108293m	0.03717	ng
14) C15(105)	23.46	2968388m	0.04083	ng
15) C16(138)	24.55	2925235	0.04020	ng
16) C17(187)	25.30	2552168	0.04012	ng
17) C16(128)	25.64	2638684m	0.03747	ng
18) C17(180)	27.17	2968602	0.03964	ng
19) C17(170)	27.97	3373831	0.03984	ng
20) C18(195)	29.05	3149817m	0.03966	ng
21) C19(206)	30.31	2922276m	0.03812	ng
22) C110(209)	30.91	2339888m	0.03732	ng
25) C12(8) #2	13.11	4561872m	0.04129	ng
26) C13(18) #2	15.00	5156064m	0.03985	ng
28) C13(28) #2	17.77	9988715m	0.04205	ng
29) C14(52) #2	19.15	6002326m	0.04244	ng
30) C14(44) #2	19.98	9163315m	0.03739	ng
31) C14(66) #2	22.37	11500561	0.04287	ng
32) C15(101) #2	23.62	5974779m	0.03915	ng
35) C15(118) #2	26.36	8987133m	0.03668	ng
36) C16(153) #2	26.94	10071213	0.03936	ng
37) C15(105) #2	27.21	13745795	0.04009	ng
38) C16(138) #2	27.79	9074995m	0.03919	ng
39) C17(187) #2	28.15	10325191	0.03997	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7263.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0418\M7263.D\ECD2B.CH
 Acq On : 10-26-2014 05:08:44 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:13:56 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:13:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	14435696	0.03995	ng
41)	Cl7(180) #2	29.59	12778433	0.03956	ng
42)	Cl7(170) #2	30.22	13677854	0.03891	ng
43)	Cl8(195) #2	31.09	12462122m	0.03869	ng
44)	Cl9(206) #2	32.19	11224530m	0.03868	ng
45)	Cl10(209) #2	32.63	8924903m	0.03940	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0418\M7274.D\ECD2B.CH
 Acq On : 10-27-2014 01:18:57 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:00 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:13:54 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3362143m	0.10000	ng
10) I C16(161)	23.22	7429783	0.10000	ng
24) I C15(96) #2	20.52	18505949m	0.10000	ng
33) I C16(161) #2	26.79	45692334m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2491417	0.07969	ng
Spiked Amount	0.0800	Recovery	=	99.61%
11) s C16(152)	20.48	3290632	0.07994	ng
Spiked Amount	0.0803	Recovery	=	99.53%
27) s C13(34) #2	16.48	14449670	0.07924	ng
Spiked Amount	0.0800	Recovery	=	99.05%
34) s C16(152) #2	23.58	18064587m	0.08088	ng
Spiked Amount	0.0803	Recovery	=	100.70%
Target Compounds				
2) C12(8)	10.21	1506346	0.07882	ng
3) C13(18)	12.13	1834874	0.07733	ng
5) C13(28)	14.21	3512519	0.08168	ng
6) C14(52)	15.84	2496428	0.07876	ng
7) C14(44)	16.70	3464514	0.08060	ng
8) C14(66)	18.60	3882994	0.07931	ng
9) C15(101)	19.74	3604900m	0.07302	ng
12) C15(118)	22.40	3934019	0.07604	ng
13) C16(153)	23.44	3665561m	0.07271	ng
14) C15(105)	23.46	4735340m	0.07516	ng
15) C16(138)	24.54	4939182	0.07733	ng
16) C17(187)	25.29	4344792	0.07789	ng
17) C16(128)	25.64	4808789m	0.07680	ng
18) C17(180)	27.16	5154531	0.07769	ng
19) C17(170)	27.96	5875809	0.07806	ng
20) C18(195)	29.04	5610737	0.07936	ng
21) C19(206)	30.31	5298349m	0.07757	ng
22) C110(209)	30.90	4237055	0.07636	ng
25) C12(8) #2	13.11	8893245	0.07632	ng
26) C13(18) #2	15.00	9741092m	0.07320	ng
28) C13(28) #2	17.77	19864430	0.07834	ng
29) C14(52) #2	19.15	11820115	0.07927	ng
30) C14(44) #2	19.97	21307258m	0.08243	ng
31) C14(66) #2	22.36	23651514	0.08252	ng
32) C15(101) #2	23.61	14030001m	0.08514	ng
35) C15(118) #2	26.35	20609489m	0.07367	ng
36) C16(153) #2	26.94	21761396	0.07380	ng
37) C15(105) #2	27.21	31342488	0.07693	ng
38) C16(138) #2	27.79	23196299m	0.08260	ng
39) C17(187) #2	28.14	23655515	0.07797	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0418\M7274.D\ECD2B.CH
 Acq On : 10-27-2014 01:18:57 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:00 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:13:54 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	34154961	0.07973	ng
41)	Cl7(180) #2	29.59	32762203	0.08514	ng
42)	Cl7(170) #2	30.22	36211341m	0.08610	ng
43)	Cl8(195) #2	31.09	35032590m	0.09044	ng
44)	Cl9(206) #2	32.18	33515264m	0.09579	ng
45)	Cl10(209) #2	32.62	25950761m	0.09600	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274K.D\ECD1A.CH Vial: 53
 Signal #2 : I:\M\DATA\SM0418\M7274K.D\ECD2B.CH
 Acq On : 10-27-2014 09:31:18 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:13:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3216545m	0.10000	ng
10) I C16(161)	23.21	7289019m	0.10000	ng
24) I C15(96) #2	20.52	16037807m	0.10000	ng
33) I C16(161) #2	26.79	38634922	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1377315	0.04257	ng
Spiked Amount	0.0400	Recovery	=	106.43%
11) s C16(152)	20.48	1845541	0.04348	ng
Spiked Amount	0.0402	Recovery	=	108.27%
27) s C13(34) #2	16.48	6777755m	0.03997	ng
Spiked Amount	0.0400	Recovery	=	99.92%
34) s C16(152) #2	23.58	7897236m	0.04055	ng
Spiked Amount	0.0402	Recovery	=	100.97%
Target Compounds				
2) C12(8)	10.21	818081	0.04129	ng
3) C13(18)	12.13	1027546	0.04149	ng
5) C13(28)	14.21	1823428m	0.04180	ng
6) C14(52)	15.84	1412044	0.04252	ng
7) C14(44)	16.70	1821850m	0.04148	ng
8) C14(66)	18.60	2048135m	0.04120	ng
9) C15(101)	19.73	1843896m	0.03737	ng
12) C15(118)	22.39	2303186	0.04330	ng
13) C16(153)	23.43	1968039m	0.03871	ng
14) C15(105)	23.45	2798347m	0.04307	ng
15) C16(138)	24.54	2608199m	0.03990	ng
16) C17(187)	25.29	2300789m	0.04029	ng
17) C16(128)	25.63	2585873m	0.04103	ng
18) C17(180)	27.16	2678237m	0.03984	ng
19) C17(170)	27.96	3032793m	0.03989	ng
20) C18(195)	29.04	2896293m	0.04066	ng
21) C19(206)	30.31	2779662m	0.04049	ng
22) C110(209)	30.90	2241946m	0.03996	ng
25) C12(8) #2	13.11	4300554m	0.04010	ng
26) C13(18) #2	15.00	5344727m	0.04318	ng
28) C13(28) #2	17.76	9298975m	0.04032	ng
29) C14(52) #2	19.15	5612493m	0.04085	ng
30) C14(44) #2	19.97	9398637m	0.03979	ng
31) C14(66) #2	22.36	10911353m	0.04195	ng
32) C15(101) #2	23.62	5939590m	0.04031	ng
35) C15(118) #2	26.35	9522296m	0.03838	ng
36) C16(153) #2	26.94	10452037	0.04026	ng
37) C15(105) #2	27.20	14224543	0.04082	ng
38) C16(138) #2	27.78	9751293m	0.04142	ng
39) C17(187) #2	28.14	11046565	0.04218	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274K.D\ECD1A.CH Vial: 53
 Signal #2 : I:\M\DATA\SM0418\M7274K.D\ECD2B.CH
 Acq On : 10-27-2014 09:31:18 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:13:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	15543234	0.04239	ng
41)	Cl7(180) #2	29.59	13467680m	0.04105	ng
42)	Cl7(170) #2	30.22	14827824m	0.04155	ng
43)	Cl8(195) #2	31.09	13791431m	0.04217	ng
44)	Cl9(206) #2	32.18	12718289m	0.04316	ng
45)	Cl10(209) #2	32.62	9925761m	0.04320	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7274K.D MM0417B.M Tue Nov 18 09:46:56 2014 046776CFS

Signal #1 : I:\M\DATA\SM0418\M7285.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0418\M7285.D\ECD2B.CH
 Acq On : 10-27-2014 05:41:11 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:11 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:14:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3560529m	0.10000	ng
10) I C16(161)	23.21	8056736m	0.10000	ng
24) I C15(96) #2	20.52	19063819m	0.10000	ng
33) I C16(161) #2	26.79	46796149	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1419323	0.03918	ng
Spiked Amount	0.0400	Recovery	=	97.95%
11) s C16(152)	20.48	2001772	0.04259	ng
Spiked Amount	0.0402	Recovery	=	106.05%
27) s C13(34) #2	16.48	7900269m	0.03910	ng
Spiked Amount	0.0400	Recovery	=	97.75%
34) s C16(152) #2	23.58	9194485m	0.03884	ng
Spiked Amount	0.0402	Recovery	=	96.71%
Target Compounds				
2) C12(8)	10.21	848652	0.03832	ng
3) C13(18)	12.13	1077485	0.03893	ng
5) C13(28)	14.21	1969976	0.04071	ng
6) C14(52)	15.83	1480979	0.03986	ng
7) C14(44)	16.70	1963215m	0.04025	ng
8) C14(66)	18.60	2223034m	0.04032	ng
9) C15(101)	19.73	2080523m	0.03815	ng
12) C15(118)	22.39	2388827	0.04038	ng
13) C16(153)	23.43	2124222m	0.03776	ng
14) C15(105)	23.45	2782361m	0.03834	ng
15) C16(138)	24.54	2846476m	0.03935	ng
16) C17(187)	25.29	2555082m	0.04050	ng
17) C16(128)	25.63	3002704m	0.04319	ng
18) C17(180)	27.16	2939767m	0.03955	ng
19) C17(170)	27.96	3318038m	0.03946	ng
20) C18(195)	29.04	3153410m	0.04002	ng
21) C19(206)	30.31	2998194m	0.03947	ng
22) C110(209)	30.90	2438628m	0.03929	ng
25) C12(8) #2	13.11	4955540m	0.03875	ng
26) C13(18) #2	15.00	5951195m	0.03999	ng
28) C13(28) #2	17.76	10820707m	0.03940	ng
29) C14(52) #2	19.14	6573360m	0.04019	ng
30) C14(44) #2	19.97	11547178m	0.04123	ng
31) C14(66) #2	22.36	12974614m	0.04197	ng
32) C15(101) #2	23.62	7014452m	0.04002	ng
35) C15(118) #2	26.35	12112210m	0.04050	ng
36) C16(153) #2	26.94	12435810	0.03947	ng
37) C15(105) #2	27.20	16990498	0.04024	ng
38) C16(138) #2	27.78	11758001m	0.04124	ng
39) C17(187) #2	28.14	13077267	0.04117	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7285.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0418\M7285.D\ECD2B.CH
 Acq On : 10-27-2014 05:41:11 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:11 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:14:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	18347763	0.04127	ng
41)	Cl7(180) #2	29.59	16740597	0.04217	ng
42)	Cl7(170) #2	30.22	17839719m	0.04126	ng
43)	Cl8(195) #2	31.09	16328600m	0.04121	ng
44)	Cl9(206) #2	32.18	14637869m	0.04098	ng
45)	Cl10(209) #2	32.62	11386551m	0.04086	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7292.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0418\M7292.D\ECD2B.CH
 Acq On : 27 Oct 2014 10:52 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:15 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:14:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3877495m	0.10000	ng
10) I C16(161)	23.21	8907856m	0.10000	ng
24) I C15(96) #2	20.51	17840261m	0.10000	ng
33) I C16(161) #2	26.79	41573042	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2850515	0.07897	ng
Spiked Amount	0.0800	Recovery	=	98.71%
11) s C16(152)	20.48	3941268	0.07985	ng
Spiked Amount	0.0803	Recovery	=	99.41%
27) s C13(34) #2	16.48	13375004m	0.07574	ng
Spiked Amount	0.0800	Recovery	=	94.67%
34) s C16(152) #2	23.58	15276568m	0.07511	ng
Spiked Amount	0.0803	Recovery	=	93.51%
Target Compounds				
2) C12(8)	10.21	1659131	0.07478	ng
3) C13(18)	12.12	2110176	0.07708	ng
5) C13(28)	14.21	4071846	0.08215	ng
6) C14(52)	15.83	2919275	0.08004	ng
7) C14(44)	16.70	3956743m	0.07973	ng
8) C14(66)	18.60	4606732	0.08183	ng
9) C15(101)	19.73	4332682m	0.07633	ng
12) C15(118)	22.39	4861115	0.07858	ng
13) C16(153)	23.44 T	4516019m	0.07482	ng
14) C15(105)	23.44 T	6100029m	0.08137	ng
15) C16(138)	24.54	6041296	0.07900	ng
16) C17(187)	25.29	5324085	0.07972	ng
17) C16(128)	25.63	5690499m	0.07576	ng
18) C17(180)	27.16	6251172	0.07863	ng
19) C17(170)	27.96	6898741m	0.07638	ng
20) C18(195)	29.04	6650857m	0.07842	ng
21) C19(206)	30.30	6310296m	0.07704	ng
22) C110(209)	30.90	5064503m	0.07611	ng
25) C12(8) #2	13.10	8433483m	0.07494	ng
26) C13(18) #2	14.99	10343598m	0.08179	ng
28) C13(28) #2	17.76	18660001m	0.07617	ng
29) C14(52) #2	19.15	10623080m	0.07335	ng
30) C14(44) #2	19.97	18872195m	0.07518	ng
31) C14(66) #2	22.36	22209828m	0.08022	ng
32) C15(101) #2	23.61	12452627m	0.07833	ng
35) C15(118) #2	26.35	20223466m	0.07981	ng
36) C16(153) #2	26.93	21095796	0.07887	ng
37) C15(105) #2	27.20	29523132	0.07965	ng
38) C16(138) #2	27.78	21736878m	0.08499	ng
39) C17(187) #2	28.14	22444015	0.08136	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7292.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0418\M7292.D\ECD2B.CH
 Acq On : 27 Oct 2014 10:52 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 09:14:15 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:14:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	31702128	0.08134	ng
41)	Cl7(180) #2	29.58	27715972m	0.07920	ng
42)	Cl7(170) #2	30.21	30242255m	0.07909	ng
43)	Cl8(195) #2	31.09	27856868m	0.07921	ng
44)	Cl9(206) #2	32.18	24822090m	0.07825	ng
45)	Cl10(209) #2	32.62	19089884m	0.07770	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7325.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0419\M7325.D\ECD2B.CH
 Acq On : 10-29-2014 04:31:01 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:19:57 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:01:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3376347	0.10000	ng
10) I C16(161)	23.21	7434625m	0.10000	ng
24) I C15(96) #2	20.51	17137537m	0.10000	ng
33) I C16(161) #2	26.79	43563283m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1345754	0.03917	ng
Spiked Amount	0.0400	Recovery	=	97.93%
11) s C16(152)	20.48	1826723	0.04207	ng
Spiked Amount	0.0402	Recovery	=	104.76%
27) s C13(34) #2	16.48	7215229m	0.03980	ng
Spiked Amount	0.0400	Recovery	=	99.50%
34) s C16(152) #2	23.58	8575397m	0.03892	ng
Spiked Amount	0.0402	Recovery	=	96.91%
Target Compounds				
2) C12(8)	10.21	838113	0.04015	ng
3) C13(18)	12.13	1066567	0.04095	ng
5) C13(28)	14.21	1895508	0.04136	ng
6) C14(52)	15.83	1399630	0.03970	ng
7) C14(44)	16.70	1896300	0.04109	ng
8) C14(66)	18.60	2142062	0.04104	ng
9) C15(101)	19.74	1990467m	0.03851	ng
12) C15(118)	22.39	2254317	0.04139	ng
13) C16(153)	23.44 T	1999170m	0.03854	ng
14) C15(105)	23.44 T	2610463m	0.03904	ng
15) C16(138)	24.54	2750710	0.04136	ng
16) C17(187)	25.29	2411055	0.04148	ng
17) C16(128)	25.64	2514622m	0.03905	ng
18) C17(180)	27.16	2787782	0.04071	ng
19) C17(170)	27.96	3179528	0.04106	ng
20) C18(195)	29.04	3019706	0.04161	ng
21) C19(206)	30.31	2901602m	0.04148	ng
22) C110(209)	30.90	2359878m	0.04131	ng
25) C12(8) #2	13.11	4626634m	0.04040	ng
26) C13(18) #2	15.00	5156061m	0.03829	ng
28) C13(28) #2	17.76	9904290m	0.04018	ng
29) C14(52) #2	19.15	6024882m	0.04106	ng
30) C14(44) #2	19.97	9739277m	0.03850	ng
31) C14(66) #2	22.36	11692500m	0.04208	ng
32) C15(101) #2	23.62	5804172m	0.03655	ng
35) C15(118) #2	26.35	9809397m	0.03472	ng
36) C16(153) #2	26.94	11052976	0.03750	ng
37) C15(105) #2	27.20	15275388	0.03881	ng
38) C16(138) #2	27.78	10674172m	0.04021	ng
39) C17(187) #2	28.14	11686461	0.03942	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7325.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0419\M7325.D\ECD2B.CH
 Acq On : 10-29-2014 04:31:01 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:19:57 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:01:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	16625440	0.04013	ng
41)	Cl7(180) #2	29.59	15248596m	0.04123	ng
42)	Cl7(170) #2	30.22	17092989m	0.04250	ng
43)	Cl8(195) #2	31.09	16133549m	0.04378	ng
44)	Cl9(206) #2	32.18	15533637m	0.04679	ng
45)	Cl10(209) #2	32.62	12228183m	0.04729	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7336.D\ECD1A.CH Vial: 44
 Signal #2 : I:\M\DATA\SM0419\M7336.D\ECD2B.CH
 Acq On : 30 Oct 2014 12:41 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:26:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:26:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3814908	0.10000	ng
10) I C16(161)	23.21	8230646m	0.10000	ng
24) I C15(96) #2	20.52	19242427m	0.10000	ng
33) I C16(161) #2	26.79	44008527	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2606657m	0.07267	ng
Spiked Amount	0.0800	Recovery	=	90.84%
11) s C16(152)	20.48	3742210	0.08224	ng
Spiked Amount	0.0803	Recovery	=	102.39%
27) s C13(34) #2	16.48	14099069m	0.07384	ng
Spiked Amount	0.0800	Recovery	=	92.30%
34) s C16(152) #2	23.57	18930694m	0.08804	ng
Spiked Amount	0.0803	Recovery	=	109.61%
Target Compounds				
2) C12(8)	10.21	1555540	0.07077	ng
3) C13(18)	12.13	1943275	0.07138	ng
5) C13(28)	14.21	3697391	0.07520	ng
6) C14(52)	15.83	2689271	0.07414	ng
7) C14(44)	16.70	3725498m	0.07592	ng
8) C14(66)	18.60	4179861	0.07483	ng
9) C15(101)	19.73	4057329m	0.07239	ng
12) C15(118)	22.39	4338683	0.07567	ng
13) C16(153)	23.43	4629615m	0.08346	ng
14) C15(105)	23.45	5295835m	0.07595	ng
15) C16(138)	24.54	5525434	0.07814	ng
16) C17(187)	25.29	5060510	0.08215	ng
17) C16(128)	25.63	4971973m	0.07144	ng
18) C17(180)	27.16	5823457	0.07931	ng
19) C17(170)	27.96	6536006	0.07840	ng
20) C18(195)	29.04	6295524	0.08041	ng
21) C19(206)	30.31	5975217m	0.07902	ng
22) C110(209)	30.90	4801490m	0.07819	ng
25) C12(8) #2	13.10	8931825m	0.07344	ng
26) C13(18) #2	14.99	10349473m	0.07504	ng
28) C13(28) #2	17.76	19076474m	0.07188	ng
29) C14(52) #2	19.14	11075464m	0.07064	ng
30) C14(44) #2	19.97	20715622m	0.07663	ng
31) C14(66) #2	22.36	23614796m	0.07900	ng
32) C15(101) #2	23.61	13313423m	0.07763	ng
35) C15(118) #2	26.35	21959454m	0.08199	ng
36) C16(153) #2	26.94	21865560	0.07715	ng
37) C15(105) #2	27.20	30784940	0.07846	ng
38) C16(138) #2	27.78	22940882m	0.08475	ng
39) C17(187) #2	28.14	23565138	0.08068	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7336.D\ECD1A.CH Vial: 44
 Signal #2 : I:\M\DATA\SM0419\M7336.D\ECD2B.CH
 Acq On : 30 Oct 2014 12:41 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:26:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:26:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	33163017	0.08038	ng
41)	Cl7(180) #2	29.59	29739308m	0.08027	ng
42)	Cl7(170) #2	30.21	32432989m	0.08012	ng
43)	Cl8(195) #2	31.08	29960349m	0.08046	ng
44)	Cl9(206) #2	32.18	26807657m	0.07981	ng
45)	Cl10(209) #2	32.62	20684890m	0.07953	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7341.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0419\M7341.D\ECD2B.CH
 Acq On : 10-30-2014 04:23:47 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:26:31 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:26:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3379095	0.10000	ng
10) I C16(161)	23.21	7495292	0.10000	ng
24) I C15(96) #2	20.52	17098743m	0.10000	ng
33) I C16(161) #2	26.79	42059798	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1310636	0.03795	ng
Spiked Amount	0.0400	Recovery	=	94.87%
11) s C16(152)	20.48	1864503	0.04264	ng
Spiked Amount	0.0402	Recovery	=	106.18%
27) s C13(34) #2	16.48	7172814m	0.03964	ng
Spiked Amount	0.0400	Recovery	=	99.10%
34) s C16(152) #2	23.57	8788810m	0.04154	ng
Spiked Amount	0.0402	Recovery	=	103.44%
Target Compounds				
2) C12(8)	10.21	788332	0.03738	ng
3) C13(18)	12.12	1022616	0.03893	ng
5) C13(28)	14.21	1776677m	0.03849	ng
6) C14(52)	15.83	1380313	0.03900	ng
7) C14(44)	16.70	1814414m	0.03908	ng
8) C14(66)	18.60	2069884	0.03948	ng
9) C15(101)	19.73	1961454m	0.03788	ng
12) C15(118)	22.39	2231359	0.04056	ng
13) C16(153)	23.44 TW	2070545m	0.03964	ng
14) C15(105)	23.45 TW	2850379m	0.04262	ng
15) C16(138)	24.54	2640177m	0.03923	ng
16) C17(187)	25.29	2374763m	0.04046	ng
17) C16(128)	25.63	2822567m	0.04365	ng
18) C17(180)	27.16	2696644m	0.03896	ng
19) C17(170)	27.96	3058267m	0.03908	ng
20) C18(195)	29.04	2916286m	0.03977	ng
21) C19(206)	30.31	2774148m	0.03925	ng
22) C110(209)	30.90	2268667m	0.03929	ng
25) C12(8) #2	13.10	4519222m	0.03946	ng
26) C13(18) #2	14.99	4969704m	0.03676	ng
28) C13(28) #2	17.76	9356238m	0.03787	ng
29) C14(52) #2	19.14	6186389m	0.04238	ng
30) C14(44) #2	19.97	10114141m	0.04020	ng
31) C14(66) #2	22.36	11635943m	0.04196	ng
32) C15(101) #2	23.61	6807118m	0.04359	ng
35) C15(118) #2	26.35	10600571m	0.03934	ng
36) C16(153) #2	26.94	11157096	0.03939	ng
37) C15(105) #2	27.20	15174546	0.03997	ng
38) C16(138) #2	27.78	9503588m	0.03706	ng
39) C17(187) #2	28.14	11724266	0.04106	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7341.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0419\M7341.D\ECD2B.CH
 Acq On : 10-30-2014 04:23:47 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:26:31 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:26:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	16345708	0.04090	ng
41)	Cl7(180) #2	29.58	14686846	0.04113	ng
42)	Cl7(170) #2	30.22	15775092	0.04058	ng
43)	Cl8(195) #2	31.09	14503738m	0.04071	ng
44)	Cl9(206) #2	32.18	13122132m	0.04088	ng
45)	Cl10(209) #2	32.62	10288595m	0.04108	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7364.D\ECD1A.CH Vial: 1
 Signal #2 : I:\M\DATA\SM0420\M7364.D\ECD2B.CH
 Acq On : 31 Oct 2014 10:49 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 31 15:57:16 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:01:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.42	2938384m	0.10000	ng
10) I C16(161)	23.22	7017547m	0.10000	ng
24) I C15(96) #2	20.52	13978204m	0.10000	ng
33) I C16(161) #2	26.79	33572612	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.43	1150466m	0.03836	ng
Spiked Amount	0.0400	Recovery	=	95.90%
11) s C16(152)	20.49	1725936m	0.04211	ng
Spiked Amount	0.0402	Recovery	=	104.86%
27) s C13(34) #2	16.49	6002691m	0.04070	ng
Spiked Amount	0.0400	Recovery	=	101.75%
34) s C16(152) #2	23.57	6963603m	0.04121	ng
Spiked Amount	0.0402	Recovery	=	102.61%
Target Compounds				
2) C12(8)	10.26	690445m	0.03769	ng
3) C13(18)	12.17	923480m	0.04070	ng
5) C13(28)	14.24	1592254m	0.03979	ng
6) C14(52)	15.86	1187762m	0.03851	ng
7) C14(44)	16.72	1664970m	0.04149	ng
8) C14(66)	18.61	1774169m	0.03885	ng
9) C15(101)	19.75	1940861m	0.04350	ng
12) C15(118)	22.40	1882229m	0.03614	ng
13) C16(153)	23.46 T	1997251m	0.04090	ng
14) C15(105)	23.46 T	2565161m	0.04081	ng
15) C16(138)	24.55	2462070m	0.03906	ng
16) C17(187)	25.30	2240405m	0.04079	ng
17) C16(128)	25.65	2624454m	0.04334	ng
18) C17(180)	27.16	2655123m	0.04110	ng
19) C17(170)	27.96	3043713m	0.04167	ng
20) C18(195)	29.04	2925583m	0.04276	ng
21) C19(206)	30.31	2865172m	0.04348	ng
22) C110(209)	30.90	2362800m	0.04395	ng
25) C12(8) #2	13.13	3766266m	0.04031	ng
26) C13(18) #2	15.01	4422827m	0.04063	ng
28) C13(28) #2	17.78	7449555m	0.03681	ng
29) C14(52) #2	19.15	4642654m	0.03856	ng
30) C14(44) #2	19.98	7815934m	0.03783	ng
31) C14(66) #2	22.36	9027810m	0.03967	ng
32) C15(101) #2	23.62	4827034m	0.03734	ng
35) C15(118) #2	26.35	8152562m	0.03776	ng
36) C16(153) #2	26.94	8497879m	0.03741	ng
37) C15(105) #2	27.20	11501935m	0.03788	ng
38) C16(138) #2	27.78	8642543m	0.04225	ng
39) C17(187) #2	28.14	9336966	0.04096	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7364.D\ECD1A.CH Vial: 1
 Signal #2 : I:\M\DATA\SM0420\M7364.D\ECD2B.CH
 Acq On : 31 Oct 2014 10:49 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 31 15:57:16 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:01:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	12649258m	0.03960	ng
41)	Cl7(180) #2	29.59	11559753m	0.04054	ng
42)	Cl7(170) #2	30.22	12670340m	0.04084	ng
43)	Cl8(195) #2	31.09	11947459m	0.04204	ng
44)	Cl9(206) #2	32.18	11146881m	0.04354	ng
45)	Cl10(209) #2	32.62	8887747m	0.04454	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7366.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0420\M7366.D\ECD2B.CH
 Acq On : 31 Oct 2014 12:18 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 31 15:57:30 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Oct 31 15:57:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2882190	0.10000	ng
10) I C16(161)	23.20	5960128m	0.10000	ng
24) I C15(96) #2	20.51	14899100m	0.10000	ng
33) I C16(161) #2	26.79	33015851	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2056445	0.07633	ng
Spiked Amount	0.0800	Recovery	=	95.41%
11) s C16(152)	20.48	2750113	0.08356	ng
Spiked Amount	0.0803	Recovery	=	104.03%
27) s C13(34) #2	16.47	11688255m	0.07965	ng
Spiked Amount	0.0800	Recovery	=	99.56%
34) s C16(152) #2	23.57	12602325m	0.07806	ng
Spiked Amount	0.0803	Recovery	=	97.19%
Target Compounds				
2) C12(8)	10.21	1313763	0.08039	ng
3) C13(18)	12.12	1652169	0.08189	ng
5) C13(28)	14.21	2904281	0.07849	ng
6) C14(52)	15.83	2118533	0.07784	ng
7) C14(44)	16.70	2837896m	0.07662	ng
8) C14(66)	18.60	3250928	0.07726	ng
9) C15(101)	19.73	3200364m	0.07582	ng
12) C15(118)	22.39	3391627	0.08224	ng
13) C16(153)	23.43	3136821m	0.07782	ng
14) C15(105)	23.45	3993803m	0.07944	ng
15) C16(138)	24.54	4140770	0.08105	ng
16) C17(187)	25.29	3591602	0.08042	ng
17) C16(128)	25.63	3791086m	0.07541	ng
18) C17(180)	27.16	4224797	0.07946	ng
19) C17(170)	27.96	4807838	0.07969	ng
20) C18(195)	29.04	4523241m	0.07976	ng
21) C19(206)	30.30	4290405m	0.07833	ng
22) C110(209)	30.90	3483568m	0.07835	ng
25) C12(8) #2	13.10	7453781m	0.07981	ng
26) C13(18) #2	14.99	8491714m	0.08020	ng
28) C13(28) #2	17.76	16085402m	0.07883	ng
29) C14(52) #2	19.14	9131714m	0.07573	ng
30) C14(44) #2	19.96	18044522m	0.08710	ng
31) C14(66) #2	22.35	17928017m	0.07734	ng
32) C15(101) #2	23.61	10362311m	0.07804	ng
35) C15(118) #2	26.35	15321189m	0.07593	ng
36) C16(153) #2	26.93	16841670	0.07930	ng
37) C15(105) #2	27.20	23616805	0.08023	ng
38) C16(138) #2	27.78	14986894m	0.07407	ng
39) C17(187) #2	28.14	17802516	0.08126	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7366.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0420\M7366.D\ECD2B.CH
 Acq On : 31 Oct 2014 12:18 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 31 15:57:30 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Oct 31 15:57:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	25204649	0.08143	ng
41)	Cl7(180) #2	29.58	22564111	0.08118	ng
42)	Cl7(170) #2	30.21	24017802m	0.07910	ng
43)	Cl8(195) #2	31.08	21971277m	0.07868	ng
44)	Cl9(206) #2	32.18	19513386m	0.07747	ng
45)	Cl10(209) #2	32.62	15219381m	0.07800	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7603.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0424\M7603.D\ECD2B.CH
 Acq On : 11-15-2014 09:03:03 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 17 08:21:53 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 17 08:21:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3483421	0.10000	ng
10) I C16(161)	23.21	7849561m	0.10000	ng
24) I C15(96) #2	20.51	19118951m	0.10000	ng
33) I C16(161) #2	26.79	46749872	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1372584	0.03865	ng
Spiked Amount	0.0400	Recovery	=	96.63%
11) s C16(152)	20.48	1923497	0.04194	ng
Spiked Amount	0.0402	Recovery	=	104.43%
27) s C13(34) #2	16.47	7880853m	0.03886	ng
Spiked Amount	0.0400	Recovery	=	97.15%
34) s C16(152) #2	23.57	9388134m	0.03978	ng
Spiked Amount	0.0402	Recovery	=	99.05%
Target Compounds				
2) C12(8)	10.21	829981	0.03830	ng
3) C13(18)	12.12	1042862	0.03844	ng
5) C13(28)	14.21	1877061	0.03954	ng
6) C14(52)	15.83	1407349	0.03849	ng
7) C14(44)	16.70	1906801m	0.03993	ng
8) C14(66)	18.60	2056583	0.03790	ng
9) C15(101)	19.73	2133770m	0.04013	ng
12) C15(118)	22.39	2155199	0.03709	ng
13) C16(153)	23.44 TW	2107012m	0.03847	ng
14) C15(105)	23.45 TW	2918654m	0.04158	ng
15) C16(138)	24.53	2727745m	0.03866	ng
16) C17(187)	25.28	2463440m	0.04004	ng
17) C16(128)	25.63	2553054m	0.03749	ng
18) C17(180)	27.15	2841591m	0.03922	ng
19) C17(170)	27.96	3192880m	0.03895	ng
20) C18(195)	29.04	3085498m	0.04020	ng
21) C19(206)	30.30	2949327	0.03987	ng
22) C110(209)	30.90	2432228m	0.04027	ng
25) C12(8) #2	13.10	4828193m	0.03753	ng
26) C13(18) #2	14.99	5411555m	0.03562	ng
28) C13(28) #2	17.76	10309258m	0.03728	ng
29) C14(52) #2	19.14	6212451m	0.03764	ng
30) C14(44) #2	19.96	11494650m	0.04091	ng
31) C14(66) #2	22.35	12490543m	0.04016	ng
32) C15(101) #2	23.61	7564836m	0.04330	ng
35) C15(118) #2	26.35	11037493m	0.03660	ng
36) C16(153) #2	26.93	12307201	0.03906	ng
37) C15(105) #2	27.20	15901075m	0.03760	ng
38) C16(138) #2	27.78	12073716m	0.04239	ng
39) C17(187) #2	28.13	12942281m	0.04076	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7603.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0424\M7603.D\ECD2B.CH
 Acq On : 11-15-2014 09:03:03 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 17 08:21:53 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 17 08:21:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	17735825m	0.03988	ng
41)	Cl7(180) #2	29.58	16304884m	0.04108	ng
42)	Cl7(170) #2	30.21	17724615m	0.04103	ng
43)	Cl8(195) #2	31.08	16595913m	0.04193	ng
44)	Cl9(206) #2	32.18	15120739m	0.04240	ng
45)	Cl10(209) #2	32.62	11986157m	0.04311	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7614.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0424\M7614.D\ECD2B.CH
 Acq On : 11-15-2014 05:12:34 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 17 08:22:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 17 08:21:57 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3364116m	0.10000	ng
10) I C16(161)	23.21	7233456m	0.10000	ng
24) I C15(96) #2	20.51	20391286m	0.10000	ng
33) I C16(161) #2	26.78	47356837m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2329773m	0.07379	ng
Spiked Amount	0.0800	Recovery	=	92.24%
11) s C16(152)	20.48	3286783	0.08219	ng
Spiked Amount	0.0803	Recovery	=	102.33%
27) s C13(34) #2	16.47	14761623m	0.07285	ng
Spiked Amount	0.0800	Recovery	=	91.06%
34) s C16(152) #2	23.57	20483551m	0.08852	ng
Spiked Amount	0.0803	Recovery	=	110.21%
Target Compounds				
2) C12(8)	10.21	1400600	0.07247	ng
3) C13(18)	12.12	1732812	0.07231	ng
5) C13(28)	14.20	3241849m	0.07473	ng
6) C14(52)	15.83	2346199m	0.07322	ng
7) C14(44)	16.70	3278573m	0.07575	ng
8) C14(66)	18.59	3548384m	0.07176	ng
9) C15(101)	19.73	3825441m	0.07778	ng
12) C15(118)	22.39	3614545m	0.07140	ng
13) C16(153)	23.44 TW	3714686m	0.07584	ng
14) C15(105)	23.45 TW	4561569m	0.07429	ng
15) C16(138)	24.53	4749981m	0.07633	ng
16) C17(187)	25.28	4239841m	0.07808	ng
17) C16(128)	25.63	4881778m	0.08026	ng
18) C17(180)	27.15	5060963m	0.07838	ng
19) C17(170)	27.96	5712496m	0.07795	ng
20) C18(195)	29.04	5532907m	0.08042	ng
21) C19(206)	30.30	5345153m	0.08048	ng
22) C110(209)	30.90	4391217m	0.08152	ng
25) C12(8) #2	13.10	9065052m	0.07001	ng
26) C13(18) #2	14.99	10619257m	0.07231	ng
28) C13(28) #2	17.76	19723159m	0.06999	ng
29) C14(52) #2	19.14	11647009m	0.07005	ng
30) C14(44) #2	19.96	22938425m	0.08037	ng
31) C14(66) #2	22.35	24752984m	0.07808	ng
32) C15(101) #2	23.60	15630321m	0.08609	ng
35) C15(118) #2	26.35	23430807m	0.08126	ng
36) C16(153) #2	26.93	23156354m	0.07587	ng
37) C15(105) #2	27.20	32540361m	0.07706	ng
38) C16(138) #2	27.78	23378348m	0.08038	ng
39) C17(187) #2	28.13	25258029m	0.08036	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7614.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0424\M7614.D\ECD2B.CH
 Acq On : 11-15-2014 05:12:34 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 17 08:22:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 17 08:21:57 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	35690151m	0.08039	ng
41)	Cl7(180) #2	29.58	33417542m	0.08380	ng
42)	Cl7(170) #2	30.21	36770625m	0.08437	ng
43)	Cl8(195) #2	31.08	34842423m	0.08685	ng
44)	Cl9(206) #2	32.18	32318906m	0.08926	ng
45)	Cl10(209) #2	32.62	25326610m	0.09044	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:34 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2038180	0.10000	ng
4) I C15(96) #2	20.51	12872032m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	102746m	0.00162	ng
5) C15(101) #2	23.23	516701m	0.00035	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7205.D MM0417F.M Fri Dec 05 16:10:49 2014

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:38 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
4) I C15(96) #2	20.51	13386960	0.10000	ng
Target Compounds				
2) C15(101)	19.73	341674m	0.00915	ng
5) C15(101) #2	23.22	3258192m	0.02515	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
4) I C15(96) #2	20.51	13612237m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	753837m	0.02114	ng
5) C15(101) #2	23.22	5441576m	0.04378	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7208.D MM0417F.M Fri Dec 05 16:10:57 2014

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:46 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
4) I C15(96) #2	20.51	14869473m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	1636592m	0.04499	ng
5) C15(101) #2	23.21	11842524m	0.08946	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7209.D MM0417F.M Fri Dec 05 16:10:58 2014

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:50 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
4) I C15(96) #2	20.51	15494530m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2973113m	0.08080	ng
5) C15(101) #2	23.21	25660002m	0.18179	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:54 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2539311m	0.10000	ng
4) I C15(96) #2	20.51	15194166m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	11042195m	0.36809	ng
5) C15(101) #2	23.22 e	68456197m	0.44286	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:24:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:22:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	

Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
4) I C15(96) #2	20.51	13936712m	0.10000	ng	
Target Compounds					
2) C15(101)	19.73	1516710m	0.03859	ng	-3.5
5) C15(101) #2	23.21	11320633m	0.03850	ng	-3.8

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7252.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0418\M7252.D\ECD2B.CH
 Acq On : 10-26-2014 08:58:30 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:29:22 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:29:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2503423	0.10000	ng
4) I C15(96) #2	20.52	13786769m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2987426m	0.07905	ng
5) C15(101) #2	23.22	21160386m	0.07520	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7263.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0418\M7263.D\ECD2B.CH
 Acq On : 10-26-2014 05:08:44 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:26:29 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:24:14 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3503800	0.10000	ng
4) I C15(96) #2	20.52	16567909m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2103181m	0.03830	ng
5) C15(101) #2	23.23	13459212m	0.03850	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0418\M7274.D\ECD2B.CH
 Acq On : 10-27-2014 01:18:57 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:27:04 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:26:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3425966	0.10000	ng
4) I C15(96) #2	20.52	18214041m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	4006931m	0.07740	ng
5) C15(101) #2	23.22	26949031m	0.07226	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274K.D\ECD1A.CH Vial: 53
 Signal #2 : I:\M\DATA\SM0418\M7274K.D\ECD2B.CH
 Acq On : 10-27-2014 09:31:18 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:27:39 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:27:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3219252m	0.10000	ng
4) I C15(96) #2	20.52	16073399m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	1965492m	0.03899	ng
5) C15(101) #2	23.22	12949138m	0.03818	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7285.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0418\M7285.D\ECD2B.CH
 Acq On : 10-27-2014 05:41:11 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:28:16 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3582175m	0.10000	ng
4) I C15(96) #2	20.52	18940266m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	2187628m	0.03900	ng
5) C15(101) #2	23.21	17014286m	0.04268	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7292.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0418\M7292.D\ECD2B.CH
 Acq On : 27 Oct 2014 10:52 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:28:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3887025m	0.10000	ng
4) I C15(96) #2	20.51	17874408m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	4276820m	0.07258	ng
5) C15(101) #2	23.22	26759500m	0.07319	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7364.D\ECD1A.CH Vial: 1
 Signal #2 : I:\M\DATA\SM0420\M7364.D\ECD2B.CH
 Acq On : 31 Oct 2014 10:49 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:59:58 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:39:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.42	2944764m	0.10000	ng
4) I C15(96) #2	20.52	13887062m	0.10000	ng
Target Compounds				
2) C15(101)	19.75	2071810m	0.04531	ng
5) C15(101) #2	23.22	12474969m	0.04269	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7366.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0420\M7366.D\ECD2B.CH
 Acq On : 31 Oct 2014 12:18 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:00:06 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:00:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2882190	0.10000	ng
4) I C15(96) #2	20.51	15017810m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	3452418m	0.07937	ng
5) C15(101) #2	23.21	23647973m	0.07734	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7253.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0418\M7253.D\ECD2B.CH
 Acq On : 10-26-2014 09:43:06 AM Operator: RR
 Sample : CD580PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:14:14 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	2558363	100.00000	ng
10) I C16(161)	23.22	4492702	100.00000	ng
24) I C15(96) #2	20.52	14387734m	100.00000	ng
33) I C16(161) #2	26.80	29611578m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	5241878	270.78214	ng
Spiked Amount	400.0000	Recovery	=	67.70%
11) s C16(152)	20.49	7203821	336.86450	ng
Spiked Amount	401.6000	Recovery	=	83.88%
27) s C13(34) #2	16.48	35817317m	309.51342	ng
Spiked Amount	400.0000	Recovery	=	77.38%
34) s C16(152) #2	23.63	47356996m	301.29439	ng
Spiked Amount	401.6000	Recovery	=	75.02%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7253.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0418\M7253.D\ECD2B.CH
 Acq On : 10-26-2014 09:43:06 AM Operator: RR
 Sample : CD580PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:14:14 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7254.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0418\M7254.D\ECD2B.CH
 Acq On : 26 Oct 2014 10:27 am Operator: RR
 Sample : CD581LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:29 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.40	2768412	100.00000	ng	
10) I C16(161)	23.22	4746649m	100.00000	ng	
24) I C15(96) #2	20.52	13884990m	100.00000	ng	
33) I C16(161) #2	26.80	27061528m	100.00000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	5573187	264.34971	ng	66%
Spiked Amount	400.0000	Recovery	=	66.09%	
11) s C16(152)	20.49	7834761	348.98965	ng	87%
Spiked Amount	401.6000	Recovery	=	86.90%	
27) s C13(34) #2	16.48	35562915m	321.70888	ng	80%
Spiked Amount	400.0000	Recovery	=	80.43%	
34) s C16(152) #2	23.63	53030437m	359.05609	ng	89%
Spiked Amount	401.6000	Recovery	=	89.41%	
Target Compounds					
2) C12(8)	10.21	461201	25.18965	ng	67%
3) C13(18)	12.13	653062	28.91309	ng	77%
5) C13(28)	14.21	969867	24.54140	ng	65%
6) C14(52)	15.84	777407	24.49692	ng	65%
7) C14(44)	16.71	972882	24.16001	ng	64%
8) C14(66)	18.60	1108107	24.53928	ng	65%
9) C15(101)	19.74	1082688m	24.74145	ng	66%
12) C15(118)	22.40	1201034	33.87981	ng	90%
13) C16(153)	23.44	945573m	28.14509	ng	75%
14) C15(105)	23.46	1297126m	29.58958	ng	79%
15) C16(138)	24.54	1425646	33.00275	ng	88%
16) C17(187)	25.29	1213670m	32.06359	ng	86%
17) C16(128)	25.64	1064420m	25.48198	ng	68%
18) C17(180)	27.16	1418956	31.97821	ng	85%
19) C17(170)	27.96	1549428	30.85465	ng	82%
20) C18(195)	29.05	1494824	31.83120	ng	85%
21) C19(206)	30.31	1395213m	30.82466	ng	82%
22) C110(209)	30.90	1213729m	32.87490	ng	88%
25) C12(8) #2	13.11	2785443m	29.04486	ng	77%
26) C13(18) #2	15.00	3397736m	29.91032	ng	80%
28) C13(28) #2	17.77	5767101m	28.06876	ng	75%
29) C14(52) #2	19.15	3748562m	30.64064	ng	82%
30) C14(44) #2	19.97	6056277m	28.92518	ng	77%
31) C14(66) #2	22.37	6668785m	28.78628	ng	77%
32) C15(101) #2	23.67	3810680m	28.88048	ng	77%
35) C15(118) #2	26.36	5748540m	32.53654	ng	87%
36) C16(153) #2	26.94	6301202	34.08689	ng	91%
37) C15(105) #2	27.21	8268915	33.61173	ng	90%
38) C16(138) #2	27.79	5752258m	34.83907	ng	93%
39) C17(187) #2	28.15	6298924	33.87837	ng	90%

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7254.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0418\M7254.D\ECD2B.CH
 Acq On : 26 Oct 2014 10:27 am Operator: RR
 Sample : CD581LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:29 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.55	8641100	33.29152	ng	89%
41)	Cl7(180) #2	29.59	7666133	33.09557	ng	88%
42)	Cl7(170) #2	30.22	7998289m	31.74969	ng	85%
43)	Cl8(195) #2	31.09	7361668m	31.93702	ng	85%
44)	Cl9(206) #2	32.19	6446985m	31.04210	ng	83%
45)	Cl10(209) #2	32.63	5391372m	33.23930	ng	89%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7255.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0418\M7255.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:12 am Operator: RR
 Sample : M8152-P(2) Inst : INST. M
 Misc : NBH14-0001 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:35 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.38	2637572m	95.00000	ng
10) I C16(161)	23.21	5230257m	95.00000	ng
24) I C15(96) #2	20.53	14511731m	95.00000	ng
33) I C16(161) #2	26.80	22817839m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7449306m	430.41335	ng
Spiked Amount	379.8670	Recovery	=	113.31%
11) s C16(152)	20.49	7956236	300.31100	ng
Spiked Amount	381.3865	Recovery	=	78.74%
27) s C13(34) #2	16.48	42157359m	365.99227	ng
Spiked Amount	379.8670	Recovery	=	96.35%
34) s C16(152) #2	23.64	36177097m	284.07043	ng
Spiked Amount	381.3865	Recovery	=	74.48%
Target Compounds				
2) C12(8)	10.21	E 12744930	BelowCal	ng
3) C13(18)	12.13	E 27789623	BelowCal	ng
5) C13(28)	14.21	E 246688971	BelowCal	ng
6) C14(52)	15.85	E 103180490	BelowCal	ng
7) C14(44)	16.71	E 40721670	BelowCal	ng
8) C14(66)	18.66	E 98330517m	BelowCal	ng
9) C15(101)	19.73	E 52345296	BelowCal	ng
12) C15(118)	22.40	E 36974359	BelowCal	ng
13) C16(153)	23.44	E 63515361	BelowCal	ng
14) C15(105)	23.48	7634002m	185.15446	ng
15) C16(138)	24.54	E 47363737	BelowCal	ng
16) C17(187)	25.31	9420380	250.79554	ng
17) C16(128)	25.64	7537817	172.53625	ng
18) C17(180)	27.17	11383578	246.11061	ng
19) C17(170)	27.98	8624478m	159.73407	ng
20) C18(195)	29.05	1606724	29.45526	ng
21) C19(206)	30.32	2117149m	40.93605	ng
22) C110(209)	30.91	558052m	12.06042	ng
25) C12(8) #2	13.11	E 67860031	BelowCal	ng
26) C13(18) #2	15.00	E 142104107	BelowCal	ng
28) C13(28) #2	17.77	E 709691650	BelowCal	ng
29) C14(52) #2	19.16	E 525983210	BelowCal	ng
30) C14(44) #2	19.97	E 203592422	BelowCal	ng
31) C14(66) #2	22.35	E 292214636	BelowCal	ng
32) C15(101) #2	23.46	E 235551605m	1138.18792	ng
35) C15(118) #2	26.35	E 213196312	2054.22133	ng
36) C16(153) #2	26.95	E 237051788	1420.57902	ng
37) C15(105) #2	27.21	40214433m	184.10839	ng
38) C16(138) #2	27.79	e 89526775	499.38873	ng
39) C17(187) #2	28.15	43506112	266.68894	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7255.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0418\M7255.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:12 am Operator: RR
 Sample : M8152-P(2) Inst : INST. M
 Misc : NBH14-0001 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:35 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	39780098m	174.00246	ng
41)	Cl7(180) #2	29.60	51472454m	243.66770	ng
42)	Cl7(170) #2	30.23	38870263	171.82922	ng
43)	Cl8(195) #2	31.09	8068293	39.67817	ng
44)	Cl9(206) #2	32.19	7038180m	38.38624	ng
45)	Cl10(209) #2	32.63	1901297m	12.41779	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7256.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0418\M7256.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:56 am Operator: RR
 Sample : M8153-P(2) Inst : INST. M
 Misc : NBH14-0005 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:41 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:33 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2481340m	95.00000	ng
10) I C16(161)	23.22	5978963m	95.00000	ng
24) I C15(96) #2	20.53	13546422m	95.00000	ng
33) I C16(161) #2	26.81	18882860m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	8676798m	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.50	8280472	268.66929	ng
Spiked Amount	381.3865	Recovery	=	70.45%
27) s C13(34) #2	16.49	39777272m	371.97868	ng
Spiked Amount	379.8670	Recovery	=	97.92%
34) s C16(152) #2	23.64	35182087m	326.69087	ng
Spiked Amount	381.3865	Recovery	=	85.66%
Target Compounds				
2) C12(8)	10.21	E 17430959	BelowCal	ng
3) C13(18)	12.14	E 38374301	BelowCal	ng
5) C13(28)	14.21	E 336552873	BelowCal	ng
6) C14(52)	15.85	E 151534578	BelowCal	ng
7) C14(44)	16.71	E 63580097	BelowCal	ng
8) C14(66)	18.66	E 117932221m	BelowCal	ng
9) C15(101)	19.73	E 78179870	BelowCal	ng
12) C15(118)	22.41	E 61451752	BelowCal	ng
13) C16(153)	23.45	E 92636766	BelowCal	ng
14) C15(105)	23.49	11877460m	278.02856	ng
15) C16(138)	24.55	E 70515985	BelowCal	ng
16) C17(187)	25.32	e 13599558	328.48233	ng
17) C16(128)	25.65	11115011	230.33421	ng
18) C17(180)	27.18	e 15952353m	306.94596	ng
19) C17(170)	27.98	12511624m	205.48112	ng
20) C18(195)	29.05	2233789	36.20783	ng
21) C19(206)	30.32	3108766m	53.11001	ng
22) C110(209)	30.92	698703m	13.36026	ng
25) C12(8) #2	13.11	E 79951753	BelowCal	ng
26) C13(18) #2	15.00	E 169081656	BelowCal	ng
28) C13(28) #2	17.77	E 827043250	BelowCal	ng
29) C14(52) #2	19.16	E 630813028	BelowCal	ng
30) C14(44) #2	19.97	E 267866240	BelowCal	ng
31) C14(66) #2	22.35	E 389193643	BelowCal	ng
32) C15(101) #2	23.46	E 310077900m	1447.74735	ng
35) C15(118) #2	26.35	E 276521536	BelowCal	ng
36) C16(153) #2	26.95	E 286350349	1978.35074	ng
37) C15(105) #2	27.22	54613060	293.25580	ng
38) C16(138) #2	27.79	e 115474023	712.09800	ng
39) C17(187) #2	28.15	55348227	398.45409	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7256.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0418\M7256.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:56 am Operator: RR
 Sample : M8153-P(2) Inst : INST. M
 Misc : NBH14-0005 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:41 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:33 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	46725207m	242.72173	ng
41)	Cl7(180) #2	29.60	64469970m	355.74864	ng
42)	Cl7(170) #2	30.23	43894911m	230.23494	ng
43)	Cl8(195) #2	31.10	8471246m	50.46795	ng
44)	Cl9(206) #2	32.19	8953234m	59.14466	ng
45)	Cl10(209) #2	32.63	1980482m	15.99725	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7257.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0418\M7257.D\ECD2B.CH
 Acq On : 26 Oct 2014 12:41 pm Operator: RR
 Sample : M8154-P(2) Inst : INST. M
 Misc : NBH14-0009 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:47 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2883928m	95.00000	ng
10) I C16(161)	23.22	6152753m	95.00000	ng
24) I C15(96) #2	20.53	12851167m	95.00000	ng
33) I C16(161) #2	26.80	19706908m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	9173888m	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.50	8590069	271.22530	ng
Spiked Amount	381.3865	Recovery	=	71.12%
27) s C13(34) #2	16.48	38409971m	382.23130	ng
Spiked Amount	379.8670	Recovery	=	100.62%
34) s C16(152) #2	23.64	32220145m	291.79430	ng
Spiked Amount	381.3865	Recovery	=	76.51%
Target Compounds				
2) C12(8)	10.22	E 27374068	BelowCal	ng
3) C13(18)	12.14	E 59784657	BelowCal	ng
5) C13(28)	14.21	E 381548193	BelowCal	ng
6) C14(52)	15.85	E 168722985	BelowCal	ng
7) C14(44)	16.71	E 91925567	BelowCal	ng
8) C14(66)	18.66	E 146349071m	BelowCal	ng
9) C15(101)	19.73	E 95844718	BelowCal	ng
12) C15(118)	22.41	E 80027597	BelowCal	ng
13) C16(153)	23.45	E 106244266	BelowCal	ng
14) C15(105)	23.49	12105714m	274.22867	ng
15) C16(138)	24.55	E 80029249	BelowCal	ng
16) C17(187)	25.32	e 12763096m	294.88160	ng
17) C16(128)	25.66	13036563	268.68579	ng
18) C17(180)	27.18	e 19901112	379.75138	ng
19) C17(170)	27.98	15405949m	248.89553	ng
20) C18(195)	29.05	2245395	35.32551	ng
21) C19(206)	30.33	2697957m	44.49204	ng
22) C110(209)	30.92	610718m	11.10991	ng
25) C12(8) #2	13.11	E 114493385	BelowCal	ng
26) C13(18) #2	15.00	E 235914676	BelowCal	ng
28) C13(28) #2	17.77	E 858036637	BelowCal	ng
29) C14(52) #2	19.16	E 646930098	BelowCal	ng
30) C14(44) #2	19.97	E 336366553	BelowCal	ng
31) C14(66) #2	22.35	E 427230968	BelowCal	ng
32) C15(101) #2	23.46	E 297658267m	1459.50724	ng
35) C15(118) #2	26.35	E 305327878	BelowCal	ng
36) C16(153) #2	26.95	E 293535838	1948.07032	ng
37) C15(105) #2	27.21	58888938m	302.22894	ng
38) C16(138) #2	27.79	e 122513063	721.26437	ng
39) C17(187) #2	28.15	55420081	383.54835	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7257.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0418\M7257.D\ECD2B.CH
 Acq On : 26 Oct 2014 12:41 pm Operator: RR
 Sample : M8154-P(2) Inst : INST. M
 Misc : NBH14-0009 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:47 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	49595985m	246.60856	ng
41)	Cl7(180) #2	29.60	75251548m	393.13382	ng
42)	Cl7(170) #2	30.23	50394330m	251.55259	ng
43)	Cl8(195) #2	31.09	8751644m	49.95566	ng
44)	Cl9(206) #2	32.19	7853045m	49.70696	ng
45)	Cl10(209) #2	32.62	1403681m	10.40594	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7258.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0418\M7258.D\ECD2B.CH
 Acq On : 10-26-2014 01:25:50 PM Operator: RR
 Sample : M8155-P(2) Inst : INST. M
 Misc : NBH14-0013 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:53 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2476290m	95.00000	ng
10) I C16(161)	23.22	7248097m	95.00000	ng
24) I C15(96) #2	20.53	12441652m	95.00000	ng
33) I C16(161) #2	26.83	19123017m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	8953658	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.50	8880991m	233.03905	ng
Spiked Amount	381.3865	Recovery	=	61.10%
27) s C13(34) #2	16.49	40024402m	430.70733	ng
Spiked Amount	379.8670	Recovery	=	113.38%
34) s C16(152) #2	23.64	32857072m	304.65513	ng
Spiked Amount	381.3865	Recovery	=	79.88%
Target Compounds				
2) C12(8)	10.22	E 31697773	BelowCal	ng
3) C13(18)	12.14	E 67501913	BelowCal	ng
5) C13(28)	14.21	E 446746411	BelowCal	ng
6) C14(52)	15.85	E 155479149	BelowCal	ng
7) C14(44)	16.72	E 110673127	BelowCal	ng
8) C14(66)	18.63	E 191745200	BelowCal	ng
9) C15(101)	19.74	E 123657387	BelowCal	ng
12) C15(118)	22.42	E 125289468	BelowCal	ng
13) C16(153)	23.45	E 128984646	BelowCal	ng
14) C15(105)	23.49	e 21258165m	BelowCal	ng
15) C16(138)	24.56	E 97221837	BelowCal	ng
16) C17(187)	25.32	e 14663157	286.44902	ng
17) C16(128)	25.65	e 16509521	293.22915	ng
18) C17(180)	27.18	e 23771193m	385.68880	ng
19) C17(170)	27.98	e 18270039m	250.68559	ng
20) C18(195)	29.06	2672994m	35.71683	ng
21) C19(206)	30.33	3310169m	46.41445	ng
22) C110(209)	30.92	786399m	12.29062	ng
25) C12(8) #2	13.11	E 136533881	BelowCal	ng
26) C13(18) #2	15.00	E 284277894	BelowCal	ng
28) C13(28) #2	17.78	E 1083812788	BelowCal	ng
29) C14(52) #2	19.16	E 641503319	BelowCal	ng
30) C14(44) #2	19.97	E 452140336	BelowCal	ng
31) C14(66) #2	22.37	E 637705842	BelowCal	ng
32) C15(101) #2	23.46	E 441842159m	1941.80519	ng
35) C15(118) #2	26.35	E 470763463	BelowCal	ng
36) C16(153) #2	26.95	E 355818851	2354.14944	ng
37) C15(105) #2	27.22	e 95187682	478.98286	ng
38) C16(138) #2	27.79	E 177360228	976.44494	ng
39) C17(187) #2	28.15	57303129	406.61262	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7258.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0418\M7258.D\ECD2B.CH
 Acq On : 10-26-2014 01:25:50 PM Operator: RR
 Sample : M8155-P(2) Inst : INST. M
 Misc : NBH14-0013 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:53 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.56	67260696	336.42266	ng
41)	Cl7(180) #2	29.60	e 90063278m	472.76477	ng
42)	Cl7(170) #2	30.23	64055139	322.11359	ng
43)	Cl8(195) #2	31.10	6952973m	40.81769	ng
44)	Cl9(206) #2	32.19	8598283m	56.09365	ng
45)	Cl10(209) #2	32.64	2153864m	17.28222	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7259.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0418\M7259.D\ECD2B.CH
 Acq On : 10-26-2014 02:10:27 PM Operator: RR
 Sample : M8167-P(2) Inst : INST. M
 Misc : NBH14-0065 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:59 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3609297m	95.00000	ng
10) I C16(161)	23.22	7247431m	95.00000	ng
24) I C15(96) #2	20.53	15537356m	95.00000	ng
33) I C16(161) #2	26.80	35992629	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8291592	302.73891	ng
Spiked Amount	379.8670	Recovery	=	79.70%
11) s C16(152)	20.49	11909387	329.73751	ng
Spiked Amount	381.3865	Recovery	=	86.46%
27) s C13(34) #2	16.48	43476850m	346.24672	ng
Spiked Amount	379.8670	Recovery	=	91.15%
34) s C16(152) #2	23.63	58029360m	288.25727	ng
Spiked Amount	381.3865	Recovery	=	75.58%
Target Compounds				
2) C12(8)	10.21	269924m	8.42707	ng
3) C13(18)	12.13	655562	19.86955	ng
5) C13(28)	14.20	3291435m	66.81716	ng
6) C14(52)	15.84	2666846m	74.39270	ng
7) C14(44)	16.71	1125758m	19.97634	ng
8) C14(66)	18.63	1198756m	18.82516	ng
9) C15(101)	19.72	1958621	33.47729	ng
12) C15(118)	22.40	2026843	35.96225	ng
13) C16(153)	23.43	2188574m	41.33706	ng
14) C15(105)	23.46	589496m	6.53899	ng
15) C16(138)	24.53	1990096m	28.42890	ng
16) C17(187)	25.30	453526	5.60951	ng
17) C16(128)	25.63	368746m	4.93940	ng
18) C17(180)	27.16	458202m	4.88566	ng
19) C17(170)	27.97	341197m	2.79486	ng
20) C18(195)	29.04	73270	BelowCal	ng
21) C19(206)	30.31	80048m	BelowCal	ng
22) C110(209)	30.90	28728m	BelowCal	ng
25) C12(8) #2	13.11	1380826m	10.63424	ng
26) C13(18) #2	15.00	3595809m	26.54822	ng
28) C13(28) #2	17.77	14741060m	65.12372	ng
29) C14(52) #2	19.15	13359973m	105.06724	ng
30) C14(44) #2	19.97	5602948m	22.33233	ng
31) C14(66) #2	22.35	5257442m	18.58447	ng
32) C15(101) #2	23.66	8450071m	57.59788	ng
35) C15(118) #2	26.34	10031735m	41.72606	ng
36) C16(153) #2	26.94	9723429m	38.18329	ng
37) C15(105) #2	27.21	2533841m	5.92683	ng
38) C16(138) #2	27.79	4595262	19.62528	ng
39) C17(187) #2	28.15	1878607	5.16666	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7259.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0418\M7259.D\ECD2B.CH
 Acq On : 10-26-2014 02:10:27 PM Operator: RR
 Sample : M8167-P(2) Inst : INST. M
 Misc : NBH14-0065 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:02:59 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:02:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	2252449m	4.57715	ng
41)	Cl7(180) #2	29.59	1951428m	4.57644	ng
42)	Cl7(170) #2	30.22	1492492	2.99054	ng
43)	Cl8(195) #2	31.09	241205	BelowCal	ng
44)	Cl9(206) #2	32.19	141656m	BelowCal	ng
45)	Cl10(209) #2	32.58	275459m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7260.D\ECD1A.CH Vial: 10
 Acq On : 10-26-2014 02:55:00 PM Operator: RR
 Sample : M8167DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0065 5-128 14-049 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7260.D\ECD2B.CH Vial: 10
 Acq On : 10-26-2014 02:54:59 PM Operator: RR
 Sample : M8167DUP-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:03:05 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:02:57 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Cl5(96)	17.40	3127952m	95.00000	ng
10) I Cl6(161)	23.22	6620840	95.00000	ng
24) I Cl5(96) #2	20.52	17019126m	95.00000	ng
33) I Cl6(161) #2	26.80	38749000	95.00000	ng
System Monitoring Compounds				
4) s Cl3(34)	13.41	7599663m	329.73048	ng
Spiked Amount	379.8670	Recovery	=	86.80%
11) s Cl6(152)	20.49	10373869m	311.19175	ng
Spiked Amount	381.3865	Recovery	=	81.59%
27) s Cl3(34) #2	16.48	46401615m	333.51629	ng
Spiked Amount	379.8670	Recovery	=	87.80%
34) s Cl6(152) #2	23.63	60406582m	279.90240	ng
Spiked Amount	381.3865	Recovery	=	73.39%
Target Compounds				
2) Cl2(8)	10.21	261414m	9.89024	ng
3) Cl3(18)	12.13	655975	23.78610	ng
5) Cl3(28)	14.20	2443349m	56.39392	ng
6) Cl4(52)	15.84	2409792	78.09556	ng
7) Cl4(44)	16.71	1014963m	20.92179	ng
8) Cl4(66)	18.63	1157456m	21.31748	ng
9) Cl5(101)	19.72	1759041m	34.78299	ng
12) Cl5(118)	22.40	1728258	33.31904	ng
13) Cl6(153)	23.43	1951138m	40.29584	ng
14) Cl5(105)	23.47	486780m	5.67690	ng
15) Cl6(138)	24.54	1884950m	29.57538	ng
16) Cl7(187)	25.30	405446	5.43880	ng
17) Cl6(128)	25.63	376477m	5.59791	ng
18) Cl7(180)	27.17	430550m	5.07988	ng
19) Cl7(170)	27.97	325794m	2.99569	ng
20) Cl8(195)	29.05	58427m	BelowCal	ng
21) Cl9(206)	30.31	81837m	BelowCal	ng
22) Cl10(209)	30.91	15333m	BelowCal	ng
25) Cl2(8) #2	13.11	1466274m	10.22806	ng
26) Cl3(18) #2	15.00	3657933m	24.23673	ng
28) Cl3(28) #2	17.77	15967730m	64.34417	ng
29) Cl4(52) #2	19.16	14140029m	101.05969	ng
30) Cl4(44) #2	19.97	6125135m	22.28386	ng
31) Cl4(66) #2	22.35	5614645m	18.06419	ng
32) Cl5(101) #2	23.67	5932626m	35.83964	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7260.D\ECD1A.CH Vial: 10
 Acq On : 10-26-2014 02:55:00 PM Operator: RR
 Sample : M8167DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0065 5-128 14-049 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7260.D\ECD2B.CH Vial: 10
 Acq On : 10-26-2014 02:54:59 PM Operator: RR
 Sample : M8167DUP-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:03:05 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:02:57 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
35)	C15(118) #2	26.34	10584792	40.81877	ng
36)	C16(153) #2	26.95	10130329	36.82854	ng
37)	C15(105) #2	27.21	2626230	5.63419	ng
38)	C16(138) #2	27.79	5413174	21.54596	ng
39)	C17(187) #2	28.15	2048576	5.26816	ng
40)	C16(128) #2	28.55	2647158m	5.18648	ng
41)	C17(180) #2	29.59	2241765m	5.00715	ng
42)	C17(170) #2	30.22	1575769m	2.90406	ng
43)	C18(195) #2	31.09	301346	BelowCal	ng
44)	C19(206) #2	32.19	341928	BelowCal	ng
45)	C110(209) #2	32.63	52894m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7261.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0418\M7261.D\ECD2B.CH
 Acq On : 10-26-2014 03:39:36 PM Operator: RR
 Sample : M8356-P(2) Inst : INST. M
 Misc : NBH14-0207 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:11 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2905499m	95.00000	ng
10) I C16(161)	23.23	4701199m	95.00000	ng
24) I C15(96) #2	20.53	19012656m	95.00000	ng
33) I C16(161) #2	26.81	21270500	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	10273318m	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.50	8225392	356.31361	ng
Spiked Amount	381.3865	Recovery	=	93.43%
27) s C13(34) #2	16.49	49878347m	315.90868	ng
Spiked Amount	379.8670	Recovery	=	83.16%
34) s C16(152) #2	23.64	38246508m	316.85652	ng
Spiked Amount	381.3865	Recovery	=	83.08%
Target Compounds				
2) C12(8)	10.21	E 29709864	BelowCal	ng
3) C13(18)	12.14	E 84941199	BelowCal	ng
5) C13(28)	14.21	E 546942228	BelowCal	ng
6) C14(52)	15.85	E 272735159	BelowCal	ng
7) C14(44)	16.71	E 91758496	BelowCal	ng
8) C14(66)	18.66	E 144277508m	BelowCal	ng
9) C15(101)	19.73	E 91678233	BelowCal	ng
12) C15(118)	22.40	E 52391101m	BelowCal	ng
13) C16(153)	23.45	E 118350357	BelowCal	ng
14) C15(105)	23.49	8870432m	258.56269	ng
15) C16(138)	24.55	E 83611909	BelowCal	ng
16) C17(187)	25.31	e 21118015	851.44949	ng
17) C16(128)	25.65	10494758m	286.12631	ng
18) C17(180)	27.18	e 21509308	566.05165	ng
19) C17(170)	27.98	15885513m	344.81088	ng
20) C18(195)	29.05	3250469	68.79474	ng
21) C19(206)	30.32	4565658m	101.50302	ng
22) C110(209)	30.92	968069m	24.79887	ng
25) C12(8) #2	13.11	E 140193288	BelowCal	ng
26) C13(18) #2	15.00	E 372646560	BelowCal	ng
28) C13(28) #2	17.78	E 1395965371	BelowCal	ng
29) C14(52) #2	19.16	E 1213289636	BelowCal	ng
30) C14(44) #2	19.97	E 420396588	BelowCal	ng
31) C14(66) #2	22.34	E 455421757	BelowCal	ng
32) C15(101) #2	23.46	E 374900035m	1305.85404	ng
35) C15(118) #2	26.35	E 319655788	BelowCal	ng
36) C16(153) #2	26.95	E 463190933	2683.89193	ng
37) C15(105) #2	27.22	50012555	241.84984	ng
38) C16(138) #2	27.79	e 126491843	696.76333	ng
39) C17(187) #2	28.15	e 97516616	596.51054	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7261.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0418\M7261.D\ECD2B.CH
 Acq On : 10-26-2014 03:39:36 PM Operator: RR
 Sample : M8356-P(2) Inst : INST. M
 Misc : NBH14-0207 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:11 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	60875951m	278.10145	ng
41)	Cl7(180) #2	29.60	e 119922098	552.09627	ng
42)	Cl7(170) #2	30.23	70699597	319.86368	ng
43)	Cl8(195) #2	31.10	16481335m	86.80813	ng
44)	Cl9(206) #2	32.19	18444102m	107.13265	ng
45)	Cl10(209) #2	32.64	3807916m	28.25251	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7262.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0418\M7262.D\ECD2B.CH
 Acq On : 10-26-2014 04:24:07 PM Operator: RR
 Sample : M8357-P(2) Inst : INST. M
 Misc : NBH14-0211 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:17 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.42	2987928m	95.00000	ng
10) I C16(161)	23.23	4380345m	95.00000	ng
24) I C15(96) #2	20.53	16071084m	95.00000	ng
33) I C16(161) #2	26.80	22120995	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	12147299	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.50	8153296m	385.25916	ng
Spiked Amount	381.3865	Recovery	=	101.02%
27) s C13(34) #2	16.49	52889218m	448.13639	ng
Spiked Amount	379.8670	Recovery	=	117.97%
34) s C16(152) #2	23.64	37660099m	302.23568	ng
Spiked Amount	381.3865	Recovery	=	79.25%
Target Compounds				
2) C12(8)	10.22	E 90262125	BelowCal	ng
3) C13(18)	12.14	E 218916780	BelowCal	ng
5) C13(28)	14.22	E 666524053	BelowCal	ng
6) C14(52)	15.86	E 558269347	BelowCal	ng
7) C14(44)	16.71	E 189093330	BelowCal	ng
8) C14(66)	18.61	E 39885818m	BelowCal	ng
9) C15(101)	19.73	E 112394798	BelowCal	ng
12) C15(118)	22.34	E 265976186	BelowCal	ng
13) C16(153)	23.44	E 132111215m	BelowCal	ng
14) C15(105)	23.50	3637801m	95.84931	ng
15) C16(138)	24.54	E 93579867	BelowCal	ng
16) C17(187)	25.31	E 30078275	BelowCal	ng
17) C16(128)	25.64	5206029m	139.54145	ng
18) C17(180)	27.18	e 18290189	508.17989	ng
19) C17(170)	27.98	13054911m	300.48337	ng
20) C18(195)	29.05	3486983m	79.62505	ng
21) C19(206)	30.32	5395641m	129.97989	ng
22) C110(209)	30.91	1197599m	33.52492	ng
25) C12(8) #2	13.11	E 367346981	BelowCal	ng
26) C13(18) #2	15.01	E 834602064	BelowCal	ng
28) C13(28) #2	17.78	E 1564164850	BelowCal	ng
29) C14(52) #2	19.17	E 2184286958	BelowCal	ng
30) C14(44) #2	19.97	E 761810746	BelowCal	ng
31) C14(66) #2	22.33	E 684065062	BelowCal	ng
32) C15(101) #2	23.46	E 468638796m	1705.15286	ng
35) C15(118) #2	26.35	E 300315913	BelowCal	ng
36) C16(153) #2	26.95	E 516734367	2843.41295	ng
37) C15(105) #2	27.21	18904126m	90.98903	ng
38) C16(138) #2	27.85	E 287925982m	1247.52585	ng
39) C17(187) #2	28.15	e 122178886	702.25018	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7262.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0418\M7262.D\ECD2B.CH
 Acq On : 10-26-2014 04:24:07 PM Operator: RR
 Sample : M8357-P(2) Inst : INST. M
 Misc : NBH14-0211 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:17 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	24559789m	112.20503	ng
41)	Cl7(180) #2	29.60	e 88594860	410.10199	ng
42)	Cl7(170) #2	30.23	44675991	201.83474	ng
43)	Cl8(195) #2	31.09	15002266m	76.15125	ng
44)	Cl9(206) #2	32.19	22343822	124.18155	ng
45)	Cl10(209) #2	32.63	4488723m	32.18400	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7264.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0418\M7264.D\ECD2B.CH
 Acq On : 10-26-2014 05:53:15 PM Operator: RR
 Sample : M8360-P(2) Inst : INST. M
 Misc : NBH14-0220 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:22 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2370713m	95.00000	ng
10) I C16(161)	23.22	4556617m	95.00000	ng
24) I C15(96) #2	20.52	12106572m	95.00000	ng
33) I C16(161) #2	26.80	23766636m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	7809480	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.50	8494654	386.02839	ng
Spiked Amount	381.3865	Recovery	=	101.22%
27) s C13(34) #2	16.48	38223376m	417.31771	ng
Spiked Amount	379.8670	Recovery	=	109.86%
34) s C16(152) #2	23.64	37913430m	285.59867	ng
Spiked Amount	381.3865	Recovery	=	74.88%
Target Compounds				
2) C12(8)	10.21	e 5968280	BelowCal	ng
3) C13(18)	12.13	E 13257083	BelowCal	ng
5) C13(28)	14.20	E 131611630	BelowCal	ng
6) C14(52)	15.84	E 57804900	BelowCal	ng
7) C14(44)	16.71	E 27066987	BelowCal	ng
8) C14(66)	18.64	E 58264709	BelowCal	ng
9) C15(101)	19.73	E 43951536	BelowCal	ng
12) C15(118)	22.41	E 50481822	BelowCal	ng
13) C16(153)	23.44	E 62979610	BelowCal	ng
14) C15(105)	23.48	8187847m	241.88881	ng
15) C16(138)	24.55	E 49627914	BelowCal	ng
16) C17(187)	25.31	6678253m	199.12575	ng
17) C16(128)	25.64	8994235m	247.03801	ng
18) C17(180)	27.17	10673079m	266.40431	ng
19) C17(170)	27.98	8276588m	176.87170	ng
20) C18(195)	29.05	1485428	31.36444	ng
21) C19(206)	30.32	1675045m	37.02045	ng
22) C110(209)	30.91	473672m	11.70962	ng
25) C12(8) #2	13.11	e 30723161	BelowCal	ng
26) C13(18) #2	15.00	E 64815661	BelowCal	ng
28) C13(28) #2	17.77	E 360006521	BelowCal	ng
29) C14(52) #2	19.16	E 273525101	BelowCal	ng
30) C14(44) #2	19.97	E 128305181	BelowCal	ng
31) C14(66) #2	22.36	E 214849239	BelowCal	ng
32) C15(101) #2	23.46	E 163823029m	997.89941	ng
35) C15(118) #2	26.35	E 219814433	2021.78182	ng
36) C16(153) #2	26.95	E 192281279	1134.03485	ng
37) C15(105) #2	27.21	54323261	235.51526	ng
38) C16(138) #2	27.79	e 112365573	581.03634	ng
39) C17(187) #2	28.15	32395412	193.41057	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7264.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0418\M7264.D\ECD2B.CH
 Acq On : 10-26-2014 05:53:15 PM Operator: RR
 Sample : M8360-P(2) Inst : INST. M
 Misc : NBH14-0220 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:22 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	50814280m	211.43164	ng
41)	Cl7(180) #2	29.60	47683163m	218.45300	ng
42)	Cl7(170) #2	30.23	36050510	153.82738	ng
43)	Cl8(195) #2	31.09	6798433	31.94989	ng
44)	Cl9(206) #2	32.19	5798410m	30.21930	ng
45)	Cl10(209) #2	32.63	1667752m	10.23023	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7265.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0418\M7265.D\ECD2B.CH
 Acq On : 10-26-2014 06:37:52 PM Operator: RR
 Sample : M8361-P(2) Inst : INST. M
 Misc : NBH14-0224 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:28 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3844228m	95.00000	ng
10) I C16(161)	23.22	7925858m	95.00000	ng
24) I C15(96) #2	20.52	16526564m	95.00000	ng
33) I C16(161) #2	26.80	37193038m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	8420748	282.45588	ng
Spiked Amount	379.8670	Recovery	=	74.36%
11) s C16(152)	20.49	11302775	278.09403	ng
Spiked Amount	381.3865	Recovery	=	72.92%
27) s C13(34) #2	16.48	46597215m	350.10768	ng
Spiked Amount	379.8670	Recovery	=	92.17%
34) s C16(152) #2	23.63 TW	48383105m	238.48102	ng
Spiked Amount	381.3865	Recovery	=	62.53%
Target Compounds				
2) C12(8)	10.21	2005508m	89.23105	ng
3) C13(18)	12.13	e 5314181	235.70555	ng
5) C13(28)	14.20	E 29571685	BelowCal	ng
6) C14(52)	15.84	E 14991476	BelowCal	ng
7) C14(44)	16.71	5532552	111.49978	ng
8) C14(66)	18.63	4352344m	73.70610	ng
9) C15(101)	19.72	7120156	125.64287	ng
12) C15(118)	22.40	6814120	122.82683	ng
13) C16(153)	23.43	8767454m	163.43795	ng
14) C15(105)	23.47	1729077m	21.83460	ng
15) C16(138)	24.54	7422649	105.83098	ng
16) C17(187)	25.30	1358526m	19.55361	ng
17) C16(128)	25.63	1502643m	20.32434	ng
18) C17(180)	27.16	1679459m	20.92842	ng
19) C17(170)	27.97	1322431m	14.12318	ng
20) C18(195)	29.05	227687m	1.34875	ng
21) C19(206)	30.31	261171m	2.09777	ng
22) C110(209)	30.91	59631m	BelowCal	ng
25) C12(8) #2	13.11	10745093m	101.70850	ng
26) C13(18) #2	15.00	e 29929170	324.87194	ng
28) C13(28) #2	17.77	e 95864370	BelowCal	ng
29) C14(52) #2	19.16	E 87030708	BelowCal	ng
30) C14(44) #2	19.96	30757222m	133.25337	ng
31) C14(66) #2	22.34	21498076m	79.90333	ng
32) C15(101) #2	23.64 TW	26466572m	167.35470	ng
35) C15(118) #2	26.34	39962763	174.04499	ng
36) C16(153) #2	26.94	39448153	159.56763	ng
37) C15(105) #2	27.21	9017830	24.99704	ng
38) C16(138) #2	27.79	19541458	81.12559	ng
39) C17(187) #2	28.15	7557754	27.78744	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7265.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0418\M7265.D\ECD2B.CH
 Acq On : 10-26-2014 06:37:52 PM Operator: RR
 Sample : M8361-P(2) Inst : INST. M
 Misc : NBH14-0224 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:28 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	8599035m	22.39548	ng
41)	Cl7(180) #2	29.59	8748314m	25.84791	ng
42)	Cl7(170) #2	30.22	5983712m	15.82882	ng
43)	Cl8(195) #2	31.09	843311m	1.33140	ng
44)	Cl9(206) #2	32.19	1004816m	2.35629	ng
45)	Cl10(209) #2	32.63	321977m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7266.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0418\M7266.D\ECD2B.CH
 Acq On : 10-26-2014 07:22:23 PM Operator: RR
 Sample : M8362-P(2) Inst : INST. M
 Misc : NBH14-0228 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:34 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:26 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3037866m	95.00000	ng
10) I C16(161)	23.24	5326577m	95.00000	ng
24) I C15(96) #2	20.53	12375657	95.00000	ng
33) I C16(161) #2	26.80	25520812m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	7966894m	374.04559	ng
Spiked Amount	379.8670	Recovery	=	98.47%
11) s C16(152)	20.50	8618052	323.54300	ng
Spiked Amount	381.3865	Recovery	=	84.83%
27) s C13(34) #2	16.48	38086620m	400.26510	ng
Spiked Amount	379.8670	Recovery	=	105.37%
34) s C16(152) #2	23.64	37584781m	266.25289	ng
Spiked Amount	381.3865	Recovery	=	69.81%
Target Compounds				
2) C12(8)	10.21	E 8187681	BelowCal	ng
3) C13(18)	12.13	E 19329414	BelowCal	ng
5) C13(28)	14.20	E 92801947	BelowCal	ng
6) C14(52)	15.85	E 45338707	BelowCal	ng
7) C14(44)	16.71	E 18655895	BelowCal	ng
8) C14(66)	18.66	E 24563310	BelowCal	ng
9) C15(101)	19.73	10579141	261.53111	ng
12) C15(118)	22.35	e 12853916m	430.88920	ng
13) C16(153)	23.45	e 11387634m	348.74569	ng
14) C15(105)	23.48	2081293m	41.71657	ng
15) C16(138)	24.55	10929807m	249.02251	ng
16) C17(187)	25.32	3035942m	71.99812	ng
17) C16(128)	25.65	1684329	34.59110	ng
18) C17(180)	27.18	3000614m	59.35845	ng
19) C17(170)	27.98	2178299m	37.21027	ng
20) C18(195)	29.05	1722722m	31.10294	ng
21) C19(206)	30.33	3923921m	76.21254	ng
22) C110(209)	30.92	2489446m	58.89581	ng
25) C12(8) #2	13.11	e 42966867	BelowCal	ng
26) C13(18) #2	15.00	E 93716143	BelowCal	ng
28) C13(28) #2	17.77	E 249164230	BelowCal	ng
29) C14(52) #2	19.16	E 224111440	BelowCal	ng
30) C14(44) #2	19.97	e 83427901	BelowCal	ng
31) C14(66) #2	22.35	T e 79147229	565.19194	ng
32) C15(101) #2	23.46	44687349m	348.41396	ng
35) C15(118) #2	26.35	36511775	234.84167	ng
36) C16(153) #2	26.95	41290400	243.44875	ng
37) C15(105) #2	27.22	7005720	28.52298	ng
38) C16(138) #2	27.79	17116135m	102.63418	ng
39) C17(187) #2	28.15	20312063m	114.12200	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7266.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0418\M7266.D\ECD2B.CH
 Acq On : 10-26-2014 07:22:23 PM Operator: RR
 Sample : M8362-P(2) Inst : INST. M
 Misc : NBH14-0228 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:34 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:26 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	7332831m	28.28208	ng
41)	Cl7(180) #2	29.60	13500480m	59.67173	ng
42)	Cl7(170) #2	30.23	7292018m	29.12102	ng
43)	Cl8(195) #2	31.09	2903629m	12.01157	ng
44)	Cl9(206) #2	32.19	16165443m	78.79928	ng
45)	Cl10(209) #2	32.63	10489965m	66.06664	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7267.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0418\M7267.D\ECD2B.CH
 Acq On : 10-26-2014 08:06:58 PM Operator: RR
 Sample : M8363-P(2) Inst : INST. M
 Misc : NBH14-0232 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:40 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.38	2787303m	95.00000	ng
10) I C16(161)	23.22	5087859m	95.00000	ng
24) I C15(96) #2	20.53	13728083	95.00000	ng
33) I C16(161) #2	26.80	22093566m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8063706m	453.56138	ng
Spiked Amount	379.8670	Recovery	=	119.40%
11) s C16(152)	20.49	8391314	331.21879	ng
Spiked Amount	381.3865	Recovery	=	86.85%
27) s C13(34) #2	16.48	38730439m	350.42114	ng
Spiked Amount	379.8670	Recovery	=	92.25%
34) s C16(152) #2	23.64	37948702	304.56927	ng
Spiked Amount	381.3865	Recovery	=	79.86%
Target Compounds				
2) C12(8)	10.21	E 10835780	BelowCal	ng
3) C13(18)	12.13	E 27963459	BelowCal	ng
5) C13(28)	14.21	E 212268547	BelowCal	ng
6) C14(52)	15.84	E 105838458	BelowCal	ng
7) C14(44)	16.71	E 47206887	BelowCal	ng
8) C14(66)	18.62	E 23475879m	BelowCal	ng
9) C15(101)	19.73	E 55623126	BelowCal	ng
12) C15(118)	22.41	E 58662967	BelowCal	ng
13) C16(153)	23.45	E 79674044	BelowCal	ng
14) C15(105)	23.49	9886576m	269.42295	ng
15) C16(138)	24.55	E 62212910	BelowCal	ng
16) C17(187)	25.31	9548807	262.80968	ng
17) C16(128)	25.64	12010997	306.39893	ng
18) C17(180)	27.17	14139532m	320.97388	ng
19) C17(170)	27.98	11295283m	218.82627	ng
20) C18(195)	29.05	1797990	34.14984	ng
21) C19(206)	30.32	2423937m	48.49962	ng
22) C110(209)	30.91	784632	18.14761	ng
25) C12(8) #2	13.11	E 54934435	BelowCal	ng
26) C13(18) #2	15.00	E 130907017	BelowCal	ng
28) C13(28) #2	17.77	E 548608519	BelowCal	ng
29) C14(52) #2	19.16	E 482394979	BelowCal	ng
30) C14(44) #2	19.97	E 210224875	BelowCal	ng
31) C14(66) #2	22.35	E 276479527	BelowCal	ng
32) C15(101) #2	23.46	E 230867681m	1167.31335	ng
35) C15(118) #2	26.35	E 261631373	3502.07391	ng
36) C16(153) #2	26.95	E 244319213	1501.66432	ng
37) C15(105) #2	27.21	58631328	270.78156	ng
38) C16(138) #2	27.79	E 130675772	693.81828	ng
39) C17(187) #2	28.15	42534447	269.14258	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7267.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0418\M7267.D\ECD2B.CH
 Acq On : 10-26-2014 08:06:58 PM Operator: RR
 Sample : M8363-P(2) Inst : INST. M
 Misc : NBH14-0232 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:40 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	59067930	260.98175	ng
41)	Cl7(180) #2	29.59	62412696m	299.70873	ng
42)	Cl7(170) #2	30.23	43513786	197.11898	ng
43)	Cl8(195) #2	31.09	7184995m	36.43615	ng
44)	Cl9(206) #2	32.19	7042385m	39.68643	ng
45)	Cl10(209) #2	32.63	1996373m	13.58668	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7268.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0418\M7268.D\ECD2B.CH
 Acq On : 10-26-2014 08:51:25 PM Operator: RR
 Sample : M8368-P(2) Inst : INST. M
 Misc : NBH14-0245 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:46 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2866852m	95.00000	ng
10) I C16(161)	23.23	4785445m	95.00000	ng
24) I C15(96) #2	20.53	16355129m	95.00000	ng
33) I C16(161) #2	26.83	20039548m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	10105120	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.50	7710341	321.90538	ng
Spiked Amount	381.3865	Recovery	=	84.40%
27) s C13(34) #2	16.48	43943594m	326.65919	ng
Spiked Amount	379.8670	Recovery	=	85.99%
34) s C16(152) #2	23.64	33487200	297.39033	ng
Spiked Amount	381.3865	Recovery	=	77.98%
Target Compounds				
2) C12(8)	10.22	E 66667044	BelowCal	ng
3) C13(18)	12.14	E 142562475	BelowCal	ng
5) C13(28)	14.21	E 610307336	BelowCal	ng
6) C14(52)	15.85	E 289466839	BelowCal	ng
7) C14(44)	16.71	E 153437461	BelowCal	ng
8) C14(66)	18.49	E 59126192	BelowCal	ng
9) C15(101)	19.73	E 138316698	BelowCal	ng
12) C15(118)	22.41	E 113025111	BelowCal	ng
13) C16(153)	23.45	E 136839988	BelowCal	ng
14) C15(105)	23.50	9654775m	284.31668	ng
15) C16(138)	24.55	E 99552643	BelowCal	ng
16) C17(187)	25.31	e 18962132	683.09333	ng
17) C16(128)	25.65	12531787m	349.16300	ng
18) C17(180)	27.18	e 22787494	593.83294	ng
19) C17(170)	27.98	e 17729695m	381.88625	ng
20) C18(195)	29.06	2927799m	60.58991	ng
21) C19(206)	30.32	4049190m	87.98119	ng
22) C110(209)	30.92	838448m	20.84446	ng
25) C12(8) #2	13.11	E 270735038	BelowCal	ng
26) C13(18) #2	15.00	E 552887676	BelowCal	ng
28) C13(28) #2	17.78	E 1433774933	BelowCal	ng
29) C14(52) #2	19.16	E 1145196903	BelowCal	ng
30) C14(44) #2	19.97	E 605481295	BelowCal	ng
31) C14(66) #2	22.35	E 687442396	BelowCal	ng
32) C15(101) #2	23.46	E 559236888m	1894.32365	ng
35) C15(118) #2	26.35	E 489045801	BelowCal	ng
36) C16(153) #2	26.95	E 447923145	2742.28270	ng
37) C15(105) #2	27.21	62719303	315.37278	ng
38) C16(138) #2	27.79	E 142723896	800.84284	ng
39) C17(187) #2	28.15	e 79435545	524.06183	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7268.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0418\M7268.D\ECD2B.CH
 Acq On : 10-26-2014 08:51:25 PM Operator: RR
 Sample : M8368-P(2) Inst : INST. M
 Misc : NBH14-0245 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:46 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	59747439m	288.87361	ng
41)	Cl7(180) #2	29.60	e 98052523m	488.70459	ng
42)	Cl7(170) #2	30.23	65426317	314.70973	ng
43)	Cl8(195) #2	31.09	12758371m	71.54406	ng
44)	Cl9(206) #2	32.19	13787315m	85.46962	ng
45)	Cl10(209) #2	32.63	3065267m	23.95416	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7269.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0418\M7269.D\ECD2B.CH
 Acq On : 10-26-2014 09:35:56 PM Operator: RR
 Sample : M8369-P(2) Inst : INST. M
 Misc : NBH14-0249 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:52 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2390269m	95.00000	ng
10) I C16(161)	23.22	4951624m	95.00000	ng
24) I C15(96) #2	20.52	15394826m	95.00000	ng
33) I C16(161) #2	26.80	22688283m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	8804670	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.49	8445594	345.20621	ng
Spiked Amount	381.3865	Recovery	=	90.51%
27) s C13(34) #2	16.48	41341972m	326.42008	ng
Spiked Amount	379.8670	Recovery	=	85.93%
34) s C16(152) #2	23.64	38786869	303.32736	ng
Spiked Amount	381.3865	Recovery	=	79.53%
Target Compounds				
2) C12(8)	10.21	E 18149504	BelowCal	ng
3) C13(18)	12.13	E 52084239	BelowCal	ng
5) C13(28)	14.21	E 317191502	BelowCal	ng
6) C14(52)	15.85	E 166617314	BelowCal	ng
7) C14(44)	16.71	E 63326819	BelowCal	ng
8) C14(66)	18.48	E 23064051	BelowCal	ng
9) C15(101)	19.73	E 62775523	BelowCal	ng
12) C15(118)	22.40	E 45486099m	BelowCal	ng
13) C16(153)	23.44	E 80195462	BelowCal	ng
14) C15(105)	23.48	7954857m	208.87538	ng
15) C16(138)	24.54	E 58335979	BelowCal	ng
16) C17(187)	25.31	11613039m	340.64195	ng
17) C16(128)	25.64	8691097m	215.55683	ng
18) C17(180)	27.17	14014126	327.47457	ng
19) C17(170)	27.97	10537179m	209.18054	ng
20) C18(195)	29.05	1953029m	38.32816	ng
21) C19(206)	30.32	2705071m	55.90531	ng
22) C110(209)	30.91	564020m	12.98232	ng
25) C12(8) #2	13.11	E 84771028	BelowCal	ng
26) C13(18) #2	15.00	E 225093471	BelowCal	ng
28) C13(28) #2	17.77	E 790869054	BelowCal	ng
29) C14(52) #2	19.16	E 719136220	BelowCal	ng
30) C14(44) #2	19.97	E 278707272	BelowCal	ng
31) C14(66) #2	22.34	E 312998012	BelowCal	ng
32) C15(101) #2	23.46	E 265659011m	1188.89207	ng
35) C15(118) #2	26.34	E 238028640	2509.18655	ng
36) C16(153) #2	26.95	E 278723469	1647.63984	ng
37) C15(105) #2	27.21	41735471	191.78118	ng
38) C16(138) #2	27.79	e 96782255	534.69872	ng
39) C17(187) #2	28.15	52846084	321.98267	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7269.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0418\M7269.D\ECD2B.CH
 Acq On : 10-26-2014 09:35:56 PM Operator: RR
 Sample : M8369-P(2) Inst : INST. M
 Misc : NBH14-0249 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:52 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	47937515	209.06780	ng
41)	Cl7(180) #2	29.59	64364748m	300.86833	ng
42)	Cl7(170) #2	30.23	43116975	190.58882	ng
43)	Cl8(195) #2	31.09	8790384m	43.53219	ng
44)	Cl9(206) #2	32.19	8741373m	48.05207	ng
45)	Cl10(209) #2	32.63	2109044m	14.01808	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7270.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0418\M7270.D\ECD2B.CH
 Acq On : 26 Oct 2014 10:20 pm Operator: RR
 Sample : M8370-P(2) Inst : INST. M
 Misc : NBH14-0253 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:58 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2802792m	95.00000	ng
10) I C16(161)	23.22	5133630m	95.00000	ng
24) I C15(96) #2	20.53	18282342m	95.00000	ng
33) I C16(161) #2	26.82	21393245m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	9953659	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.49	8686940	341.84204	ng
Spiked Amount	381.3865	Recovery	=	89.63%
27) s C13(34) #2	16.48	45009899m	289.67948	ng
Spiked Amount	379.8670	Recovery	=	76.26%
34) s C16(152) #2	23.63	39546572	324.48905	ng
Spiked Amount	381.3865	Recovery	=	85.08%
Target Compounds				
2) C12(8)	10.21	E 37092422	BelowCal	ng
3) C13(18)	12.14	E 95902626	BelowCal	ng
5) C13(28)	14.21	E 426638307	BelowCal	ng
6) C14(52)	15.85	E 259355123	BelowCal	ng
7) C14(44)	16.71	E 83081012	BelowCal	ng
8) C14(66)	18.48	E 39647068	BelowCal	ng
9) C15(101)	19.73	E 79786198	BelowCal	ng
12) C15(118)	22.41	E 69353315	BelowCal	ng
13) C16(153)	23.44	E 115165068	BelowCal	ng
14) C15(105)	23.48	e 17647670m	BelowCal	ng
15) C16(138)	24.55	E 87080163	BelowCal	ng
16) C17(187)	25.31	e 14111601m	413.28800	ng
17) C16(128)	25.64	e 16168396	448.13816	ng
18) C17(180)	27.17	e 18985248	441.77273	ng
19) C17(170)	27.98	15391017m	302.43245	ng
20) C18(195)	29.05	2605409	49.88315	ng
21) C19(206)	30.32	3614001m	72.71210	ng
22) C110(209)	30.91	723864m	16.45267	ng
25) C12(8) #2	13.11	E 163443648	BelowCal	ng
26) C13(18) #2	15.00	E 385667835	BelowCal	ng
28) C13(28) #2	17.77	E 1044429221	BelowCal	ng
29) C14(52) #2	19.16	E 1077223532	BelowCal	ng
30) C14(44) #2	19.97	E 353415017	BelowCal	ng
31) C14(66) #2	22.34	E 367503457	BelowCal	ng
32) C15(101) #2	23.46	E 288134987m	1114.41284	ng
35) C15(118) #2	26.34	E 321015249	BelowCal	ng
36) C16(153) #2	26.95	E 324794002	1980.31451	ng
37) C15(105) #2	27.21	e 98487166	446.97943	ng
38) C16(138) #2	27.79	E 173835890	884.88417	ng
39) C17(187) #2	28.15	e 66156517	418.51478	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7270.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0418\M7270.D\ECD2B.CH
 Acq On : 26 Oct 2014 10:20 pm Operator: RR
 Sample : M8370-P(2) Inst : INST. M
 Misc : NBH14-0253 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:03:58 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	77858197	347.09388	ng
41)	Cl7(180) #2	29.60	82055536m	394.69183	ng
42)	Cl7(170) #2	30.23	55622926	255.44680	ng
43)	Cl8(195) #2	31.09	11421415m	60.06861	ng
44)	Cl9(206) #2	32.19	12348244m	71.89457	ng
45)	Cl10(209) #2	32.63	2589314m	18.67435	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7271.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0418\M7271.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:04 pm Operator: RR
 Sample : M8387-P(2) Inst : INST. M
 Misc : NBH14-0101 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:04:04 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3096478	95.00000	ng
10) I C16(161)	23.22	6330074m	95.00000	ng
24) I C15(96) #2	20.52	14120078m	95.00000	ng
33) I C16(161) #2	26.79	33224675m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7338570	317.28318	ng
Spiked Amount	379.8670	Recovery	=	83.52%
11) s C16(152)	20.49	10050792m	316.23004	ng
Spiked Amount	381.3865	Recovery	=	82.92%
27) s C13(34) #2	16.48	38713114m	336.19086	ng
Spiked Amount	379.8670	Recovery	=	88.50%
34) s C16(152) #2	23.63	51324205m	277.67320	ng
Spiked Amount	381.3865	Recovery	=	72.81%
Target Compounds				
2) C12(8)	10.21	83133	0.51934	ng
3) C13(18)	12.13	70320m	BelowCal	ng
5) C13(28)	14.20	505804m	9.49894	ng
6) C14(52)	15.84	238025m	1.92099	ng
7) C14(44)	16.70	116837m	BelowCal	ng
8) C14(66)	18.60	473494m	7.17231	ng
9) C15(101)	19.72	335334m	5.22728	ng
12) C15(118)	22.39	763112m	13.64645	ng
13) C16(153)	23.43	516687m	10.27501	ng
14) C15(105)	23.46	265197m	2.20098	ng
15) C16(138)	24.54	699434m	9.95510	ng
16) C17(187)	25.30	130154m	0.26668	ng
17) C16(128)	25.63	187994m	2.61173	ng
18) C17(180)	27.16	119872m	0.13097	ng
19) C17(170)	27.97	120280m	0.14806	ng
20) C18(195)	29.04	17853m	BelowCal	ng
21) C19(206)	30.31	25542m	BelowCal	ng
22) C110(209)	30.90	15011m	BelowCal	ng
25) C12(8) #2	13.11	394225m	1.58864	ng
26) C13(18) #2	15.00	387245m	BelowCal	ng
28) C13(28) #2	17.77	1930622m	7.35728	ng
29) C14(52) #2	19.15	1104659m	6.50112	ng
30) C14(44) #2	19.96	602674m	1.09482	ng
31) C14(66) #2	22.36	2298840m	7.86653	ng
32) C15(101) #2	23.68	1459718m	7.73162	ng
35) C15(118) #2	26.34	3620021m	14.08827	ng
36) C16(153) #2	26.94	2793578m	9.18216	ng
37) C15(105) #2	27.21	1291812m	2.40737	ng
38) C16(138) #2	27.78	2475217m	11.08378	ng
39) C17(187) #2	28.14	928379m	1.50877	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7271.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0418\M7271.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:04 pm Operator: RR
 Sample : M8387-P(2) Inst : INST. M
 Misc : NBH14-0101 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:04:04 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:03:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	1115568m	1.49164	ng
41)	Cl7(180) #2	29.59	621590m	0.36278	ng
42)	Cl7(170) #2	30.22	501604m	0.13889	ng
43)	Cl8(195) #2	31.09	92876m	BelowCal	ng
44)	Cl9(206) #2	32.19	53367m	BelowCal	ng
45)	Cl10(209) #2	32.62	110665m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7272.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0418\M7272.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:49 pm Operator: RR
 Sample : M8387MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0101 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 13:10:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:01:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2794790m	100.00000	ng
10) I C16(161)	23.22	5471518	100.00000	ng
24) I C15(96) #2	20.52	13782385m	100.00000	ng
33) I C16(161) #2	26.79	31704327m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6655998m	336.49093	ng
Spiked Amount	400.0000	Recovery	=	84.12%
11) s C16(152)	20.48	9001961	347.60508	ng
Spiked Amount	401.6000	Recovery	=	86.56%
27) s C13(34) #2	16.48	38447214m	362.83755	ng
Spiked Amount	400.0000	Recovery	=	90.71%
34) s C16(152) #2	23.63	63565678m	366.11708	ng
Spiked Amount	401.6000	Recovery	=	91.16%
Target Compounds				
2) C12(8)	10.21	839791	49.96731	ng
3) C13(18)	12.13	1072495	51.39430	ng
5) C13(28)	14.21	2099709m	56.88642	ng
6) C14(52)	15.84	1445248m	51.63079	ng
7) C14(44)	16.70	1884961m	50.36297	ng
8) C14(66)	18.60	2357148	56.12214	ng
9) C15(101)	19.74	1978292m	46.83538	ng
12) C15(118)	22.40	2421817m	62.57085	ng
13) C16(153)	23.44 TW	2213354m	59.06133	ng
14) C15(105)	23.45 TW	2892733m	61.18445	ng
15) C16(138)	24.54	3068328	64.52997	ng
16) C17(187)	25.29	2378684	56.79230	ng
17) C16(128)	25.63	1970249m	41.66977	ng
18) C17(180)	27.16	2811209	56.73358	ng
19) C17(170)	27.96	3118968	55.48981	ng
20) C18(195)	29.04	2950645	55.93465	ng
21) C19(206)	30.31	2610406m	51.12727	ng
22) C110(209)	30.90	2227140m	53.64063	ng
25) C12(8) #2	13.11	4803227m	53.53132	ng
26) C13(18) #2	15.00	5730276m	55.81920	ng
28) C13(28) #2	17.77	11610435m	60.30400	ng
29) C14(52) #2	19.15	6576079m	57.45568	ng
30) C14(44) #2	19.96	12191361m	61.96997	ng
31) C14(66) #2	22.36	13226713m	60.67601	ng
32) C15(101) #2	23.66	6172709m	49.44082	ng
35) C15(118) #2	26.36	12504691m	63.87147	ng
36) C16(153) #2	26.94	13208490	64.09926	ng
37) C15(105) #2	27.21	16797171m	59.28849	ng
38) C16(138) #2	27.79	11315980m	58.48854	ng
39) C17(187) #2	28.14	12503692m	59.00131	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7272.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0418\M7272.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:49 pm Operator: RR
 Sample : M8387MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0101 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 13:10:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 09:01:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	17156294m	57.50784	ng
41)	Cl7(180) #2	29.59	15476376m	57.91431	ng
42)	Cl7(170) #2	30.22	16772957m	57.53624	ng
43)	Cl8(195) #2	31.09	15637908m	58.42306	ng
44)	Cl9(206) #2	32.18	14171602m	58.70002	ng
45)	Cl10(209) #2	32.63	11768853m	62.77010	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7273.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0418\M7273.D\ECD2B.CH
 Acq On : 27 Oct 2014 12:34 am Operator: RR
 Sample : M8387MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0101 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 13:10:38 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 13:10:33 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3335608	100.00000	ng
10) I C16(161)	23.22	6582280	100.00000	ng
24) I C15(96) #2	20.52	13686861m	100.00000	ng
33) I C16(161) #2	26.80	31391845	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7709034	321.53678	ng
Spiked Amount	400.0000	Recovery	=	80.38%
11) s C16(152)	20.49	10855480	348.62948	ng
Spiked Amount	401.6000	Recovery	=	86.81%
27) s C13(34) #2	16.48	37614456m	355.09112	ng
Spiked Amount	400.0000	Recovery	=	88.77%
34) s C16(152) #2	23.63	62037694m	361.64876	ng
Spiked Amount	401.6000	Recovery	=	90.05%
Target Compounds				
2) C12(8)	10.21	937424	46.29045	ng
3) C13(18)	12.13	1186411	47.04450	ng
5) C13(28)	14.21	2440366	55.25890	ng
6) C14(52)	15.84	1703295	50.86952	ng
7) C14(44)	16.70	2213300	49.45914	ng
8) C14(66)	18.60	2645650	52.46129	ng
9) C15(101)	19.74	2245084m	44.37981	ng
12) C15(118)	22.40	2999609	64.58631	ng
13) C16(153)	23.44 TW	2883456m	64.19526	ng
14) C15(105)	23.45 TW	3185926m	55.53527	ng
15) C16(138)	24.54	3552435	61.94929	ng
16) C17(187)	25.30	2823194	55.97951	ng
17) C16(128)	25.63	2056600m	35.96155	ng
18) C17(180)	27.16	3306051	55.39844	ng
19) C17(170)	27.96	3596779m	53.09069	ng
20) C18(195)	29.04	3417273m	53.76434	ng
21) C19(206)	30.31	3061367m	49.79165	ng
22) C110(209)	30.90	2615915m	52.31170	ng
25) C12(8) #2	13.11	4680367m	52.42564	ng
26) C13(18) #2	15.00	5455216m	53.16313	ng
28) C13(28) #2	17.77	11161786m	58.23223	ng
29) C14(52) #2	19.15	6720353m	59.29584	ng
30) C14(44) #2	19.96	11715249m	59.81294	ng
31) C14(66) #2	22.36	12786458m	58.95215	ng
32) C15(101) #2	23.66	5418979m	43.33009	ng
35) C15(118) #2	26.36	11779606m	60.55892	ng
36) C16(153) #2	26.94	12692051	62.09506	ng
37) C15(105) #2	27.21	16621928	59.25343	ng
38) C16(138) #2	27.79	11791366m	61.51030	ng
39) C17(187) #2	28.14	12327289	58.73964	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7273.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0418\M7273.D\ECD2B.CH
 Acq On : 27 Oct 2014 12:34 am Operator: RR
 Sample : M8387MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0101 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 13:10:38 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 13:10:33 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	16933511	57.32246	ng
41)	Cl7(180) #2	29.59	14927334	56.39651	ng
42)	Cl7(170) #2	30.22	15756207	54.56423	ng
43)	Cl8(195) #2	31.09	14379188m	54.24629	ng
44)	Cl9(206) #2	32.18	12583540m	52.63432	ng
45)	Cl10(209) #2	32.63	10356356m	55.72049	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7274A.D\ECD1A.CH Vial: 43
 Acq On : 10-27-2014 02:03:53 AM Operator: RR
 Sample : M8400-P(2) Inst : INST. M
 Misc : NBH14-0153 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274A.D\ECD2B.CH Vial: 43
 Acq On : 10-27-2014 02:03:52 AM Operator: RR
 Sample : M8400-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:04:50 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:04:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Cl5(96)	17.40	2497949m	95.00000	ng
10) I Cl6(161)	23.22	4430780m	95.00000	ng
24) I Cl5(96) #2	20.52	17718049m	95.00000	ng
33) I Cl6(161) #2	26.80	22703015	95.00000	ng

System Monitoring Compounds				
4) s Cl3(34)	13.40	9405102	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s Cl6(152)	20.49	7994275m	370.32764	ng
Spiked Amount	381.3865	Recovery	=	97.10%
27) s Cl3(34) #2	16.48	45607385m	307.72324	ng
Spiked Amount	379.8670	Recovery	=	81.01%
34) s Cl6(152) #2	23.63	42836505	330.24188	ng
Spiked Amount	381.3865	Recovery	=	86.59%

Target Compounds				
2) Cl2(8)	10.21	E	18448760	BelowCal ng
3) Cl3(18)	12.13	E	57721544	BelowCal ng
5) Cl3(28)	14.20	E	327245959	BelowCal ng
6) Cl4(52)	15.84	E	207635742	BelowCal ng
7) Cl4(44)	16.71	E	71489992	BelowCal ng
8) Cl4(66)	18.48	e	19592744	BelowCal ng
9) Cl5(101)	19.72	E	65023952	BelowCal ng
12) Cl5(118)	22.38	E	59645919m	BelowCal ng
13) Cl6(153)	23.43	E	80688489	BelowCal ng
14) Cl5(105)	23.48		5243600m	143.83771 ng
15) Cl6(138)	24.53	E	58924835	BelowCal ng
16) Cl7(187)	25.30	e	14139573	500.69242 ng
17) Cl6(128)	25.63		6606715m	179.21554 ng
18) Cl7(180)	27.17		12881097m	337.30644 ng
19) Cl7(170)	27.97		9427886m	209.15872 ng
20) Cl8(195)	29.04		2135619	47.27061 ng
21) Cl9(206)	30.31		2856624m	66.37977 ng
22) Cl10(209)	30.91		612421m	16.09569 ng
25) Cl2(8) #2	13.11	E	89477766	BelowCal ng
26) Cl3(18) #2	15.00	E	262078811	BelowCal ng
28) Cl3(28) #2	17.77	E	855799160	BelowCal ng
29) Cl4(52) #2	19.15	E	924139625	BelowCal ng
30) Cl4(44) #2	19.96	E	329573442	BelowCal ng
31) Cl4(66) #2	22.33	E	375514410	BelowCal ng
32) Cl5(101) #2	23.45	E	325717352m	1243.24303 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7274A.D\ECD1A.CH Vial: 43
 Acq On : 10-27-2014 02:03:53 AM Operator: RR
 Sample : M8400-P(2) Inst : INST. M
 Misc : NBH14-0153 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274A.D\ECD2B.CH Vial: 43
 Acq On : 10-27-2014 02:03:52 AM Operator: RR
 Sample : M8400-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:04:50 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:04:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
35)	Cl5(118) #2	26.34	E 222075394	2213.00048	ng
36)	Cl6(153) #2	26.94	E 302773474	1770.25845	ng
37)	Cl5(105) #2	27.21	27974095m	130.36630	ng
38)	Cl6(138) #2	27.79	e 80210904	457.96192	ng
39)	Cl7(187) #2	28.14	e 64812804	388.89840	ng
40)	Cl6(128) #2	28.55	38256557m	168.40560	ng
41)	Cl7(180) #2	29.59	64192297m	299.95568	ng
42)	Cl7(170) #2	30.22	42058793	186.05206	ng
43)	Cl8(195) #2	31.09	9800502m	48.55165	ng
44)	Cl9(206) #2	32.19	12043915m	66.13142	ng
45)	Cl10(209) #2	32.63	2505259m	16.90379	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274B.D\ECD1A.CH Vial: 44
 Signal #2 : I:\M\DATA\SM0418\M7274B.D\ECD2B.CH
 Acq On : 10-27-2014 02:48:40 AM Operator: RR
 Sample : M8401-P(2) Inst : INST. M
 Misc : NBH14-0157 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:04:56 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:04:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.41	2784850m	95.00000	ng
10) I C16(161)	23.23	5113679m	95.00000	ng
24) I C15(96) #2	20.52	18887710m	95.00000	ng
33) I C16(161) #2	26.82	21321835m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	11854246	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.49	8219211	320.95569	ng
Spiked Amount	381.3865	Recovery	=	84.15%
27) s C13(34) #2	16.48	53732219m	354.73740	ng
Spiked Amount	379.8670	Recovery	=	93.38%
34) s C16(152) #2	23.63	38400058	317.29251	ng
Spiked Amount	381.3865	Recovery	=	83.19%
Target Compounds				
2) C12(8)	10.21	E 46914709	BelowCal	ng
3) C13(18)	12.14	E 191077650	BelowCal	ng
5) C13(28)	14.22	E 819309161	BelowCal	ng
6) C14(52)	15.86	E 583161723	BelowCal	ng
7) C14(44)	16.71	E 198032530	BelowCal	ng
8) C14(66)	18.49	E 36133324	BelowCal	ng
9) C15(101)	19.73	E 150476882	BelowCal	ng
12) C15(118)	22.34	E 349941687	BelowCal	ng
13) C16(153)	23.44	E 205490256	BelowCal	ng
14) C15(105)	23.49	10324818m	284.63017	ng
15) C16(138)	24.54	E 145666086	BelowCal	ng
16) C17(187)	25.31	E 41995500	BelowCal	ng
17) C16(128)	25.64	e 16035348	445.34040	ng
18) C17(180)	27.17	E 31019146	804.93705	ng
19) C17(170)	27.97	e 22056274m	453.30192	ng
20) C18(195)	29.05	5431183m	107.39217	ng
21) C19(206)	30.32	7800212m	162.54499	ng
22) C110(209)	30.91	1774554m	43.10315	ng
25) C12(8) #2	13.11	E 202053637	BelowCal	ng
26) C13(18) #2	15.00	E 759420621	BelowCal	ng
28) C13(28) #2	17.77	E 1987553528	BelowCal	ng
29) C14(52) #2	19.16	E 2372303988	BelowCal	ng
30) C14(44) #2	19.96	E 827060225	BelowCal	ng
31) C14(66) #2	22.33	E 836855982	BelowCal	ng
32) C15(101) #2	23.45	E 793725419m	2165.08577	ng
35) C15(118) #2	26.34	E 455759890	BelowCal	ng
36) C16(153) #2	26.94	E 724406812	3838.81032	ng
37) C15(105) #2	27.21	58873420m	280.94070	ng
38) C16(138) #2	27.79	E 156447427	819.22201	ng
39) C17(187) #2	28.15	E 170286443	961.24595	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274B.D\ECD1A.CH Vial: 44
 Signal #2 : I:\M\DATA\SM0418\M7274B.D\ECD2B.CH
 Acq On : 10-27-2014 02:48:40 AM Operator: RR
 Sample : M8401-P(2) Inst : INST. M
 Misc : NBH14-0157 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:04:56 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:04:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	80361304	358.35249	ng
41)	Cl7(180) #2	29.59	e 151712999	671.82088	ng
42)	Cl7(170) #2	30.22	84432289	374.46087	ng
43)	Cl8(195) #2	31.09	23521239m	122.35379	ng
44)	Cl9(206) #2	32.19	29410651m	167.29361	ng
45)	Cl10(209) #2	32.63	5989773m	44.95887	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7274B.D MM0417B.M Tue Nov 18 09:46:45 2014 046776CFS

Signal #1 : I:\M\DATA\SM0418\M7274D.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0418\M7274D.D\ECD2B.CH
 Acq On : 10-27-2014 04:18:16 AM Operator: RR
 Sample : M8404-P(2) Inst : INST. M
 Misc : NBH14-0169 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:08 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:00 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.38	2764098m	95.00000	ng
10) I C16(161)	23.21	5765366m	95.00000	ng
24) I C15(96) #2	20.52	13258912m	95.00000	ng
33) I C16(161) #2	26.80	21017691	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	9426200	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.49	9054655m	312.07392	ng
Spiked Amount	381.3865	Recovery	=	81.83%
27) s C13(34) #2	16.48	42432270m	426.90960	ng
Spiked Amount	379.8670	Recovery	=	112.38%
34) s C16(152) #2	23.63	41154177	340.87296	ng
Spiked Amount	381.3865	Recovery	=	89.38%
Target Compounds				
2) C12(8)	10.21	E 11035956	BelowCal	ng
3) C13(18)	12.13	E 28514287	BelowCal	ng
5) C13(28)	14.20	E 208116155	BelowCal	ng
6) C14(52)	15.84	E 101258777	BelowCal	ng
7) C14(44)	16.71	E 42257829	BelowCal	ng
8) C14(66)	18.65	E 83303966	BelowCal	ng
9) C15(101)	19.73	E 57637217	BelowCal	ng
12) C15(118)	22.41	E 63494491	BelowCal	ng
13) C16(153)	23.44	E 80522295	BelowCal	ng
14) C15(105)	23.49	8696636m	192.88966	ng
15) C16(138)	24.54	E 62572374	BelowCal	ng
16) C17(187)	25.31	8646627m	204.26915	ng
17) C16(128)	25.64	11980181	262.51512	ng
18) C17(180)	27.17	14661775	291.27970	ng
19) C17(170)	27.97	11315891m	191.97655	ng
20) C18(195)	29.05	1769781m	29.43187	ng
21) C19(206)	30.32	2443996m	42.95253	ng
22) C110(209)	30.91	556166m	10.75318	ng
25) C12(8) #2	13.11	E 52764985	BelowCal	ng
26) C13(18) #2	15.00	E 126276849	BelowCal	ng
28) C13(28) #2	17.77	E 518137692	BelowCal	ng
29) C14(52) #2	19.16	E 442438709	BelowCal	ng
30) C14(44) #2	19.96	E 179334378	BelowCal	ng
31) C14(66) #2	22.35	E 262723299	BelowCal	ng
32) C15(101) #2	23.45	E 225113862m	1175.25638	ng
35) C15(118) #2	26.34	E 259477138	BelowCal	ng
36) C16(153) #2	26.94	E 232728779	1503.42211	ng
37) C15(105) #2	27.21	56537211	274.21286	ng
38) C16(138) #2	27.79	e 126756198	704.43799	ng
39) C17(187) #2	28.14	41113592m	273.23518	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274D.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0418\M7274D.D\ECD2B.CH
 Acq On : 10-27-2014 04:18:16 AM Operator: RR
 Sample : M8404-P(2) Inst : INST. M
 Misc : NBH14-0169 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:08 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:00 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	53204573m	247.96396	ng
41)	Cl7(180) #2	29.59	60439481m	304.60881	ng
42)	Cl7(170) #2	30.22	42596270	202.49882	ng
43)	Cl8(195) #2	31.09	7129308m	38.03579	ng
44)	Cl9(206) #2	32.19	6419327m	38.00412	ng
45)	Cl10(209) #2	32.63	1929928m	13.82985	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7274D.D MM0417B.M Tue Nov 18 09:46:47 2014 046776CFS

Signal #1 : I:\M\DATA\SM0418\M7274E.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0418\M7274E.D\ECD2B.CH
 Acq On : 10-27-2014 05:03:05 AM Operator: RR
 Sample : M8405-P(2) Inst : INST. M
 Misc : NBH14-0173 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:14 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2014377m	95.00000	ng
10) I C16(161)	23.21	5579760m	95.00000	ng
24) I C15(96) #2	20.52	13318212m	95.00000	ng
33) I C16(161) #2	26.80	22281197	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9130549	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.49	9882477	361.79671	ng
Spiked Amount	381.3865	Recovery	=	94.86%
27) s C13(34) #2	16.48	43122766m	435.53309	ng
Spiked Amount	379.8670	Recovery	=	114.65%
34) s C16(152) #2	23.63	43891687	342.62723	ng
Spiked Amount	381.3865	Recovery	=	89.84%
Target Compounds				
2) C12(8)	10.21	E 12005286	BelowCal	ng
3) C13(18)	12.13	E 33016408	BelowCal	ng
5) C13(28)	14.20	E 205723812	BelowCal	ng
6) C14(52)	15.84	E 112043937	BelowCal	ng
7) C14(44)	16.71	E 51535409	BelowCal	ng
8) C14(66)	18.63	E 43652666m	BelowCal	ng
9) C15(101)	19.73	E 55110667	BelowCal	ng
12) C15(118)	22.40	E 54856069	BelowCal	ng
13) C16(153)	23.44	E 71913003	BelowCal	ng
14) C15(105)	23.48	8971656m	209.10453	ng
15) C16(138)	24.54	E 55777017	BelowCal	ng
16) C17(187)	25.30	8455870m	206.64305	ng
17) C16(128)	25.64	9700426m	213.20703	ng
18) C17(180)	27.17	12623759	256.59802	ng
19) C17(170)	27.97	9984279m	174.09632	ng
20) C18(195)	29.05	1561604m	26.68211	ng
21) C19(206)	30.32	2218055m	40.16980	ng
22) C110(209)	30.91	547529m	10.96534	ng
25) C12(8) #2	13.11	E 59939644	BelowCal	ng
26) C13(18) #2	15.00	E 150778389	BelowCal	ng
28) C13(28) #2	17.77	E 521292820	BelowCal	ng
29) C14(52) #2	19.15	E 504692761	BelowCal	ng
30) C14(44) #2	19.96	E 229337369	BelowCal	ng
31) C14(66) #2	22.34	E 265102262	BelowCal	ng
32) C15(101) #2	23.45	E 229095650m	1186.21698	ng
35) C15(118) #2	26.34	E 242794462	2712.54890	ng
36) C16(153) #2	26.94	E 224309266	1381.25258	ng
37) C15(105) #2	27.21	45332400	211.03658	ng
38) C16(138) #2	27.79	e 108413804	594.57641	ng
39) C17(187) #2	28.14	38833939m	244.87600	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274E.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0418\M7274E.D\ECD2B.CH
 Acq On : 10-27-2014 05:03:05 AM Operator: RR
 Sample : M8405-P(2) Inst : INST. M
 Misc : NBH14-0173 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:14 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	45043885m	200.47184	ng
41)	Cl7(180) #2	29.59	55137944m	265.45253	ng
42)	Cl7(170) #2	30.22	37502473	169.87618	ng
43)	Cl8(195) #2	31.09	6624486m	33.24202	ng
44)	Cl9(206) #2	32.19	6862591m	38.32923	ng
45)	Cl10(209) #2	32.63	1953614m	13.14148	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7274E.D MM0417B.M Tue Nov 18 09:46:48 2014 046776CFS

Data File : I:\M\DATA\SM0418\M7274F.D\ECD1A.CH Vial: 48
 Acq On : 10-27-2014 05:47:48 AM Operator: RR
 Sample : M8400-P-D(4) Inst : INST. M
 Misc : NBH14-0153 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274F.D\ECD2B.CH Vial: 48
 Acq On : 10-27-2014 05:47:47 AM Operator: RR
 Sample : M8400-P-D(4) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:05:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:05:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Cl5(96)	17.40	3176875m	95.00000	ng
10) I Cl6(161)	23.21	7784313m	95.00000	ng
24) I Cl5(96) #2	20.52	16725519	95.00000	ng
33) I Cl6(161) #2	26.79	40197084m	95.00000	ng
System Monitoring Compounds				
4) s Cl3(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s Cl6(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s Cl3(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s Cl6(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) Cl2(8)	10.21	1368554m	71.58742	ng
3) Cl3(18)	12.13	3673890m	183.44144	ng
5) Cl3(28)	14.20	e 11173682m	343.42533	ng
6) Cl4(52)	15.84	E 14189868m	BelowCal	ng
7) Cl4(44)	16.70	4744709m	116.32113	ng
8) Cl4(66)	18.62	2977544m	59.86552	ng
9) Cl5(101)	19.72	4453127m	92.60734	ng
12) Cl5(118)	22.35	3934966m	68.68236	ng
13) Cl6(153)	23.43	5026479m	91.70827	ng
14) Cl5(105)	0.00	0d	N.D.	ng
15) Cl6(138)	24.52	4153822m	58.14551	ng
16) Cl7(187)	25.29	1117206m	15.96610	ng
17) Cl6(128)	0.00	0d	N.D.	ng
18) Cl7(180)	0.00	0d	N.D.	ng
19) Cl7(170)	0.00	0d	N.D.	ng
20) Cl8(195)	0.00	0d	N.D.	ng
21) Cl9(206)	0.00	0d	N.D.	ng
22) Cl10(209)	0.00	0d	N.D.	ng
25) Cl2(8) #2	13.11	7346876m	65.63776	ng
26) Cl3(18) #2	15.00	22962439m	218.48974	ng
28) Cl3(28) #2	17.77	e 75045152m	415.61029	ng
29) Cl4(52) #2	19.15	E 79852559m	BelowCal	ng
30) Cl4(44) #2	19.96	27321539m	115.07069	ng
31) Cl4(66) #2	22.33	15713729m	56.34457	ng
32) Cl5(101) #2	23.45	28563447m	177.73751	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7274F.D\ECD1A.CH Vial: 48
 Acq On : 10-27-2014 05:47:48 AM Operator: RR
 Sample : M8400-P-D(4) Inst : INST. M
 Misc : NBH14-0153 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274F.D\ECD2B.CH Vial: 48
 Acq On : 10-27-2014 05:47:47 AM Operator: RR
 Sample : M8400-P-D(4) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:05:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:05:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
35)	Cl5(118) #2	26.34	19246667m	74.56138	ng
36)	Cl6(153) #2	26.94	26679299m	98.97978	ng
37)	Cl5(105) #2	0.00	0d	N.D.	ng
38)	Cl6(138) #2	27.84	13387012m	51.88358	ng
39)	Cl7(187) #2	28.14	5994098m	19.71613	ng
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7274G.D\ECD1A.CH Vial: 49
 Acq On : 10-27-2014 06:32:31 AM Operator: RR
 Sample : M8401-P-D(4) Inst : INST. M
 Misc : NBH14-0157 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274G.D\ECD2B.CH Vial: 49
 Acq On : 10-27-2014 06:32:32 AM Operator: RR
 Sample : M8401-P-D(4) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:05:28 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:05:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Cl5(96)	17.39	3510574m	95.00000	ng
10) I Cl6(161)	23.21	8686728m	95.00000	ng
24) I Cl5(96) #2	20.52	17239597m	95.00000	ng
33) I Cl6(161) #2	26.79	40703958	95.00000	ng

System Monitoring Compounds				
4) s Cl3(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s Cl6(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s Cl3(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s Cl6(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%

Target Compounds				
2) Cl2(8)	10.21		3360332	186.83526 ng
3) Cl3(18)	12.13	E	13053245	BelowCal ng
5) Cl3(28)	14.20	E	64401179	BelowCal ng
6) Cl4(52)	15.84	E	43963438	BelowCal ng
7) Cl4(44)	16.70	e	13073624	385.43155 ng
8) Cl4(66)	18.65	e	17085924m	497.86621 ng
9) Cl5(101)	19.72		10022778	205.62110 ng
12) Cl5(118)	22.37		6889349m	112.35081 ng
13) Cl6(153)	23.43	e	12688245m	222.65908 ng
14) Cl5(105)	0.00		0d	N.D. ng
15) Cl6(138)	24.53		9076073	118.97713 ng
16) Cl7(187)	25.29		2909046	40.79604 ng
17) Cl6(128)	25.63		1098271	13.28844 ng
18) Cl7(180)	27.16		1895385	21.61066 ng
19) Cl7(170)	27.97		1395635m	13.53648 ng
20) Cl8(195)	0.00		0d	N.D. ng
21) Cl9(206)	0.00		0d	N.D. ng
22) Cl10(209)	0.00		0d	N.D. ng
25) Cl2(8) #2	13.11		17097890m	166.56321 ng
26) Cl3(18) #2	15.00	E	68429914	BelowCal ng
28) Cl3(28) #2	17.77	E	206563984	BelowCal ng
29) Cl4(52) #2	19.15	E	235324847	BelowCal ng
30) Cl4(44) #2	19.96	e	72435548	375.17293 ng
31) Cl4(66) #2	22.32	e	71111724m	296.21288 ng
32) Cl5(101) #2	23.63		4286539	24.49307 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7274G.D\ECD1A.CH Vial: 49
 Acq On : 10-27-2014 06:32:31 AM Operator: RR
 Sample : M8401-P-D(4) Inst : INST. M
 Misc : NBH14-0157 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274G.D\ECD2B.CH Vial: 49
 Acq On : 10-27-2014 06:32:32 AM Operator: RR
 Sample : M8401-P-D(4) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Oct 28 10:05:28 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)

Title : NBH
 Last Update : Tue Oct 28 10:05:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
35)	Cl5(118) #2	26.33	37312030m	147.43006	ng
36)	Cl6(153) #2	26.94	e 63217141	233.76208	ng
37)	Cl5(105) #2	0.00	0d	N.D.	ng
38)	Cl6(138) #2	27.83	30181051m	112.94960	ng
39)	Cl7(187) #2	28.14	14811720	51.57025	ng
40)	Cl6(128) #2	28.54	5794604m	13.03277	ng
41)	Cl7(180) #2	29.59	10480348m	28.44107	ng
42)	Cl7(170) #2	30.22	6636546m	16.06009	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274H.D\ECD1A.CH Vial: 50
 Signal #2 : I:\M\DATA\SM0418\M7274H.D\ECD2B.CH
 Acq On : 10-27-2014 07:17:11 AM Operator: RR
 Sample : M8402-P-D(4) Inst : INST. M
 Misc : NBH14-0161 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:36 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3643347m	95.00000	ng
10) I C16(161)	23.21	4687937m	95.00000	ng
24) I C15(96) #2	20.52	25778192	95.00000	ng
33) I C16(161) #2	26.79	32087613m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E	93656551	BelowCal ng
3) C13(18)	12.13	E	125977515	BelowCal ng
5) C13(28)	14.19	E	306414681	BelowCal ng
6) C14(52)	15.84	E	212723448	BelowCal ng
7) C14(44)	16.70	E	89493917	BelowCal ng
8) C14(66)	18.65	E	43796603m	BelowCal ng
9) C15(101)	19.71	E	30207261	BelowCal ng
12) C15(118)	22.38	e	12270265m	488.79442 ng
13) C16(153)	23.43	E	31644136m	BelowCal ng
14) C15(105)	23.49		759936m	15.52057 ng
15) C16(138)	24.53	E	29109553	BelowCal ng
16) C17(187)	25.29		7018927m	203.88831 ng
17) C16(128)	25.63		3253817m	78.52899 ng
18) C17(180)	27.16		7946096	188.43129 ng
19) C17(170)	27.97		5765080m	117.47254 ng
20) C18(195)	29.04		1211606m	24.51106 ng
21) C19(206)	30.31		1365854m	29.01284 ng
22) C110(209)	30.90		261553m	5.56687 ng
25) C12(8) #2	13.11	E	382327310	BelowCal ng
26) C13(18) #2	15.00	E	498339423	BelowCal ng
28) C13(28) #2	17.77	E	528916850	BelowCal ng
29) C14(52) #2	19.15	E	873159307	BelowCal ng
30) C14(44) #2	19.96	E	396783401	BelowCal ng
31) C14(66) #2	22.32	E	220065578	BelowCal ng
32) C15(101) #2	23.63		6213940	23.62521 ng
35) C15(118) #2	26.34	e	70941723	371.71774 ng
36) C16(153) #2	26.94	E	126050699	577.73782 ng
37) C15(105) #2	27.21		7028019	22.41378 ng
38) C16(138) #2	27.83	e	109971589m	446.51358 ng
39) C17(187) #2	28.14		31943032m	142.37533 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274H.D\ECD1A.CH Vial: 50
 Signal #2 : I:\M\DATA\SM0418\M7274H.D\ECD2B.CH
 Acq On : 10-27-2014 07:17:11 AM Operator: RR
 Sample : M8402-P-D(4) Inst : INST. M
 Misc : NBH14-0161 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:36 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	19317157m	60.88903	ng
41)	Cl7(180) #2	29.59	38121672m	132.66717	ng
42)	Cl7(170) #2	30.22	23013671m	74.09097	ng
43)	Cl8(195) #2	31.09	6233550	21.36866	ng
44)	Cl9(206) #2	32.18	6033887m	23.09370	ng
45)	Cl10(209) #2	32.62	1351038m	5.55303	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7274H.D MM0417B.M Tue Nov 18 09:46:52 2014 046776CFS

Signal #1 : I:\M\DATA\SM0418\M7274I.D\ECD1A.CH Vial: 51
 Signal #2 : I:\M\DATA\SM0418\M7274I.D\ECD2B.CH
 Acq On : 10-27-2014 08:02:03 AM Operator: RR
 Sample : M8404-P-D(4) Inst : INST. M
 Misc : NBH14-0169 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:42 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3243028m	95.00000	ng
10) I C16(161)	23.21	7746904m	95.00000	ng
24) I C15(96) #2	20.52	17180000	95.00000	ng
33) I C16(161) #2	26.79	39175001m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	848049m	40.49339	ng
3) C13(18)	12.13	2129566m	91.20607	ng
5) C13(28)	14.20	e 13215964m	449.89210	ng
6) C14(52)	15.83	e 6770195m	268.09974	ng
7) C14(44)	16.70	2906827m	65.57609	ng
8) C14(66)	18.62	2534768m	49.04182	ng
9) C15(101)	19.72	4039880m	81.51282	ng
12) C15(118)	22.39	4118094m	72.54571	ng
13) C16(153)	23.43	4307107m	78.31720	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	4147990m	58.35728	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	4218167m	34.55531	ng
26) C13(18) #2	15.00	10966550m	86.79073	ng
28) C13(28) #2	17.77	43011725	191.88263	ng
29) C14(52) #2	19.15	e 39728263	385.52422	ng
30) C14(44) #2	19.96	15931321m	61.94598	ng
31) C14(66) #2	22.34	12355082m	42.30428	ng
32) C15(101) #2	23.45	21261898m	130.98652	ng
35) C15(118) #2	26.34	23340341	93.89241	ng
36) C16(153) #2	26.94	21419593	80.99050	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	11433730	45.50592	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274I.D\ECD1A.CH Vial: 51
 Signal #2 : I:\M\DATA\SM0418\M7274I.D\ECD2B.CH
 Acq On : 10-27-2014 08:02:03 AM Operator: RR
 Sample : M8404-P-D(4) Inst : INST. M
 Misc : NBH14-0169 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:42 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274J.D\ECD1A.CH Vial: 52
 Signal #2 : I:\M\DATA\SM0418\M7274J.D\ECD2B.CH
 Acq On : 10-27-2014 08:46:39 AM Operator: RR
 Sample : M8405-P-D(4) Inst : INST. M
 Misc : NBH14-0173 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3234848	95.00000	ng
10) I C16(161)	23.22	7146689	95.00000	ng
24) I C15(96) #2	20.52	15400055	95.00000	ng
33) I C16(161) #2	26.79	34738680m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	943584	45.88688	ng
3) C13(18)	12.13	2523612	111.91976	ng
5) C13(28)	14.20	e 13189041	450.37879	ng
6) C14(52)	15.84	e 7624236	322.64558	ng
7) C14(44)	16.70	3556490	82.30816	ng
8) C14(66)	18.62	2198905m	42.06345	ng
9) C15(101)	19.72	3765537	75.77275	ng
12) C15(118)	22.39	3121704	58.59250	ng
13) C16(153)	23.43	4073488m	80.39532	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	3481836	52.76818	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	4758579m	44.54414	ng
26) C13(18) #2	14.99	12784211m	117.75131	ng
28) C13(28) #2	17.76	40509599	203.49930	ng
29) C14(52) #2	19.15	e 40019259m	515.58095	ng
30) C14(44) #2	19.96	18581295	82.40425	ng
31) C14(66) #2	22.33	11336881m	43.37926	ng
32) C15(101) #2	23.45	19029364m	130.79028	ng
35) C15(118) #2	26.34	18363045	82.77770	ng
36) C16(153) #2	26.94	17774504	75.57816	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	8516640	38.21860	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274J.D\ECD1A.CH Vial: 52
 Signal #2 : I:\M\DATA\SM0418\M7274J.D\ECD2B.CH
 Acq On : 10-27-2014 08:46:39 AM Operator: RR
 Sample : M8405-P-D(4) Inst : INST. M
 Misc : NBH14-0173 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7275.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0418\M7275.D\ECD2B.CH
 Acq On : 27 Oct 2014 10:15 am Operator: RR
 Sample : M8152-P-D(4) Inst : INST. M
 Misc : NBH14-0001 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:54 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3406914	95.00000	ng
10) I C16(161)	23.21	8028174m	95.00000	ng
24) I C15(96) #2	20.52	14052605m	95.00000	ng
33) I C16(161) #2	26.79	33291203m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	911841	41.58602	ng
3) C13(18)	12.13	2209336m	89.87229	ng
5) C13(28)	14.19	e 18184512m	BelowCal	ng
6) C14(52)	15.83	e 7605992	296.22170	ng
7) C14(44)	16.70	3081806	66.24553	ng
8) C14(66)	18.62	2181801m	39.38854	ng
9) C15(101)	19.71	4135493	79.26798	ng
12) C15(118)	22.39	2954083	48.60341	ng
13) C16(153)	23.43	4656390m	81.88534	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	3637543m	48.83276	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	4527504m	46.64211	ng
26) C13(18) #2	14.99	10291321m	101.72845	ng
28) C13(28) #2	17.76	51373807	308.18421	ng
29) C14(52) #2	19.15	e 38620927	BelowCal	ng
30) C14(44) #2	19.96	14454577m	69.28923	ng
31) C14(66) #2	22.34	8446757m	34.87749	ng
32) C15(101) #2	23.45	18161786m	136.55182	ng
35) C15(118) #2	26.34	15563541	72.69771	ng
36) C16(153) #2	26.94	17684810	78.59351	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	6767744	31.63515	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7275.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0418\M7275.D\ECD2B.CH
 Acq On : 27 Oct 2014 10:15 am Operator: RR
 Sample : M8152-P-D(4) Inst : INST. M
 Misc : NBH14-0001 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:05:54 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7276.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0418\M7276.D\ECD2B.CH
 Acq On : 27 Oct 2014 11:00 am Operator: RR
 Sample : M8153-P-D(4) Inst : INST. M
 Misc : NBH14-0005 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:00 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:52 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3482089	95.00000	ng
10) I C16(161)	23.21	7903402m	95.00000	ng
24) I C15(96) #2	20.52	15867156m	95.00000	ng
33) I C16(161) #2	26.79	38113503m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	1298168	60.69703	ng
3) C13(18)	12.13	2840169	118.08916	ng
5) C13(28)	14.20	E 23775945	BelowCal	ng
6) C14(52)	15.84	e 10710274	BelowCal	ng
7) C14(44)	16.70	4523218	99.26086	ng
8) C14(66)	18.62	3243028m	59.45094	ng
9) C15(101)	19.72	5756299	110.85231	ng
12) C15(118)	22.39	4446533m	77.16651	ng
13) C16(153)	23.42	6693327m	122.39606	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.52	5003139m	69.74166	ng
16) C17(187)	25.29	1209045	17.18175	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	27.16	1251198	15.13187	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	6558076m	61.36884	ng
26) C13(18) #2	14.99	14870330m	135.91124	ng
28) C13(28) #2	17.76	e 73789810	440.98747	ng
29) C14(52) #2	19.15	e 59281760	BelowCal	ng
30) C14(44) #2	19.96	23819277m	104.75141	ng
31) C14(66) #2	22.34	16803012m	64.05889	ng
32) C15(101) #2	23.45	28900706m	188.71996	ng
35) C15(118) #2	26.34	25586779m	106.42650	ng
36) C16(153) #2	26.94	27770769	108.93893	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	11055720	45.22775	ng
39) C17(187) #2	28.14	5695234m	19.76257	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7276.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0418\M7276.D\ECD2B.CH
 Acq On : 27 Oct 2014 11:00 am Operator: RR
 Sample : M8153-P-D(4) Inst : INST. M
 Misc : NBH14-0005 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:00 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:52 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	29.59	6385935m	17.93570	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7277.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0418\M7277.D\ECD2B.CH
 Acq On : 27 Oct 2014 11:44 am Operator: RR
 Sample : M8154-P-D(4) Inst : INST. M
 Misc : NBH14-0009 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:58 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3382846m	95.00000	ng
10) I C16(161)	23.21	8278172	95.00000	ng
24) I C15(96) #2	20.52	14300558m	95.00000	ng
33) I C16(161) #2	26.79	32571241m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	2059693m	106.87329	ng
3) C13(18)	12.13	4381368	214.37474	ng
5) C13(28)	14.20	E 26282837	BelowCal	ng
6) C14(52)	15.83	e 11688652	BelowCal	ng
7) C14(44)	16.70	6331453	151.21384	ng
8) C14(66)	18.61	3486560m	66.45683	ng
9) C15(101)	19.71	6877788	139.37188	ng
12) C15(118)	22.39	5216880m	87.32349	ng
13) C16(153)	23.42	6841556m	119.23490	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	5582799	74.59836	ng
16) C17(187)	25.29	1199800	16.14793	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	27.16	1421047	16.57453	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	9279578m	101.48252	ng
26) C13(18) #2	14.99	19942133m	223.04495	ng
28) C13(28) #2	17.76	e 71805245	507.73977	ng
29) C14(52) #2	19.15	e 59157654	BelowCal	ng
30) C14(44) #2	19.96	29124079m	147.68669	ng
31) C14(66) #2	22.34	16831473m	71.75074	ng
32) C15(101) #2	23.44	26839479m	194.03154	ng
35) C15(118) #2	26.33	25663002m	125.85319	ng
36) C16(153) #2	26.94	26212410	120.59410	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	10940633	52.32564	ng
39) C17(187) #2	28.14	4924163m	20.02470	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7277.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0418\M7277.D\ECD2B.CH
 Acq On : 27 Oct 2014 11:44 am Operator: RR
 Sample : M8154-P-D(4) Inst : INST. M
 Misc : NBH14-0009 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:05:58 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	29.58	5792629m	19.14252	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7278.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0418\M7278.D\ECD2B.CH
 Acq On : 27 Oct 2014 12:29 pm Operator: RR
 Sample : M8155-P-D(4) Inst : INST. M
 Misc : NBH14-0013 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:12 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3070304m	95.00000	ng
10) I C16(161)	23.21	7326429	95.00000	ng
24) I C15(96) #2	20.52	14612568m	95.00000	ng
33) I C16(161) #2	26.79	33562683m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	2279547m	135.51689	ng
3) C13(18)	12.13	e 4717027	278.44259	ng
5) C13(28)	14.20	E 30795605	BelowCal	ng
6) C14(52)	15.84	e 10583020	BelowCal	ng
7) C14(44)	16.70	7378060	205.04642	ng
8) C14(66)	18.60	4385867m	95.40532	ng
9) C15(101)	19.72	8368636	194.72287	ng
12) C15(118)	22.39	7623570	152.00449	ng
13) C16(153)	23.43	7802256m	156.79082	ng
14) C15(105)	23.46	1603028m	21.90757	ng
15) C16(138)	24.53	5875241	89.69366	ng
16) C17(187)	25.29	1091164	16.66199	ng
17) C16(128)	25.63	1109978	16.07537	ng
18) C17(180)	27.16	1405763	18.76077	ng
19) C17(170)	27.96	1050365m	11.89723	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	11392866m	125.23205	ng
26) C13(18) #2	14.99	24314715m	285.23193	ng
28) C13(28) #2	17.76	e 95272931	BelowCal	ng
29) C14(52) #2	19.15	e 57088717	BelowCal	ng
30) C14(44) #2	19.96	40147148	210.51036	ng
31) C14(66) #2	22.35	22568945m	96.19382	ng
32) C15(101) #2	23.45	39347848m	269.33766	ng
35) C15(118) #2	26.34	40243528	195.19485	ng
36) C16(153) #2	26.94	31181408	139.56155	ng
37) C15(105) #2	27.21	7609101m	23.26166	ng
38) C16(138) #2	27.78	15061461	69.58145	ng
39) C17(187) #2	28.14	5073739m	20.02331	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7278.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0418\M7278.D\ECD2B.CH
 Acq On : 27 Oct 2014 12:29 pm Operator: RR
 Sample : M8155-P-D(4) Inst : INST. M
 Misc : NBH14-0013 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:12 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	6035009	16.98670	ng
41)	Cl7(180) #2	29.59	7327007m	23.87545	ng
42)	Cl7(170) #2	30.22	5139702m	14.99987	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7281.D\ECD1A.CH Vial: 31
 Signal #2 : I:\M\DATA\SM0418\M7281.D\ECD2B.CH
 Acq On : 10-27-2014 02:43:03 PM Operator: RR
 Sample : M8356-P-D(4) Inst : INST. M
 Misc : NBH14-0207 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:28 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3597548m	95.00000	ng
10) I C16(161)	23.21	8394196m	95.00000	ng
24) I C15(96) #2	20.52	14517179m	95.00000	ng
33) I C16(161) #2	26.79	31795320m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	2810574	144.25536	ng
3) C13(18)	12.13	e 6692119	431.19372	ng
5) C13(28)	14.20	E 45569802	BelowCal	ng
6) C14(52)	15.83	E 21783042	BelowCal	ng
7) C14(44)	16.70	7217715	164.26779	ng
8) C14(66)	18.62	4388801m	80.04752	ng
9) C15(101)	19.71	7419882	141.62470	ng
12) C15(118)	22.35	6239368m	104.61526	ng
13) C16(153)	23.43	8780918m	153.76373	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.52	6122146m	81.07782	ng
16) C17(187)	25.29	1917292	26.91949	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	27.16	1613298m	18.79501	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	10954573m	120.58658	ng
26) C13(18) #2	15.00	e 31644973	467.07564	ng
28) C13(28) #2	17.76	E 124047121	BelowCal	ng
29) C14(52) #2	19.15	E 103987635	BelowCal	ng
30) C14(44) #2	19.96	33920036	173.27789	ng
31) C14(66) #2	22.33	19853390m	84.33314	ng
32) C15(101) #2	23.45	32157507m	225.89947	ng
35) C15(118) #2	26.33	23271837m	116.51205	ng
36) C16(153) #2	26.94	34144666	161.57893	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.83	16593753m	80.59946	ng
39) C17(187) #2	28.14	7135062m	30.94235	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7281.D\ECD1A.CH Vial: 31
 Signal #2 : I:\M\DATA\SM0418\M7281.D\ECD2B.CH
 Acq On : 10-27-2014 02:43:03 PM Operator: RR
 Sample : M8356-P-D(4) Inst : INST. M
 Misc : NBH14-0207 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:28 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	29.59	7095428m	24.44178	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7282.D\ECD1A.CH Vial: 32
 Signal #2 : I:\M\DATA\SM0418\M7282.D\ECD2B.CH
 Acq On : 10-27-2014 03:27:38 PM Operator: RR
 Sample : M8357-P-D(4) Inst : INST. M
 Misc : NBH14-0211 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:35 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Cl5(96)	17.39	3055648m	95.00000	ng
10) I Cl6(161)	23.21	4919129m	95.00000	ng
24) I Cl5(96) #2	20.52	16252217m	95.00000	ng
33) I Cl6(161) #2	26.79	33831910m	95.00000	ng
System Monitoring Compounds				
4) s Cl3(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s Cl6(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s Cl3(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s Cl6(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) Cl2(8)	10.21	e	6020286m	BelowCal ng
3) Cl3(18)	12.13	E	14749305	BelowCal ng
5) Cl3(28)	14.20	E	49645907	BelowCal ng
6) Cl4(52)	15.83	E	41105142	BelowCal ng
7) Cl4(44)	16.70	e	12299243	450.05524 ng
8) Cl4(66)	18.64		5614602m	126.82864 ng
9) Cl5(101)	19.71		7425660	170.51848 ng
12) Cl5(118)	22.38		3774031m	108.32167 ng
13) Cl6(153)	23.42		8093784m	255.17269 ng
14) Cl5(105)	0.00		0d	N.D. ng
15) Cl6(138)	24.52		5909017m	138.22297 ng
16) Cl7(187)	25.29		2145745m	54.14676 ng
17) Cl6(128)	0.00		0d	N.D. ng
18) Cl7(180)	27.16		1229908m	25.06306 ng
19) Cl7(170)	0.00		0d	N.D. ng
20) Cl8(195)	0.00		0d	N.D. ng
21) Cl9(206)	0.00		0d	N.D. ng
22) Cl10(209)	0.00		0d	N.D. ng
25) Cl2(8) #2	13.11	e	34641095	BelowCal ng
26) Cl3(18) #2	15.00	E	74230608	BelowCal ng
28) Cl3(28) #2	17.77	E	147495913	BelowCal ng
29) Cl4(52) #2	19.15	E	209746464	BelowCal ng
30) Cl4(44) #2	19.96	e	64627681	344.61363 ng
31) Cl4(66) #2	22.32		30598674m	119.38977 ng
32) Cl5(101) #2	23.45		46137482m	282.29154 ng
35) Cl5(118) #2	26.34		24523226	115.33365 ng
36) Cl6(153) #2	26.94		42813240	190.55746 ng
37) Cl5(105) #2	0.00		0d	N.D. ng
38) Cl6(138) #2	27.83		22495493m	101.79111 ng
39) Cl7(187) #2	28.14		10434472	43.39337 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7282.D\ECD1A.CH Vial: 32
 Signal #2 : I:\M\DATA\SM0418\M7282.D\ECD2B.CH
 Acq On : 10-27-2014 03:27:38 PM Operator: RR
 Sample : M8357-P-D(4) Inst : INST. M
 Misc : NBH14-0211 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:35 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	29.59	6301395m	20.12774	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7283.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0418\M7283.D\ECD2B.CH
 Acq On : 10-27-2014 04:12:07 PM Operator: RR
 Sample : M8360-P-D(4) Inst : INST. M
 Misc : NBH14-0220 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:41 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:33 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3289085m	95.00000	ng
10) I C16(161)	23.21	8015995m	95.00000	ng
24) I C15(96) #2	20.52	15128658	95.00000	ng
33) I C16(161) #2	26.79	36734170	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	485713m	20.69513	ng
3) C13(18)	12.13	1119327	42.44612	ng
5) C13(28)	14.20	5046998m	119.29524	ng
6) C14(52)	15.84	4304908	146.00482	ng
7) C14(44)	16.70	2078637	44.51147	ng
8) C14(66)	18.61	1896272m	35.07179	ng
9) C15(101)	19.72	3398893	66.67950	ng
12) C15(118)	22.39	3459059	57.82140	ng
13) C16(153)	23.42	3671090m	63.89114	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	3450492m	46.22584	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	2180545m	18.95873	ng
26) C13(18) #2	15.00	5322922	43.70466	ng
28) C13(28) #2	17.76	25184101	120.36282	ng
29) C14(52) #2	19.15	19906594m	172.89309	ng
30) C14(44) #2	19.96	9865528	42.40909	ng
31) C14(66) #2	22.34	7723926m	29.22726	ng
32) C15(101) #2	23.45	14852140m	104.57846	ng
35) C15(118) #2	26.34	15945400	67.19604	ng
36) C16(153) #2	26.94	14729101	58.47243	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	8626080m	36.59751	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7283.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0418\M7283.D\ECD2B.CH
 Acq On : 10-27-2014 04:12:07 PM Operator: RR
 Sample : M8360-P-D(4) Inst : INST. M
 Misc : NBH14-0220 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:41 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:33 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7284.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0418\M7284.D\ECD2B.CH
 Acq On : 10-27-2014 04:56:42 PM Operator: RR
 Sample : M8361-P-D(4) Inst : INST. M
 Misc : NBH14-0224 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:45 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2992240	95.00000	ng
10) I C16(161)	23.21	6558205	95.00000	ng
24) I C15(96) #2	20.52	15340131	95.00000	ng
33) I C16(161) #2	26.79	35625740	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	405264	13.49656	ng
5) C13(28)	14.20	953815m	20.96001	ng
6) C14(52)	15.84	1041977	30.50625	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	2135912m	13.74759	ng
28) C13(28) #2	17.76	5987036	24.90780	ng
29) C14(52) #2	19.15	5527127m	40.07457	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7284.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0418\M7284.D\ECD2B.CH
 Acq On : 10-27-2014 04:56:42 PM Operator: RR
 Sample : M8361-P-D(4) Inst : INST. M
 Misc : NBH14-0224 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:45 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7286.D\ECD1A.CH Vial: 36
 Signal #2 : I:\M\DATA\SM0418\M7286.D\ECD2B.CH
 Acq On : 10-27-2014 06:25:45 PM Operator: RR
 Sample : M8362-P-D(4) Inst : INST. M
 Misc : NBH14-0228 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:51 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2943758m	95.00000	ng
10) I C16(161)	23.21	6367899m	95.00000	ng
24) I C15(96) #2	20.52	14963886m	95.00000	ng
33) I C16(161) #2	26.79	34699727m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	634541	32.40328	ng
3) C13(18)	12.12	1528149	69.31808	ng
5) C13(28)	14.20	3487467m	89.19146	ng
6) C14(52)	15.83	3306042m	121.47909	ng
7) C14(44)	16.70	1484538	34.60340	ng
8) C14(66)	18.61	762723m	14.05082	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.36	649447m	11.07961	ng
13) C16(153)	23.42	797360m	16.34890	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	3250734m	30.16035	ng
26) C13(18) #2	14.99	7880054m	69.57697	ng
28) C13(28) #2	17.76	19528574m	92.04441	ng
29) C14(52) #2	19.15	18430909m	159.59603	ng
30) C14(44) #2	19.96	7522110m	32.04185	ng
31) C14(66) #2	22.33	3632298m	12.72959	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.33	3347603m	12.06395	ng
36) C16(153) #2	26.94	3916799m	13.68129	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7286.D\ECD1A.CH Vial: 36
 Signal #2 : I:\M\DATA\SM0418\M7286.D\ECD2B.CH
 Acq On : 10-27-2014 06:25:45 PM Operator: RR
 Sample : M8362-P-D(4) Inst : INST. M
 Misc : NBH14-0228 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:51 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7287.D\ECD1A.CH Vial: 37
 Signal #2 : I:\M\DATA\SM0418\M7287.D\ECD2B.CH
 Acq On : 10-27-2014 07:10:12 PM Operator: RR
 Sample : M8363-P-D(4) Inst : INST. M
 Misc : NBH14-0232 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:57 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:49 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3086995	95.00000	ng
10) I C16(161)	23.21	6755595m	95.00000	ng
24) I C15(96) #2	20.52	15614619m	95.00000	ng
33) I C16(161) #2	26.79	35348992m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	892352	45.41544	ng
3) C13(18)	12.13	2181455	99.46317	ng
5) C13(28)	14.20	7937030m	221.12721	ng
6) C14(52)	15.83	e 6878455	295.34695	ng
7) C14(44)	16.70	3153129	75.82207	ng
8) C14(66)	18.62	2314774m	46.85723	ng
9) C15(101)	19.71	3740610	79.11873	ng
12) C15(118)	22.39	3587808	72.47260	ng
13) C16(153)	23.42	4318266m	90.73150	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	3893849	63.12127	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	4466710m	40.91329	ng
26) C13(18) #2	14.99	11524439m	102.65028	ng
28) C13(28) #2	17.77	44650806	225.10787	ng
29) C14(52) #2	19.15	e 41598647	BelowCal	ng
30) C14(44) #2	19.96	18595287	81.23725	ng
31) C14(66) #2	22.34	12700342m	48.27776	ng
32) C15(101) #2	23.44	20385600m	137.88030	ng
35) C15(118) #2	26.34	21790582	97.31400	ng
36) C16(153) #2	26.94	20791504	87.36794	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	11047075	48.71040	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7287.D\ECD1A.CH Vial: 37
 Signal #2 : I:\M\DATA\SM0418\M7287.D\ECD2B.CH
 Acq On : 10-27-2014 07:10:12 PM Operator: RR
 Sample : M8363-P-D(4) Inst : INST. M
 Misc : NBH14-0232 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:06:57 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:49 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7288.D\ECD1A.CH Vial: 38
 Signal #2 : I:\M\DATA\SM0418\M7288.D\ECD2B.CH
 Acq On : 10-27-2014 07:54:44 PM Operator: RR
 Sample : M8368-P-D(4) Inst : INST. M
 Misc : NBH14-0245 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:07:03 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3094014m	95.00000	ng
10) I C16(161)	23.21	8070732m	95.00000	ng
24) I C15(96) #2	20.52	15871908m	95.00000	ng
33) I C16(161) #2	26.79	37391478m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	e 4473516	358.27903	ng
3) C13(18)	12.13	e 9149746	BelowCal	ng
5) C13(28)	14.19	E 42565413	BelowCal	ng
6) C14(52)	15.83	E 19108141	BelowCal	ng
7) C14(44)	16.70	e 9741855	294.76985	ng
8) C14(66)	18.61	4987484m	109.27902	ng
9) C15(101)	19.72	9146418	214.28053	ng
12) C15(118)	22.39	7324314	130.42741	ng
13) C16(153)	23.42	8336426m	151.66074	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	6541908	90.72409	ng
16) C17(187)	25.29	1505828	21.51024	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	27.16	1555058	18.84768	ng
19) C17(170)	27.96	1198429m	12.38273	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	e 26136102	332.79559	ng
26) C13(18) #2	14.99	e 49306810	BelowCal	ng
28) C13(28) #2	17.76	E 135643635	BelowCal	ng
29) C14(52) #2	19.15	E 109700439	BelowCal	ng
30) C14(44) #2	19.96	54161431	277.70728	ng
31) C14(66) #2	22.34	28670805m	114.09202	ng
32) C15(101) #2	23.45	e 50670773m	313.04694	ng
35) C15(118) #2	26.33	44217306	192.38588	ng
36) C16(153) #2	26.94	40756590m	164.02158	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.83	19538857m	80.69764	ng
39) C17(187) #2	28.14	7537353m	27.54558	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7288.D\ECD1A.CH Vial: 38
 Signal #2 : I:\M\DATA\SM0418\M7288.D\ECD2B.CH
 Acq On : 10-27-2014 07:54:44 PM Operator: RR
 Sample : M8368-P-D(4) Inst : INST. M
 Misc : NBH14-0245 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:07:03 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:06:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	29.59	8434116m	24.72221	ng
42)	Cl7(170) #2	30.22	5547388m	14.48826	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7289.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0418\M7289.D\ECD2B.CH
 Acq On : 10-27-2014 08:39:10 PM Operator: RR
 Sample : M8369-P-D(4) Inst : INST. M
 Misc : NBH14-0249 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:07:09 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:07:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3251142m	95.00000	ng
10) I C16(161)	23.21	7835514m	95.00000	ng
24) I C15(96) #2	20.52	14761140m	95.00000	ng
33) I C16(161) #2	26.79	34597478m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	1388570	70.88733	ng
3) C13(18)	12.13	3860656	190.08752	ng
5) C13(28)	14.20	e 10939262m	320.50787	ng
6) C14(52)	15.83	e 11558861	BelowCal	ng
7) C14(44)	16.70	4426253	104.67787	ng
8) C14(66)	18.62	2729073m	53.03931	ng
9) C15(101)	19.71	4576450	93.03111	ng
12) C15(118)	22.36	3537979m	60.74518	ng
13) C16(153)	23.42	5270923m	95.76888	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	4013347m	55.66186	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	6507041m	65.89564	ng
26) C13(18) #2	15.00	18799732	198.20143	ng
28) C13(28) #2	17.76	e 62816043	382.62206	ng
29) C14(52) #2	19.15	e 56882513m	BelowCal	ng
30) C14(44) #2	19.96	22065153	104.26045	ng
31) C14(66) #2	22.33	13080848m	52.92396	ng
32) C15(101) #2	23.45	21433485m	152.57886	ng
35) C15(118) #2	26.33	17944121m	81.13439	ng
36) C16(153) #2	26.94	21897437	94.24930	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	7622060	34.31635	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7289.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0418\M7289.D\ECD2B.CH
 Acq On : 10-27-2014 08:39:10 PM Operator: RR
 Sample : M8369-P-D(4) Inst : INST. M
 Misc : NBH14-0249 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:07:09 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:07:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7290.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0418\M7290.D\ECD2B.CH
 Acq On : 10-27-2014 09:23:42 PM Operator: RR
 Sample : M8370-P-D(4) Inst : INST. M
 Misc : NBH14-0253 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:07:15 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:07:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3217440m	95.00000	ng
10) I C16(161)	23.21	7679457m	95.00000	ng
24) I C15(96) #2	20.52	15166553m	95.00000	ng
33) I C16(161) #2	26.79	35188862m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	2624806m	152.21868	ng
3) C13(18)	12.13	e 6576247	BelowCal	ng
5) C13(28)	14.19	e 15550142m	BelowCal	ng
6) C14(52)	15.83	E 17413342	BelowCal	ng
7) C14(44)	16.70	5429760	133.92590	ng
8) C14(66)	18.61	3192231m	63.73143	ng
9) C15(101)	19.71	5432419	113.45335	ng
12) C15(118)	22.38	4614092m	82.89528	ng
13) C16(153)	23.42	6602602m	124.39426	ng
14) C15(105)	23.46	1448610m	18.50063	ng
15) C16(138)	24.53	5566239m	80.54467	ng
16) C17(187)	25.29	1195110	17.52212	ng
17) C16(128)	25.62	1146142	15.82432	ng
18) C17(180)	27.16	1248498m	15.59263	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	12950085m	139.26039	ng
26) C13(18) #2	14.99	e 33003920	464.92576	ng
28) C13(28) #2	17.76	e 84524117	676.81529	ng
29) C14(52) #2	19.15	E 90323481	BelowCal	ng
30) C14(44) #2	19.96	28117569	132.67247	ng
31) C14(66) #2	22.33	17086228m	68.45595	ng
32) C15(101) #2	23.45	22276525m	154.24810	ng
35) C15(118) #2	26.33	23745379m	107.00283	ng
36) C16(153) #2	26.94	25286510	107.40015	ng
37) C15(105) #2	27.20	6975916m	20.11902	ng
38) C16(138) #2	27.78	13226820	58.47496	ng
39) C17(187) #2	28.14	5322105m	20.03408	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7290.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0418\M7290.D\ECD2B.CH
 Acq On : 10-27-2014 09:23:42 PM Operator: RR
 Sample : M8370-P-D(4) Inst : INST. M
 Misc : NBH14-0253 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 10:07:15 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 10:07:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	5832487m	15.50304	ng
41)	Cl7(180) #2	29.59	6054865m	18.46539	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7326.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0419\M7326.D\ECD2B.CH
 Acq On : 10-29-2014 05:15:30 PM Operator: RR
 Sample : M8152-P-D(5) Inst : INST. M
 Misc : NBH14-0001 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:02 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:19:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2767041	100.00000	ng
10) I C16(161)	23.22	5696514	100.00000	ng
24) I C15(96) #2	20.52	15194168	100.00000	ng
33) I C16(161) #2	26.79	35447285	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	495127m	11.19905	ng
6) C14(52)	15.84	478900m	12.52177	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	3420888m	14.13723	ng
29) C14(52) #2	19.15	2642112m	18.60048	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7326.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0419\M7326.D\ECD2B.CH
 Acq On : 10-29-2014 05:15:30 PM Operator: RR
 Sample : M8152-P-D(5) Inst : INST. M
 Misc : NBH14-0001 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:02 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:19:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7327.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0419\M7327.D\ECD2B.CH
 Acq On : 10-29-2014 06:00:05 PM Operator: RR
 Sample : M8153-P-D(5) Inst : INST. M
 Misc : NBH14-0005 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2816223	100.00000	ng
10) I C16(161)	23.22	6320722	100.00000	ng
24) I C15(96) #2	20.52	14969586m	100.00000	ng
33) I C16(161) #2	26.79	36607115	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	194519	4.72131	ng
5) C13(28)	14.19	723342m	17.23025	ng
6) C14(52)	15.84	674689	19.88524	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	1043532m	4.49867	ng
28) C13(28) #2	17.76	4350267m	18.90402	ng
29) C14(52) #2	19.15	3801139m	28.61298	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7327.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0419\M7327.D\ECD2B.CH
 Acq On : 10-29-2014 06:00:05 PM Operator: RR
 Sample : M8153-P-D(5) Inst : INST. M
 Misc : NBH14-0005 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:06 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7328.D\ECD1A.CH Vial: 36
 Signal #2 : I:\M\DATA\SM0419\M7328.D\ECD2B.CH
 Acq On : 10-29-2014 06:44:43 PM Operator: RR
 Sample : M8154-P-D(5) Inst : INST. M
 Misc : NBH14-0009 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:11 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2949879	100.00000	ng
10) I C16(161)	23.21	6663226	100.00000	ng
24) I C15(96) #2	20.52	15313576m	100.00000	ng
33) I C16(161) #2	26.79	36886426	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.19	831062m	19.16796	ng
6) C14(52)	15.83	808497m	23.74137	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	5118309m	22.09699	ng
29) C14(52) #2	19.15	4390921m	32.76576	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7328.D\ECD1A.CH Vial: 36
 Signal #2 : I:\M\DATA\SM0419\M7328.D\ECD2B.CH
 Acq On : 10-29-2014 06:44:43 PM Operator: RR
 Sample : M8154-P-D(5) Inst : INST. M
 Misc : NBH14-0009 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:11 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7329.D\ECD1A.CH Vial: 37
 Signal #2 : I:\M\DATA\SM0419\M7329.D\ECD2B.CH
 Acq On : 10-29-2014 07:29:22 PM Operator: RR
 Sample : M8155-P-D(5) Inst : INST. M
 Misc : NBH14-0013 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:16 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:10 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2990561	100.00000	ng
10) I C16(161)	23.22	6552986	100.00000	ng
24) I C15(96) #2	20.52	14533596m	100.00000	ng
33) I C16(161) #2	26.79	33301359	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	336953	10.93312	ng
5) C13(28)	14.19	967863m	22.44533	ng
6) C14(52)	15.83	769131m	21.85060	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	1788655m	12.13819	ng
28) C13(28) #2	17.76	5725981m	26.49133	ng
29) C14(52) #2	19.15	3856955m	30.05998	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7329.D\ECD1A.CH Vial: 37
 Signal #2 : I:\M\DATA\SM0419\M7329.D\ECD2B.CH
 Acq On : 10-29-2014 07:29:22 PM Operator: RR
 Sample : M8155-P-D(5) Inst : INST. M
 Misc : NBH14-0013 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:20:16 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:10 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7330.D\ECD1A.CH Vial: 38
 Signal #2 : I:\M\DATA\SM0419\M7330.D\ECD2B.CH
 Acq On : 10-29-2014 08:13:52 PM Operator: RR
 Sample : M8356-P-D(5) Inst : INST. M
 Misc : NBH14-0207 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:42 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2938650	100.00000	ng
10) I C16(161)	23.22	6671910m	100.00000	ng
24) I C15(96) #2	20.52	14948996m	100.00000	ng
33) I C16(161) #2	26.79	36016798	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	432556	15.90589	ng
5) C13(28)	14.19	1363470m	33.54219	ng
6) C14(52)	15.83	1343159	44.61563	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	2375929m	17.32569	ng
28) C13(28) #2	17.76	7916178m	36.55531	ng
29) C14(52) #2	19.15	7288467m	58.83734	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7330.D\ECD1A.CH Vial: 38
 Signal #2 : I:\M\DATA\SM0419\M7330.D\ECD2B.CH
 Acq On : 10-29-2014 08:13:52 PM Operator: RR
 Sample : M8356-P-D(5) Inst : INST. M
 Misc : NBH14-0207 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:42 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:20:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7331.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0419\M7331.D\ECD2B.CH
 Acq On : 10-29-2014 08:58:26 PM Operator: RR
 Sample : M8357-P-D(5) Inst : INST. M
 Misc : NBH14-0211 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:47 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3048346	100.00000	ng
10) I C16(161)	23.21	6679027	100.00000	ng
24) I C15(96) #2	20.52	15083826m	100.00000	ng
33) I C16(161) #2	26.79	36224030m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	423418	20.21290	ng
3) C13(18)	12.13	1070238	46.33658	ng
5) C13(28)	14.19	1477388m	35.19331	ng
6) C14(52)	15.84	2712828	97.24455	ng
7) C14(44)	16.70	816087	17.54298	ng
8) C14(66)	18.64	470404m	7.64480	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	2298282m	21.27309	ng
26) C13(18) #2	14.99	5613598m	49.10640	ng
28) C13(28) #2	17.76	9438439m	43.77720	ng
29) C14(52) #2	19.15	14421644m	124.83199	ng
30) C14(44) #2	19.96	4514081m	19.13978	ng
31) C14(66) #2	22.32	2342307m	7.80041	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7331.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0419\M7331.D\ECD2B.CH
 Acq On : 10-29-2014 08:58:26 PM Operator: RR
 Sample : M8357-P-D(5) Inst : INST. M
 Misc : NBH14-0211 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:47 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7332.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0419\M7332.D\ECD2B.CH
 Acq On : 10-29-2014 09:42:55 PM Operator: RR
 Sample : M8368-P-D(5) Inst : INST. M
 Misc : NBH14-0245 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:52 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2889515	100.00000	ng
10) I C16(161)	23.22	6150244m	100.00000	ng
24) I C15(96) #2	20.52	15093250m	100.00000	ng
33) I C16(161) #2	26.79	35486816	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	324385	15.47054	ng
3) C13(18)	12.13	686391	29.15797	ng
5) C13(28)	14.19	1378029m	34.57420	ng
6) C14(52)	15.83	1360617	46.22182	ng
7) C14(44)	16.70	684433	15.12155	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	1781725m	15.80456	ng
26) C13(18) #2	14.99	3886942m	31.81414	ng
28) C13(28) #2	17.76	8921847m	41.17014	ng
29) C14(52) #2	19.15	7639106m	61.30837	ng
30) C14(44) #2	19.96	3898083m	16.23532	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7332.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0419\M7332.D\ECD2B.CH
 Acq On : 10-29-2014 09:42:55 PM Operator: RR
 Sample : M8368-P-D(5) Inst : INST. M
 Misc : NBH14-0245 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:52 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7333.D\ECD1A.CH Vial: 41
 Signal #2 : I:\M\DATA\SM0419\M7333.D\ECD2B.CH
 Acq On : 29 Oct 2014 10:27 pm Operator: RR
 Sample : M8369-P-D(5) Inst : INST. M
 Misc : NBH14-0249 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:57 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2821161	100.00000	ng
10) I C16(161)	23.21	5961579	100.00000	ng
24) I C15(96) #2	20.52	15506392m	100.00000	ng
33) I C16(161) #2	26.79	36969050	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	736885m	17.56870	ng
6) C14(52)	15.83	737422	22.32053	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	4332510m	18.08600	ng
29) C14(52) #2	19.15	4340679m	31.90202	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7333.D\ECD1A.CH Vial: 41
 Signal #2 : I:\M\DATA\SM0419\M7333.D\ECD2B.CH
 Acq On : 29 Oct 2014 10:27 pm Operator: RR
 Sample : M8369-P-D(5) Inst : INST. M
 Misc : NBH14-0249 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:24:57 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7334.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0419\M7334.D\ECD2B.CH
 Acq On : 29 Oct 2014 11:11 pm Operator: RR
 Sample : M8370-P-D(5) Inst : INST. M
 Misc : NBH14-0253 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:02 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2973108	100.00000	ng
10) I C16(161)	23.21	6464020	100.00000	ng
24) I C15(96) #2	20.52	15005989	100.00000	ng
33) I C16(161) #2	26.79	34778869	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.12	450104	16.51365	ng
5) C13(28)	14.19	801989m	18.23419	ng
6) C14(52)	15.83	1145283	36.33151	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	2419388m	17.65874	ng
28) C13(28) #2	17.76	6035246	27.09686	ng
29) C14(52) #2	19.15	6172294m	48.80353	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7334.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0419\M7334.D\ECD2B.CH
 Acq On : 29 Oct 2014 11:11 pm Operator: RR
 Sample : M8370-P-D(5) Inst : INST. M
 Misc : NBH14-0253 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:02 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:24:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7335.D\ECD1A.CH Vial: 43
 Signal #2 : I:\M\DATA\SM0419\M7335.D\ECD2B.CH
 Acq On : 29 Oct 2014 11:56 pm Operator: RR
 Sample : M8400-P-D(5) Inst : INST. M
 Misc : NBH14-0153 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:07 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3085883	100.00000	ng
10) I C16(161)	23.21	6875052	100.00000	ng
24) I C15(96) #2	20.52	15428932m	100.00000	ng
33) I C16(161) #2	26.79	36527958	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.19	653123m	13.72453	ng
6) C14(52)	15.83	962666	28.00302	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	4178141m	17.45859	ng
29) C14(52) #2	19.15	5039449m	37.85361	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7335.D\ECD1A.CH Vial: 43
 Signal #2 : I:\M\DATA\SM0419\M7335.D\ECD2B.CH
 Acq On : 29 Oct 2014 11:56 pm Operator: RR
 Sample : M8400-P-D(5) Inst : INST. M
 Misc : NBH14-0153 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:07 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7337.D\ECD1A.CH Vial: 45
 Signal #2 : I:\M\DATA\SM0419\M7337.D\ECD2B.CH
 Acq On : 10-30-2014 01:25:38 AM Operator: RR
 Sample : M8401-P-D(5) Inst : INST. M
 Misc : NBH14-0157 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:13 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3115868	100.00000	ng
10) I C16(161)	23.21	6757821m	100.00000	ng
24) I C15(96) #2	20.52	16535400m	100.00000	ng
33) I C16(161) #2	26.79	38967966	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.12	931540	38.37474	ng
5) C13(28)	14.20	1959777m	46.84057	ng
6) C14(52)	15.83	2887793	101.96966	ng
7) C14(44)	16.70	872042	18.49975	ng
8) C14(66)	18.65	589339m	10.01135	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	23.42	742859m	14.96272	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	5248037m	40.78076	ng
28) C13(28) #2	17.76	12920925m	55.61415	ng
29) C14(52) #2	19.15	16289148m	129.20135	ng
30) C14(44) #2	19.96	5172366m	20.10152	ng
31) C14(66) #2	22.32	2917420m	9.15132	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	26.94	4512313	14.88112	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7337.D\ECD1A.CH Vial: 45
 Signal #2 : I:\M\DATA\SM0419\M7337.D\ECD2B.CH
 Acq On : 10-30-2014 01:25:38 AM Operator: RR
 Sample : M8401-P-D(5) Inst : INST. M
 Misc : NBH14-0157 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:13 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7338.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0419\M7338.D\ECD2B.CH
 Acq On : 10-30-2014 02:10:06 AM Operator: RR
 Sample : M8402-P-D(5) Inst : INST. M
 Misc : NBH14-0161 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:18 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3622059	100.00000	ng
10) I C16(161)	23.21	7357294	100.00000	ng
24) I C15(96) #2	20.51	16322694m	100.00000	ng
33) I C16(161) #2	26.79	38141330	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	e	5804282	BelowCal ng
3) C13(18)	12.13	e	8073517	BelowCal ng
5) C13(28)	14.19		8423359m	205.13856 ng
6) C14(52)	15.83	E	13304017	BelowCal ng
7) C14(44)	16.70		5334887	120.51098 ng
8) C14(66)	18.63		914989m	14.34605 ng
9) C15(101)	19.71		1870141	33.40535 ng
12) C15(118)	22.36		1032722m	17.25701 ng
13) C16(153)	23.42		1614783m	31.15976 ng
14) C15(105)	0.00		0d	N.D. ng
15) C16(138)	24.52		1751015	25.56415 ng
16) C17(187)	0.00		0d	N.D. ng
17) C16(128)	0.00		0d	N.D. ng
18) C17(180)	0.00		0d	N.D. ng
19) C17(170)	0.00		0d	N.D. ng
20) C18(195)	0.00		0d	N.D. ng
21) C19(206)	0.00		0d	N.D. ng
22) C110(209)	0.00		0d	N.D. ng
25) C12(8) #2	13.11	e	31938340	501.35299 ng
26) C13(18) #2	14.99	e	42113588	BelowCal ng
28) C13(28) #2	17.76		38841975	190.27244 ng
29) C14(52) #2	19.15	E	70633094	BelowCal ng
30) C14(44) #2	19.96		28635051m	131.21065 ng
31) C14(66) #2	22.33		5295427m	18.66080 ng
32) C15(101) #2	23.45		5641814m	37.37637 ng
35) C15(118) #2	26.33		5003970	18.62911 ng
36) C16(153) #2	26.93		8945264	34.36239 ng
37) C15(105) #2	0.00		0d	N.D. ng
38) C16(138) #2	27.83		6114965m	26.13747 ng
39) C17(187) #2	0.00		0d	N.D. ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7338.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0419\M7338.D\ECD2B.CH
 Acq On : 10-30-2014 02:10:06 AM Operator: RR
 Sample : M8402-P-D(5) Inst : INST. M
 Misc : NBH14-0161 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:18 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7339.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0419\M7339.D\ECD2B.CH
 Acq On : 10-30-2014 02:54:40 AM Operator: RR
 Sample : M8404-P-D(5) Inst : INST. M
 Misc : NBH14-0169 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:25 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3100391	100.00000	ng
10) I C16(161)	23.21	6862649	100.00000	ng
24) I C15(96) #2	20.52	15509030m	100.00000	ng
33) I C16(161) #2	26.79	36256897	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.19	480320m	9.35110	ng
6) C14(52)	15.83	497462	11.13409	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	2500759m	9.51194	ng
29) C14(52) #2	19.15	2426075m	16.43776	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7339.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0419\M7339.D\ECD2B.CH
 Acq On : 10-30-2014 02:54:40 AM Operator: RR
 Sample : M8404-P-D(5) Inst : INST. M
 Misc : NBH14-0169 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:25 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7340.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0419\M7340.D\ECD2B.CH
 Acq On : 10-30-2014 03:39:07 AM Operator: RR
 Sample : M8405-P-D(5) Inst : INST. M
 Misc : NBH14-0173 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:31 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3030324	100.00000	ng
10) I C16(161)	23.21	6863940	100.00000	ng
24) I C15(96) #2	20.52	16042110m	100.00000	ng
33) I C16(161) #2	26.79	38881919m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.19	417313m	8.02998	ng
6) C14(52)	15.83	555104	13.63557	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	2735789m	10.18289	ng
29) C14(52) #2	19.14	2999913m	20.22970	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0419\M7340.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0419\M7340.D\ECD2B.CH
 Acq On : 10-30-2014 03:39:07 AM Operator: RR
 Sample : M8405-P-D(5) Inst : INST. M
 Misc : NBH14-0173 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 30 14:25:31 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Oct 30 14:25:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7365.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0420\M7365.D\ECD2B.CH
 Acq On : 31 Oct 2014 11:34 am Operator: RR
 Sample : M8402-P-D(7) Inst : INST. M
 Misc : NBH14-0161 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 31 15:57:23 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Oct 31 15:57:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2245288	100.00000	ng
10) I C16(161)	23.21	4957816	100.00000	ng
24) I C15(96) #2	20.51	11702570m	100.00000	ng
33) I C16(161) #2	26.79	26308241	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	0.1000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	0.1004	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	0.1000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	0.1004	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	648547	47.76413	ng
3) C13(18)	12.13	914087	55.04644	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	15.83	1394085m	63.95758	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	3408356m	43.92901	ng
26) C13(18) #2	14.99	4823005m	55.25655	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	19.14	7176623m	75.77520	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7365.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0420\M7365.D\ECD2B.CH
 Acq On : 31 Oct 2014 11:34 am Operator: RR
 Sample : M8402-P-D(7) Inst : INST. M
 Misc : NBH14-0161 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 31 15:57:23 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Oct 31 15:57:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7613.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0424\M7613.D\ECD2B.CH
 Acq On : 11-15-2014 04:28:03 PM Operator: RR
 Sample : M8363-P-D(5) Inst : INST. M
 Misc : NBH14-0232 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 17 08:21:59 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 17 08:21:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2862754m	100.00000	ng
10) I C16(161)	23.21	6512860	100.00000	ng
24) I C15(96) #2	20.51	15556028m	100.00000	ng
33) I C16(161) #2	26.79	37851303	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	15.83	575078m	15.59042	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	19.14	2881164m	20.00700	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7613.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0424\M7613.D\ECD2B.CH
 Acq On : 11-15-2014 04:28:03 PM Operator: RR
 Sample : M8363-P-D(5) Inst : INST. M
 Misc : NBH14-0232 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 17 08:21:59 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 17 08:21:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7253.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0418\M7253.D\ECD2B.CH
 Acq On : 10-26-2014 09:43:06 AM Operator: RR
 Sample : CD580PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:35:59 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2558363	100.00000	ng
4) I C15(96) #2	20.52	14176081m	100.00000	ng
Target Compounds				
2) C15(101)	0.00	0d	N.D.	ng
5) C15(101) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7254.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0418\M7254.D\ECD2B.CH
 Acq On : 26 Oct 2014 10:27 am Operator: RR
 Sample : CD581LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:36:04 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:35:58 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.40	2768412	100.00000	ng	
4) I C15(96) #2	20.52	13871209m	100.00000	ng	
Target Compounds					
2) C15(101)	19.74	1091741m	24.42193	ng	65%
5) C15(101) #2	23.23	8713276m	29.69495	ng	79%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7259.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0418\M7259.D\ECD2B.CH
 Acq On : 10-26-2014 02:10:27 PM Operator: RR
 Sample : M8167-P(2) Inst : INST. M
 Misc : NBH14-0065 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:36:23 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:36:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3596020	95.00000	ng
4) I C15(96) #2	20.53	15625241m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1958621	32.80975	ng
5) C15(101) #2	23.24	10089897m	29.00118	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7259.D MM0417F.M Fri Dec 05 16:13:50 2014

Data File : I:\M\DATA\SM0418\M7260.D\ECD1A.CH Vial: 10
 Acq On : 10-26-2014 02:55:00 PM Operator: RR
 Sample : M8167DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0065 5-128 14-049 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7260.D\ECD2B.CH Vial: 10
 Acq On : 10-26-2014 02:54:59 PM Operator: RR
 Sample : M8167DUP-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e
 Quant Time: Dec 05 15:36:28 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:36:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3374379	95.00000	ng
4) I C15(96) #2	20.52	17007082m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1715028	30.47553	ng
5) C15(101) #2	23.24	10307190m	27.21856	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7266.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0418\M7266.D\ECD2B.CH
 Acq On : 10-26-2014 07:22:23 PM Operator: RR
 Sample : M8362-P(2) Inst : INST. M
 Misc : NBH14-0228 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:36:50 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:36:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2960462m	95.00000	ng
4) I C15(96) #2	20.53	12375657	95.00000	ng
Target Compounds				
2) C15(101)	19.73	10579141	243.91661	ng
5) C15(101) #2	23.24	50764233m	250.13210	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7271.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0418\M7271.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:04 pm Operator: RR
 Sample : M8387-P(2) Inst : INST. M
 Misc : NBH14-0101 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:37:10 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3096478	95.00000	ng
4) I C15(96) #2	20.52	14299959m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	482148	8.08461	ng
5) C15(101) #2	23.23	2204458m	7.49012	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7272.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0418\M7272.D\ECD2B.CH
 Acq On : 26 Oct 2014 11:49 pm Operator: RR
 Sample : M8387MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0101 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:37:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2881746	100.00000	ng
4) I C15(96) #2	20.52	13714712m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	1911209m	42.56604	ng
5) C15(101) #2	23.23	13535792m	47.04471	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7272.D MM0417F.M Fri Dec 05 16:13:59 2014

Signal #1 : I:\M\DATA\SM0418\M7273.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0418\M7273.D\ECD2B.CH
 Acq On : 27 Oct 2014 12:34 am Operator: RR
 Sample : M8387MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0101 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:37:19 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:13 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3284342m	100.00000	ng
4) I C15(96) #2	20.52	13812909m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	2129909m	41.56732	ng
5) C15(101) #2	23.23	13448412m	46.38524	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7274F.D\ECD1A.CH Vial: 48
 Acq On : 10-27-2014 05:47:48 AM Operator: RR
 Sample : M8400-P-D(4) Inst : INST. M
 Misc : NBH14-0153 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274F.D\ECD2B.CH Vial: 48
 Acq On : 10-27-2014 05:47:47 AM Operator: RR
 Sample : M8400-P-D(4) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e
 Quant Time: Dec 05 15:37:44 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3575964	95.00000	ng
4) I C15(96) #2	20.52	16725519	95.00000	ng
Target Compounds				
2) C15(101)	19.72	4568162	80.68919	ng
5) C15(101) #2	23.23	27241077m	76.24587	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0418\M7274G.D\ECD1A.CH Vial: 49
 Acq On : 10-27-2014 06:32:31 AM Operator: RR
 Sample : M8401-P-D(4) Inst : INST. M
 Misc : NBH14-0157 5-128 14-0493 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0418\M7274G.D\ECD2B.CH Vial: 49
 Acq On : 10-27-2014 06:32:32 AM Operator: RR
 Sample : M8401-P-D(4) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Dec 05 15:37:49 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3061896m	95.00000	ng
4) I C15(96) #2	20.52	17016023m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	10022778	221.25406	ng
5) C15(101) #2	23.23	56638407m	180.56721	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274I.D\ECD1A.CH Vial: 51
 Signal #2 : I:\M\DATA\SM0418\M7274I.D\ECD2B.CH
 Acq On : 10-27-2014 08:02:03 AM Operator: RR
 Sample : M8404-P-D(4) Inst : INST. M
 Misc : NBH14-0169 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:37:56 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3564547	95.00000	ng
4) I C15(96) #2	20.52	16416173m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	4081198m	71.89879	ng
5) C15(101) #2	23.23	22533918m	63.30423	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7274J.D\ECD1A.CH Vial: 52
 Signal #2 : I:\M\DATA\SM0418\M7274J.D\ECD2B.CH
 Acq On : 10-27-2014 08:46:39 AM Operator: RR
 Sample : M8405-P-D(4) Inst : INST. M
 Misc : NBH14-0173 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:01 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3234848	95.00000	ng
4) I C15(96) #2	20.52	15400055	95.00000	ng
Target Compounds				
2) C15(101)	19.71	3674441m	71.30076	ng
5) C15(101) #2	23.23	20559725m	61.44403	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7275.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0418\M7275.D\ECD2B.CH
 Acq On : 27 Oct 2014 10:15 am Operator: RR
 Sample : M8152-P-D(4) Inst : INST. M
 Misc : NBH14-0001 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:05 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:37:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3406914	95.00000	ng
4) I C15(96) #2	20.52	15026665	95.00000	ng
Target Compounds				
2) C15(101)	19.71	4135493	76.46230	ng
5) C15(101) #2	23.23	19547334m	59.76190	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7276.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0418\M7276.D\ECD2B.CH
 Acq On : 27 Oct 2014 11:00 am Operator: RR
 Sample : M8153-P-D(4) Inst : INST. M
 Misc : NBH14-0005 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:08 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3482089	95.00000	ng
4) I C15(96) #2	20.52	15771960m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	5756299	105.94153	ng
5) C15(101) #2	23.23	31343955m	95.28765	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7277.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0418\M7277.D\ECD2B.CH
 Acq On : 27 Oct 2014 11:44 am Operator: RR
 Sample : M8154-P-D(4) Inst : INST. M
 Misc : NBH14-0009 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:12 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3506862	95.00000	ng
4) I C15(96) #2	20.52	14149338m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	6776515m	125.04715	ng
5) C15(101) #2	23.23	32225457m	111.60950	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7278.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0418\M7278.D\ECD2B.CH
 Acq On : 27 Oct 2014 12:29 pm Operator: RR
 Sample : M8155-P-D(4) Inst : INST. M
 Misc : NBH14-0013 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:17 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3113555	95.00000	ng
4) I C15(96) #2	20.52	14629868m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	8368636	178.28075	ng
5) C15(101) #2	23.23	45368678m	163.94604	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7278.D MM0417F.M Fri Dec 05 16:14:18 2014

Signal #1 : I:\M\DATA\SM0418\M7281.D\ECD1A.CH Vial: 31
 Signal #2 : I:\M\DATA\SM0418\M7281.D\ECD2B.CH
 Acq On : 10-27-2014 02:43:03 PM Operator: RR
 Sample : M8356-P-D(4) Inst : INST. M
 Misc : NBH14-0207 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:28 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3540995m	95.00000	ng
4) I C15(96) #2	20.52	14451610m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	7419882	136.34184	ng
5) C15(101) #2	23.23	34565778m	118.29593	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7282.D\ECD1A.CH Vial: 32
 Signal #2 : I:\M\DATA\SM0418\M7282.D\ECD2B.CH
 Acq On : 10-27-2014 03:27:38 PM Operator: RR
 Sample : M8357-P-D(4) Inst : INST. M
 Misc : NBH14-0211 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:32 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3728203m	95.00000	ng
4) I C15(96) #2	20.52	16127020m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	7425660	129.14912	ng
5) C15(101) #2	23.23	38556481m	118.23505	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7283.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0418\M7283.D\ECD2B.CH
 Acq On : 10-27-2014 04:12:07 PM Operator: RR
 Sample : M8360-P-D(4) Inst : INST. M
 Misc : NBH14-0220 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:36 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3458013	95.00000	ng
4) I C15(96) #2	20.52	15128658	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3398893	61.23130	ng
5) C15(101) #2	23.23	17070202m	51.39986	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7284.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0418\M7284.D\ECD2B.CH
 Acq On : 10-27-2014 04:56:42 PM Operator: RR
 Sample : M8361-P-D(4) Inst : INST. M
 Misc : NBH14-0224 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:41 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:35 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2992240	95.00000	ng
4) I C15(96) #2	20.52	15236400m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	487773	8.54475	ng
5) C15(101) #2	23.23	2705936m	8.48906	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7287.D\ECD1A.CH Vial: 37
 Signal #2 : I:\M\DATA\SM0418\M7287.D\ECD2B.CH
 Acq On : 10-27-2014 07:10:12 PM Operator: RR
 Sample : M8363-P-D(4) Inst : INST. M
 Misc : NBH14-0232 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:49 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3086995	95.00000	ng
4) I C15(96) #2	20.52	15668119m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	3740610	76.32156	ng
5) C15(101) #2	23.23	20984699m	61.65525	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0418\M7288.D\ECD1A.CH Vial: 38
 Signal #2 : I:\M\DATA\SM0418\M7288.D\ECD2B.CH
 Acq On : 10-27-2014 07:54:44 PM Operator: RR
 Sample : M8368-P-D(4) Inst : INST. M
 Misc : NBH14-0245 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:52 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3435517	95.00000	ng
4) I C15(96) #2	20.52	15574293m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	9146418	176.44520	ng
5) C15(101) #2	23.23	51945434m	181.08325	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7288.D MM0417F.M Fri Dec 05 16:14:32 2014

Signal #1 : I:\M\DATA\SM0418\M7289.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0418\M7289.D\ECD2B.CH
 Acq On : 10-27-2014 08:39:10 PM Operator: RR
 Sample : M8369-P-D(4) Inst : INST. M
 Misc : NBH14-0249 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:38:56 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3486398	95.00000	ng
4) I C15(96) #2	20.52	14870318m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	4576450	83.03390	ng
5) C15(101) #2	23.23	23944207m	75.29302	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7289.D MM0417F.M Fri Dec 05 16:14:34 2014

Signal #1 : I:\M\DATA\SM0418\M7290.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0418\M7290.D\ECD2B.CH
 Acq On : 10-27-2014 09:23:42 PM Operator: RR
 Sample : M8370-P-D(4) Inst : INST. M
 Misc : NBH14-0253 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:39:01 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:38:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3611020	95.00000	ng
4) I C15(96) #2	20.52	15106152m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	5432419	95.88415	ng
5) C15(101) #2	23.23	26947021m	84.34310	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7365.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0420\M7365.D\ECD2B.CH
 Acq On : 31 Oct 2014 11:34 am Operator: RR
 Sample : M8402-P-D(7) Inst : INST. M
 Misc : NBH14-0161 5-128 14-0493 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:00:01 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:59:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2245288	100.00000	ng
4) I C15(96) #2	20.51	11672286m	100.00000	ng
Target Compounds				
2) C15(101)	19.71	200632m	4.11763	ng
5) C15(101) #2	23.21	1015077m	4.88448	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

USACE/NAE - New Bedford Harbor LTM Study

Project No 100053747

Pesticide / PCB by GC/ECD

SED

Batch 14-0494

Package DP-14-0676

Submitted to:

USACE/NAE

696 Virginia Road

Concord, MA 01742 USA

Submitted by:

Battelle Norwell Operations

141 Longwater Drive Suite 202

Norwell, MA 02061

Battelle


The Business of Innovation


USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED


Batch 14-0494
Package DP-14-0676

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061






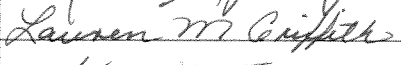




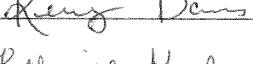
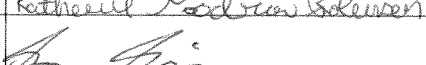

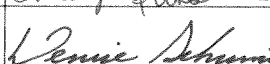












Analyst Approval:  Rich Restucci
2014.11.20 08:49:39 -05'00'

QC Chemist Approval:  Carla Devine
2014.12.10 10:32:47 -05'00'

Project Manager Approval:  Carole McCarthy
2014.12.11 07:40:23 -05'00'

Battelle
The Business of Innovation

2014 Signature Page

Name (print)	Name (signature)	Initials
Matt Schumitz		MNS
Ellyn M Webb		EMW
Carla Devine		CRD
Roxanne M. Brackett		RMB
Robert Lizotte, Jr.		BL
Lauren M Griffith		LMG
Kevin M. McInerney		KMC
Michael McGee		
Rich Restucci		RR
Stephanie Hart		SAH
Kerry Davis		KPD
Katherine Goodrow Robinson		KGR
Sam Guimaraes		SAG
Emily Fraser		EF
Denise Schumitz		DAS
Jonathan Thorn		JRT
Christie Usher		CU
Caitlyn Farragher		CNF
Mart J. Benotti		
William H Brown		WB
Dawn Trapp		DBT
Carolee S. Lynn McLain		CSM
Weidong Li		W.L
Jeannine Seyfert		JS
FRANCO PALA		FP

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED
Batch 14-0494
Package DP-14-0676

1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	23
3	<i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	34
4	<i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	49
5	<i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	80
6	<i>Analytical Data</i> Raw Data Quantification Reports.	143
7	<i>Chromatograms</i> Sample And Standard Chromatograms.	N/A
8	<i>Unused Data</i>	N/A

WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: USACE-NAE New Bedford Harbor LTM MDL Study
Project Number: 100053747
Client: USACE/NAE
696 Virginia Road
Concord, MA 01742
USA
Client Contact Information: Peter Hugh
Engineering Technical Lead
(978) 318-8452(V)
NA
NA
Effective Date of QAPP: 10/9/2014
Version Number: 100053747(S)-02
Project Manager: Peven-McCarthy, Carole
Laboratory Task Manager: Peven-McCarthy, Carole
Deliverable Due Date: 11/3/2014

2.0 SCOPE OF WORK

Overview: A project-specific MDL study is required for this project.
Matrix: Soil/Sediment

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions: Store frozen.
Sub_Sampling: None
Procedures: NA
Contact: NA
Comment: NA
Archiving: NA
Disposal: NA

WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

NA

Samples Expected:	Samples Per Batch:	Batches Expected:
	20	

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

Type:	Description:	Count:	Rgt:	Reference:	Comment:
PB	Laboratory control reagent blank.	1 per batch	--	NA	
LCS	Laboratory Control Sample	1 per batch	No	NA	
MDL	Method Detection Limits	8 per batch	Yes	140304-02: Mud Dump Reference N4415 Lot:N4415	

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev:	5-192-14
SOP Title:	<i>Soil/Sediment Extraction for Trace Level Semi-Volatile Organic Contaminant Analysis</i>
Sample Size:	10 g
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	NA
Comments:	NA

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB Surrogate	ID59 SIS	~ 100 ng	100 uL	NA
ECD LCS/MS Solution	HX10 LCS/MS	~ 38 - 150 ng	75 uL	LCS
PDL spike ECD	ID73 LCS/MS	~ 7.5 - 30.0 ng	150 uL	MDL samples

2.1.3.2 Cleanup

WORK/QUALITY ASSURANCE PROJECT PLAN

- | | | |
|----|--------------|---|
| 1) | SOP No.-Rev: | 5-328-04 |
| | SOP Title: | <i>Removal (cleanup) of Sulfur from Environmental Sample Extracts</i> |
| | Deviations: | NA |
| | Comments: | NA |
| 2) | SOP No.-Rev: | 5-327-04 |
| | SOP Title: | <i>Florisil Cleanup of Environmental Sample Extracts</i> |
| | Deviations: | Elute with Hexane only |
| | Comments: | NA |

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB IS	IE11 RIS	~ 100 ng	100 uL	NA

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

- | | | |
|----|-------------|---|
| 1) | SOP_No-Rev: | 5-128-13 |
| | SOP_Title: | <i>Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection</i> |
| | Deviations: | NA |
| | Comments: | Report SIS corrected data |

2.2. DELIVERABLES

Deliverables Due:	11/3/2014
LIMS Reports:	<i>Yes</i>
Histograms:	<i>No</i>
Excel Tables:	<i>Yes</i>
EICs:	<i>No</i>
Chromatograms:	<i>No</i>

WORK/QUALITY ASSURANCE PROJECT PLAN

EDDs: *Yes*

Comments:

Required 30 day TAT.

EDD required.

Full data package (pdf) required for external validation.

Detailed quant reports are not required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

Staff Member	Role	Comment
Carole S. Peven-McCarthy	Project Manager	NA
Samuel A. Guimaraes	Sample Preparation	NA
Richard P. Restucci Jr	GC/ECD Analysis	NA
Matt D. Schumitz	Sample Custody	NA
Carla R. Devine	Quality Control Officer	NA

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	10/03/2014	NA	0	NA
Sample Preparation	10/06/2014	10/09/2014	3	NA
Instrument Analysis	10/09/2014	10/24/2014	15	NA

WORK/QUALITY ASSURANCE PROJECT PLAN

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Quality Control Review	10/27/2014	10/29/2014	2	NA
Final Data Reporting	10/29/2014	10/31/2014	2	NA

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

Labor Activity:	Hours/ Batch:	Batches:	Total Hours:	Comment:
Sample Receipt	1	1	1	NA
Sample Preparation	24	1	24	NA
<i>Extraction</i>	20			
<i>glassware</i>	4			
Instrument Analysis	16	1	16	NA
<i>GC/ECD</i>	16			
Quality Control Review	3	1	3	NA
Final Data Reporting	1	1	1	NA

7.0 STAFF DEVELOPMENT

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name:	Master_128
SOP Reference:	5-128 - Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection
Description:	Pesticide / PCB by GC/ECD
Matrix:	S - Solid Samples, like soil or sediment, prepared and analyzed under the same class of detection limits.
Detection Limit Study:	5-128-2013-ssMDL-SF
Instrument:	ECD
MQO Criteria	USACE/NBH LTMP
Standard Report:	Standard Result Report

Method Specific Reporting		Holding Times (days)		Data Flags
Result Units:	ng/g	Unit Conversion:	(none)	Sample: 14 DL_Flag: U
Weight Basis:	DRY	Result Format:	Significant Figure	Frozen: 365 RL_Flag: J
Standard Basis:	SIS	# of Figures/Digits:	3	Extract: 40 PB_Flag: B
Oil Weight Basis:	No	Oil Weight Source:	Oil Weight	DIL_Flag: D
U-Value Substitution:	U-Flag=NED	Histograms:	No	HT_Flag: T
ECD_Reporting:	Yes			
ECD_Result:	Higher	ECD_Flag	p	
RPD_Limit (<%):	40	ECD_Manual_Flag:	m	

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Cl2(8)	Cl2(8)	T	Cl5(96)	Cl3(34)	No	No
2	Cl3(18)	Cl3(18)	T	Cl5(96)	Cl3(34)	No	No
3	Cl3(28)	Cl3(28)	T	Cl5(96)	Cl3(34)	No	No
4	Cl4(44)	Cl4(44)	T	Cl5(96)	Cl3(34)	No	No
5	Cl4(52)	Cl4(52)	T	Cl5(96)	Cl3(34)	No	No
6	Cl4(66)	Cl4(66)	T	Cl5(96)	Cl3(34)	No	No
7	Cl5(101)	Cl5(101)	T	Cl5(96)	Cl3(34)	No	No
8	Cl5(105)	Cl5(105)	T	Cl6(161)	Cl6(152)	No	No
9	Cl5(118)	Cl5(118)	T	Cl6(161)	Cl6(152)	No	No
10	Cl6(128)	Cl6(128)	T	Cl6(161)	Cl6(152)	No	No
11	Cl6(138)	Cl6(138)	T	Cl6(161)	Cl6(152)	No	No
12	Cl6(153)	Cl6(153)	T	Cl6(161)	Cl6(152)	No	No
13	Cl7(170)	Cl7(170)	T	Cl6(161)	Cl6(152)	No	No
14	Cl7(180)	Cl7(180)	T	Cl6(161)	Cl6(152)	No	No
15	Cl7(187)	Cl7(187)	T	Cl6(161)	Cl6(152)	No	No
16	Cl8(195)	Cl8(195)	T	Cl6(161)	Cl6(152)	No	No

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
17	CI9(206)	CI9(206)	T	CI6(161)	CI6(152)	No	No
18	CI10(209)	CI10(209)	T	CI6(161)	CI6(152)	No	No
1	CI3(34)	CI3(34)	SIS	CI5(96)		No	No
2	CI6(152)	CI6(152)	SIS	CI6(161)		No	No
Total Analytes:		20					

Subtract Peaks:

None

Sum Peaks:

None

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

ICAL Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Continuing Calibration Verification Criteria:

CCV Name: 5-128

Frequency Hrs:	Mean PD(%):	Individual PD(%):	RIS/SIS RT Window (min):	Area Limit Low(%):	Area Limit High(%):	Comment:
24 (N)	15 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Independent Calibration Verification:

ICC Name: 5-128

Mean PD Limit(%):	Ind. PD Limit(%):	RIS/SIS Window Limit (Secs):	Area Limit High(%):	Area Limit Low(%):	Comment:
20 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Mass Discrimination Criteria:

None

Degradation Check Criteria:

Degradation Check Name: 5-128

DDT Breakdown Limit (%):	Endrin Breakdown Limit(%):	Total Breakdown Limit(%):	Comment:
20 (N)	20 (N)	20 (N)	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	USACE/NBH LTMP		
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Procedural Blank	Samples must be greater than five times the blank concentration (>5xPB).	B	Review with Project Manager; re-analyze or justify results in project records.
PB Measurement Quality Objective	Organic results in the Procedural Blank are less than the ssRL (<ssRL)	N	
Laboratory Control Sample	Recovery values 70-130%.	N	Review with project manager; re-analyze or justify reporting the results in project records.
Matrix Spike Recovery	Organics 70-130%. Analyte concentration in MS must be >5 times reported background concentration. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Matrix Spike/Spike Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Spike must be >5x background concentration. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Standard Reference Material Accuracy	Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit (>5xMDL). Organics Results in the Target is less than 5 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Concentration must be >10X the MDL. Organics Results in the Original is less than 10 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Concentration must be >10X the MDL. Organics Results in the Original is less than 10 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Surrogate Compound Recovery	Recovery results between 40% and 120%.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Control Oil	RPD < 30% for at least 90% of analytes	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Instrument Calibration	5-128-13: R-squared greater than or equal to 0.995 Mean RSD less than or equal to 15%, Individual RSD less than or equal to 25%	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Independent Calibration Check Solution	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 20%.	N	Review with Project Manager; re-analyze or justify in project records.
Continuing Calibration Verification	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 15%.	N	

Sample Receipt Form

Approved: Authorized:

Project Number: _____ Client: _____
 Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM
 No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA
 COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler		None	Intact	Intact	1.0	23

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
 Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0117 (NA) BDO IDs Assigned: M8152 - M8174

Samples logged in by: Schumitz, Matt Date/Time: 09/26/2014 12:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8152	NBH14-0001	09/22/14 15:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8153	NBH14-0005	09/22/14 14:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8154	NBH14-0009	09/22/14 11:16	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8155	NBH14-0013	09/22/14 12:08	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8156	NBH14-0017	09/22/14 8:13	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8157	NBH14-0021	09/22/14 11:38	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8158	NBH14-0025	09/22/14 9:37	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8159	NBH14-0029	09/22/14 10:40	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8160	NBH14-0033	09/22/14 15:25	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8161	NBH14-0037	09/22/14 14:03	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8162	NBH14-0041	09/22/14 13:06	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8163	NBH14-0045	09/23/14 15:43	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8164	NBH14-0049	09/23/14 14:57	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8165	NBH14-0053	09/23/14 13:53	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8166	NBH14-0061	09/23/14 10:12	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8167	NBH14-0065	09/23/14 9:09	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8168	NBH14-0073	09/23/14 14:27	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8169	NBH14-0077	09/23/14 13:39	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8170	NBH14-0081	09/23/14 12:26	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8171	NBH14-0085	09/23/14 11:29	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8172	NBH14-0089	09/23/14 10:32	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8173	NBH14-0093	09/23/14 9:53	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8174	NBH14-0097	09/23/14 8:57	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	

Total Samples: 23



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-330

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:24	NBH14-0001	M8152	SED	120-14LTM	1	X						
9/22/2014	14:24	NBH14-0005	M8153	SED	125-14LTM	1	X						
9/22/2014	11:16	NBH14-0009	M8154	SED	130-14LTM	1	X						
9/22/2014	12:08	NBH14-0013	M8155	SED	134-14LTM	1	X						
9/22/2014	8:13	NBH14-0017	M8156	SED	150-14LTM	1	X						
9/22/2014	11:38	NBH14-0021	M8157	SED	253-14LTM	1	X						
9/22/2014	9:37	NBH14-0025	M8158	SED	216-14LTM	1	X						
9/22/2014	10:40	NBH14-0029	M8159	SED	220-14LTM	1	X						
9/22/2014	15:25	NBH14-0033	M8160	SED	235-14LTM	1	X						
9/22/2014	14:03	NBH14-0037	M8161	SED	240-14LTM	1	X						
9/22/2014	13:06	NBH14-0041	M8162	SED	245-14LTM	1	X						
9/23/2014	15:43	NBH14-0045	M8163	SED	146-14LTM	1	X						
9/23/2014	14:57	NBH14-0049	M8164	SED	140-14LTM	1	X						
9/23/2014	13:53	NBH14-0053	M8165	SED	202-14LTM	1	X						
9/23/2014	10:12	NBH14-0061	M8166	SED	147-14LTM	1	X						
9/23/2014	9:09	NBH14-0065	M8167	SED	135-14LTM	1	X						
9/23/2014	14:27	NBH14-0073	M8168	SED	333-14LTM	1	X						
9/23/2014	13:39	NBH14-0077	M8169	SED	339-14LTM	1	X						
9/23/2014	12:26	NBH14-0081	M8170	SED	346-14LTM	1	X						
9/23/2014	11:29	NBH14-0085	M8171	SED	340-14LTM	1	X						

Relinquished By (name/date/time):

J M Tenzar 9/26/14 9:15

Received By(name/date/time):

MW 9/26/14 9:15



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532


Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061


Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-331

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	10:32	NBH14-0089	M8172	SED	341-14LTM	1	X						
9/23/2014	9:53	NBH14-0093	M8173	SED	334-14LTM	1	X						
9/23/2014	8:57	NBH14-0097	M8174	SED	335-14LTM	1	X						

Relinquished By (name/date/time):
 9/26/14 9:15

Received By(name/date/time):
 9/26/14

Sample Receipt Form

Approved: Authorized

Project Number: 100043429 Client: USACE
Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM
No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA
COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler	NA	Custody Seals	Intact	Intact	1.2	60

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.2 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0113 (NA) BDO IDs Assigned: M8347 - M8406
Samples logged in by: Schumitz, Matt Date/Time: 10/01/2014 12:00 AM
Approved By: Devine, Carla Approved On: 12/5/2014 9:32:00 AM
Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8347	NBH14-0057	09/30/14 10:09	10/02/14 10:08	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8348	NBH14-0069	09/30/14 10:25	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8349	NBH14-0181	09/26/14 8:36	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8350	NBH14-0185	09/26/14 9:50	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8351	NBH14-0189	09/26/14 11:00	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8352	NBH14-0193	09/26/14 12:49	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8353	NBH14-0197	09/26/14 13:38	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8354	NBH14-0199	09/26/14 14:24	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8355	NBH14-0203	09/26/14 15:17	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8356	NBH14-0207	09/26/14 14:32	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8357	NBH14-0211	09/26/14 13:36	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8358	NBH14-0215	09/26/14 8:21	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8359	NBH14-0219	09/26/14 8:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8360	NBH14-0220	09/26/14 9:24	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8361	NBH14-0224	09/26/14 10:54	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8362	NBH14-0228	09/26/14 11:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8363	NBH14-0232	09/25/14 14:16	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8364	NBH14-0233	09/26/14 8:56	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8365	NBH14-0234	09/24/14 14:40	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8366	NBH14-0237	09/29/14 15:14	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8367	NBH14-0241	09/29/14 15:54	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8368	NBH14-0245	09/29/14 8:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8369	NBH14-0249	09/29/14 9:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8370	NBH14-0253	09/29/14 10:01	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8371	NBH14-0257	09/29/14 12:47	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8372	NBH14-0261	09/29/14 14:39	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8373	NBH14-0265	09/29/14 15:26	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8374	NBH14-0269	09/29/14 8:13	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8375	NBH14-0273	09/29/14 9:08	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8376	NBH14-0277	09/29/14 9:52	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8377	NBH14-0281	09/29/14 10:45	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8378	NBH14-0285	09/29/14 11:15	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8379	NBH14-0289	09/29/14 12:27	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8380	NBH14-0302	09/30/14 8:00	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8381	NBH14-0306	09/30/14 9:02	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8382	NBH14-0310	09/30/14 9:59	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8383	NBH14-0314	09/30/14 11:47	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8384	NBH14-0318	09/30/14 12:41	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8385	NBH14-0322	09/30/14 13:44	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8386	NBH14-0326	09/30/14 14:36	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8387	NBH14-0101	09/24/14 10:17	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8388	NBH14-0105	09/24/14 9:18	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8389	NBH14-0109	09/24/14 10:56	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8390	NBH14-0113	09/24/14 12:10	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8391	NBH14-0117	09/24/14 13:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8392	NBH14-0121	09/24/14 14:24	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8393	NBH14-0125	09/25/14 8:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8394	NBH14-0129	09/25/14 9:49	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8395	NBH14-0133	09/25/14 11:00	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8396	NBH14-0137	09/25/14 11:32	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8397	NBH14-0141	09/25/14 12:58	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8398	NBH14-0145	09/25/14 14:03	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8399	NBH14-0149	09/25/14 14:56	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8400	NBH14-0153	09/25/14 8:19	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8401	NBH14-0157	09/25/14 9:06	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8402	NBH14-0161	09/25/14 9:55	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8403	NBH14-0165	09/25/14 12:58	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8404	NBH14-0169	09/25/14 14:11	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8405	NBH14-0173	09/25/14 15:14	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8406	NBH14-0177	09/26/14 7:39	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Total Samples: 60



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar

Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057	M0347	SED	151-14LTM	1	X						
9/30/2014	10:25	NBH14-0069	" " 48	SED	155-14LTM	1	X						
9/26/2014	8:36	NBH14-0181	49	SED	242-14LTM	1	X						
9/26/2014	9:50	NBH14-0185	50	SED	241-14LTM	1	X						
9/26/2014	11:00	NBH14-0189	51	SED	237-14LTM	1	X						
9/26/2014	12:49	NBH14-0193	52	SED	236-14LTM	1	X						
9/26/2014	13:38	NBH14-0197	53	SED	231-14LTM	1	X						
9/26/2014	14:24	NBH14-0199	54	SED	230-14LTM	1	X						
9/26/2014	15:17	NBH14-0203	55	SED	117-14LTM	1	X						
9/26/2014	14:32	NBH14-0207	56	SED	114-14LTM	1	X						
9/26/2014	13:36	NBH14-0211	57	SED	111-14LTM	1	X						
9/26/2014	8:21	NBH14-0215	58	SED	152-14LTM	1	X						
9/26/2014	8:50	NBH14-0219	59	SED	152-14LTM	1	X						
9/26/2014	9:24	NBH14-0220	60	SED	138-14LTM	1	X						
9/26/2014	10:54	NBH14-0224	61	SED	126-14LTM	1	X						
9/26/2014	11:50	NBH14-0228	62	SED	108-14LTM	1	X						
9/25/2014	14:16	NBH14-0232	63	SED	139-14LTM	1	X						
9/26/2014	8:56	NBH14-0233	64	SED	242-14LTM	1	X						
9/24/2014	14:40	NBH14-0234	65	SED	306-14LTM	1	X						
9/29/2014	15:14	NBH14-0237	66	SED	222-14LTM	1	X						

Relinquished By (name/date/time):

Matthew R. Dyf 10/1/14 1700

Received By(name/date/time):

MS 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:54	NBH14-0241	M8367	SED	224-14LTM	1	X						
9/29/2014	8:06	NBH14-0245	68	SED	128-14LTM	1	X						
9/29/2014	9:06	NBH14-0249	69	SED	123-14LTM	1	X						
9/29/2014	10:01	NBH14-0253	70	SED	121-14LTM	1	X						
9/29/2014	12:47	NBH14-0257	71	SED	218-14LTM	1	X						
9/29/2014	14:39	NBH14-0261	72	SED	208-14LTM	1	X						
9/29/2014	15:26	NBH14-0265	73	SED	207-14LTM	1	X						
9/29/2014	8:13	NBH14-0269	74	SED	332-14LTM	1	X						
9/29/2014	9:08	NBH14-0273	75	SED	338-14LTM	1	X						
9/29/2014	9:52	NBH14-0277	76	SED	331-14LTM	1	X						
9/29/2014	10:45	NBH14-0281	77	SED	323-14LTM	1	X						
9/29/2014	11:15	NBH14-0285	78	SED	324-14LTM	1	X						
9/29/2014	12:27	NBH14-0289	79	SED	325-14LTM	1	X						
9/30/2014	8:00	NBH14-0302	80	SED	225-14LTM	1	X						
9/30/2104	9:02	NBH14-0306	81	SED	226-14LTM	1	X						
9/30/2014	9:59	NBH14-0310	82	SED	227-14LTM	1	X						
9/30/2014	11:47	NBH14-0314	83	SED	217-14LTM	1	X						
9/30/2014	12:41	NBH14-0318	84	SED	212-14LTM	1	X						
9/30/2014	13:44	NBH14-0322	85	SED	211-14LTM	1	X						
9/30/2014	14:36	NBH14-0326	86	SED	204-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700

1537



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101	M8387	SED	349-14LTM	1	X						
9/24/2014	9:18	NBH14-0105	" " 88	SED	352-14LTM	1	X						
9/24/2014	10:56	NBH14-0109	89	SED	345-14LTM	1	X						
9/24/2014	12:10	NBH14-0113	90	SED	318-14LTM	1	X						
9/24/2014	13:15	NBH14-0117	91	SED	311-14LTM	1	X						
9/24/2014	14:24	NBH14-0121	92	SED	306-14LTM	1	X						
9/25/2014	8:15	NBH14-0125	93	SED	221-14LTM	1	X						
9/25/2014	9:49	NBH14-0129	94	SED	249-14LTM	1	X						
9/25/2014	11:00	NBH14-0133	95	SED	317-14LTM	1	X						
9/25/2014	11:32	NBH14-0137	96	SED	309-14LTM	1	X						
9/25/2014	12:58	NBH14-0141	97	SED	310-14LTM	1	X						
9/25/2014	14:03	NBH14-0145	98	SED	304-14LTM	1	X						
9/25/2014	14:56	NBH14-0149	99	SED	250-14LTM	1	X						
9/25/2014	8:19	NBH14-0153	M8400	SED	105-14LTM	1	X						
9/25/2014	9:06	NBH14-0157	" " 01	SED	109-14LTM	1	X						
9/25/2014	9:55	NBH14-0161	02	SED	115-14LTM	1	X						
9/25/2014	12:58	NBH14-0165	03	SED	154-14LTM	1	X						
9/25/2014	14:11	NBH14-0169	04	SED	139-14LTM	1	X						
9/25/2014	15:14	NBH14-0173	05	SED	131-14LTM	1	X						
9/26/2014	7:39	NBH14-0177	06	SED	247-14LTM	1	X						

Relinquished By (name/date/time):

Matt K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID Procedural Blank

Battelle ID CD582PB-P
Sample Type PB
Collection Date 10/27/2014
Extraction Date 10/27/2014
Analysis Date 10/31/2014
Analytical Instrument ECD
% Moisture 4.16
% Lipid NA
Matrix SEDIMENT
Sample Size 9.60
Size Unit-Basis G_DRY
Units NG/G_DRY

Cl2(8)	0.250 U
Cl3(18)	0.251 U
Cl3(28)	0.251 U
Cl4(44)	0.251 U
Cl4(52)	0.250 U
Cl4(66)	0.250 U
Cl5(101)	0.250 U
Cl5(105)	0.251 U
Cl5(118)	0.251 U
Cl6(128)	0.251 U
Cl6(138)	0.251 U
Cl6(153)	0.251 U
Cl7(170)	0.251 U
Cl7(180)	0.251 U
Cl7(187)	0.251 U
Cl8(195)	0.251 U
Cl9(206)	0.250 U
Cl10(209)	0.251 U

Surrogate Recoveries (%)

Cl3(34)	88
Cl6(152)	92

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Laboratory Control Sample
Battelle ID	CD583LCS-P
Sample Type	LCS
Collection Date	10/27/2014
Extraction Date	10/27/2014
Analysis Date	10/31/2014
Analytical Instrument	ECD
% Moisture	4.16
% Lipid	NA
Matrix	SEDIMENT
Sample Size	9.56
Size Unit-Basis	G_DRY
Units	NG/G_DRY

		Target	% REC	Qual
Cl2(8)	3.77	3.92	96	
Cl3(18)	3.79	3.92	97	
Cl3(28)	3.66	3.92	93	
Cl4(44)	3.95	3.92	101	
Cl4(52)	3.74	3.92	95	
Cl4(66)	3.91	3.92	100	
Cl5(101)	3.57	3.92	91	
Cl5(105)	3.94	3.92	101	
Cl5(118)	4.18	3.92	107	
Cl6(128)	4.01	3.92	102	
Cl6(138)	4.23	3.92	108	
Cl6(153)	3.75	3.92	96	
Cl7(170)	3.89	3.92	99	
Cl7(180)	3.93	3.92	100	
Cl7(187)	4.04	3.92	103	
Cl8(195)	4.00	3.92	102	
Cl9(206)	3.92	3.92	100	
Cl10(209)	4.18	3.92	107	

Surrogate Recoveries (%)

Cl3(34)	86
Cl6(152)	92

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0017	NBH14-0025	NBH14-0045	NBH14-0049
Battelle ID	M8156-P	M8158-P	M8163-P	M8164-P
Sample Type	SA	SA	SA	SA
Collection Date	09/22/2014	09/22/2014	09/23/2014	09/23/2014
Extraction Date	10/27/2014	10/27/2014	10/27/2014	10/27/2014
Analysis Date	10/31/2014	10/31/2014	10/31/2014	10/31/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	4.40	0.54	8.90	6.49
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	0.98	2.62	0.91	0.94
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	310	D	26.0	199	D	701	D	
Cl3(18)	720	D	57.6	572	D	1680	D	
Cl3(28)	1810	D	133	D	1260	D	3820	D
Cl4(44)	684	D	54.4	500	D	1550	D	
Cl4(52)	2690	D	214	D	1960	D	5630	D
Cl4(66)	546	D	43.6	365	D	1080	D	
Cl5(101)	863	D	65.4	610	D	1640	D	
Cl5(105)	205		33.8	113		285		
Cl5(118)	1160	D	134	760	D	1730	D	
Cl6(128)	143		21.7	81.9		265		
Cl6(138)	771	D	84.0	491	D	1120	D	
Cl6(153)	1050	D	103	666	D	1620	D	
Cl7(170)	106		11.2	58.0		207		
Cl7(180)	159		17.8	91.4		322		
Cl7(187)	158		15.2	92.2	p	259		
Cl8(195)	18.8		1.56	10.3	p	36.2		
Cl9(206)	22.4		1.50	11.5		37.1		
Cl10(209)	7.33		0.969	U	3.51	12.8		

Surrogate Recoveries (%)

Cl3(34)	105		97	100		89	
Cl6(152)	84		81	79		86	

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0053	NBH14-0061	NBH14-0057	NBH14-0069
Battelle ID	M8165-P	M8166-P	M8347-P	M8348-P
Sample Type	SA	SA	SA	SA
Collection Date	09/23/2014	09/23/2014	09/30/2014	09/30/2014
Extraction Date	10/27/2014	10/27/2014	10/27/2014	10/27/2014
Analysis Date	10/31/2014	10/31/2014	10/31/2014	10/31/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	2.09	2.62	2.15	0.52
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	2.51	1.03	1.15	1.00
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	117	91.3	82.9	20.3
Cl3(18)	204 D	182 D	188 D	53.1
Cl3(28)	432 D	554 D	438 D	109
Cl4(44)	138 D	157	108	44.2
Cl4(52)	631 D	794 D	698 D	216
Cl4(66)	124	148	121	41.8
Cl5(101)	189 D	159	140	50.1
Cl5(105)	35.9	47.0	39.2	10.6
Cl5(118)	192 D	306	278	70.2
Cl6(128)	31.1	37.9	34.9	11.2
Cl6(138)	171 p	176	151	51.4
Cl6(153)	192 D	272	244	74.0
Cl7(170)	20.4	28.9	25.3	6.38
Cl7(180)	32.2	44.1	40.6	10.4
Cl7(187)	31.3	46.0	44.4 p	20.1 p
Cl8(195)	3.68	4.10	3.82	2.54 U
Cl9(206)	4.15	4.54	4.65	2.53 U
Cl10(209)	1.22	2.46 U	2.21 U	2.54 U

Surrogate Recoveries (%)

Cl3(34)	86	105	106	95
Cl6(152)	89	83	80	86

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0203	NBH14-0215	NBH14-0219	NBH14-0234
Battelle ID	M8355-P	M8358-P	M8359-P	M8365-P
Sample Type	SA	SA	SA	SA
Collection Date	09/26/2014	09/26/2014	09/26/2014	09/24/2014
Extraction Date	10/27/2014	10/27/2014	10/27/2014	10/27/2014
Analysis Date	10/31/2014	10/31/2014	10/31/2014	11/01/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	23.24	10.88	1.04	0.51
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	0.82	1.00	1.07	10.10
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	29300	D	333	D	306	D	0.250	U
Cl3(18)	68800	D	777	D	716	D	0.251	U
Cl3(28)	65500	D	2000	D	1840	D	0.0713	J
Cl4(44)	11200	D	852	D	734	D	0.251	U
Cl4(52)	107000	D	3740	D	3240	D	0.168	pJ
Cl4(66)	4190	D	578	D	575	D	0.250	U
Cl5(101)	4530	D	790	D	739	D	0.339	p
Cl5(105)	232		152		113		0.251	U
Cl5(118)	2680	D	942	D	795	D	0.177	J
Cl6(128)	286	D	144		140		0.251	pU
Cl6(138)	2880	D	773	Dp	619	Dp	0.206	J
Cl6(153)	4960	D	1080	D	875	D	0.408	p
Cl7(170)	402	D	116		104		0.251	U
Cl7(180)	794	D	192		160		0.251	U
Cl7(187)	1360	D	195		156		0.251	U
Cl8(195)	133	p	32.6		20.9		0.251	U
Cl9(206)	199	p	62.5		24.3		0.250	U
Cl10(209)	46.7	p	12.5		7.64		0.251	U

Surrogate Recoveries (%)

Cl3(34)	69		108		110		97	
Cl6(152)	80		94		108		89	

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0257	NBH14-0261	NBH14-0265	NBH14-0314
Battelle ID	M8371-P	M8372-P	M8373-P	M8383-P
Sample Type	SA	SA	SA	SA
Collection Date	09/29/2014	09/29/2014	09/29/2014	09/30/2014
Extraction Date	10/27/2014	10/27/2014	10/27/2014	10/27/2014
Analysis Date	11/01/2014	11/01/2014	11/01/2014	11/01/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	2.58	0.51	1.54	2.44
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	2.46	2.49	2.50	2.47
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	9.86	21.9	102	137	D
Cl3(18)	20.4	42.3	207	267	D
Cl3(28)	71.7	169	548	899	D
Cl4(44)	16.2	38.8	179	325	D
Cl4(52)	77.1	236	732	1130	D
Cl4(66)	23.8	46.8	228	441	D
Cl5(101)	31.2	62.4	336	614	D
Cl5(105)	15.5	22.8	73.9	284	D
Cl5(118)	72.3	127	390	1070	D
Cl6(128)	11.4	17.9	67.2	178	D
Cl6(138)	44.8	73.9	272	743	D
Cl6(153)	56.6	105	373	787	D
Cl7(170)	5.58	11.3	40.2	108	
Cl7(180)	8.93	16.7	59.1	136	D
Cl7(187)	7.83	19.2	138	108	p
Cl8(195)	0.430	1.55	7.07	17.4	J
Cl9(206)	0.401	1.99	7.92	18.7	J
Cl10(209)	1.03	1.02	2.22	7.90	U

Surrogate Recoveries (%)

Cl3(34)	100	93	101	110
Cl6(152)	81	78	97	87

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0318	NBH14-0322	NBH14-0326	NBH14-0165
Battelle ID	M8384-P	M8385-P	M8386-P	M8403-P
Sample Type	SA	SA	SA	SA
Collection Date	09/30/2014	09/30/2014	09/30/2014	09/25/2014
Extraction Date	10/27/2014	10/27/2014	10/27/2014	10/27/2014
Analysis Date	11/01/2014	11/01/2014	11/01/2014	11/01/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	1.07	5.76	4.86	1.04
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	2.49	2.44	2.42	0.99
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	96.9 D	50.3	144 D	13.2
Cl3(18)	194 D	102 D	298 D	37.2
Cl3(28)	518 D	305 D	763 D	86.4
Cl4(44)	225 D	133 D	299 D	36.5
Cl4(52)	767 D	446 D	1140 D	146
Cl4(66)	246 D	151 D	352 D	28.5
Cl5(101)	372 D	224 D	486 D	40.1
Cl5(105)	158	59.5	152	9.09
Cl5(118)	568 D	286 D	667 D	56.5
Cl6(128)	116	46.8	122	7.81
Cl6(138)	417 D	196 D	455 D	39.6
Cl6(153)	441 D	219 D	583 D	48.7
Cl7(170)	58.5	25.4	76.8	3.82
Cl7(180)	86.4	36.4	114	7.04
Cl7(187)	55.9	42.5 p	102	9.46
Cl8(195)	9.20	3.70	13.7	2.56 U
Cl9(206)	8.68	3.29	13.5	2.55 U
Cl10(209)	4.65	1.30	6.24	2.56 U

Surrogate Recoveries (%)

Cl3(34)	115	102	110	98
Cl6(152)	97	94	94	89

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0061	NBH14-0061	
Battelle ID	M8166-P	M8166DUP-P	
Sample Type	SA	QADU	
Collection Date	09/23/2014	09/23/2014	
Extraction Date	10/27/2014	10/27/2014	
Analysis Date	10/31/2014	10/31/2014	
Analytical Instrument	ECD	ECD	
% Moisture	2.62	4.21	
% Lipid	NA	NA	
Matrix	SED	SED	
Sample Size	1.03	1.02	
Size Unit-Basis	G_DRY	G_DRY	
Units	NG/G_DRY	NG/G_DRY	RPD Qual

Cl2(8)	91.3	82.3	10.4
Cl3(18)	182 D	197	7.9
Cl3(28)	554 D	464 D	17.7
Cl4(44)	157	146	7.3
Cl4(52)	794 D	745 D	6.4
Cl4(66)	148	166	11.5
Cl5(101)	159	148	7.2
Cl5(105)	47.0	43.3	8.2
Cl5(118)	306	262	15.5
Cl6(128)	37.9	34.4	9.7
Cl6(138)	176	177 p	0.6
Cl6(153)	272	235	14.6
Cl7(170)	28.9	25.3	13.3
Cl7(180)	44.1	37.8	15.4
Cl7(187)	46.0	43.3	6.0
Cl8(195)	4.10	4.40 p	7.1
Cl9(206)	4.54	3.98	13.1
Cl10(209)	2.46 U	2.49 pU	

Surrogate Recoveries (%)

Cl3(34)	105	103	
Cl6(152)	83	73	

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0234	NBH14-0234			
Battelle ID	M8365-P	M8365MS-P			
Sample Type	SA	MS			
Collection Date	09/24/2014	09/24/2014			
Extraction Date	10/27/2014	10/27/2014			
Analysis Date	11/01/2014	11/01/2014			
Analytical Instrument	ECD	ECD			
% Moisture	0.51	0.52			
% Lipid	NA	NA			
Matrix	SED	SED			
Sample Size	10.10	4.97			
Size Unit-Basis	G_DRY	G_DRY			
Units	NG/G_DRY	NG/G_DRY	Target	% REC	Qual
Cl2(8)	0.250 U	11.4	12.58	91	
Cl3(18)	0.251 U	11.8	12.58	94	
Cl3(28)	0.0713 J	12.3	12.58	97	
Cl4(44)	0.251 U	14.4	12.58	114	
Cl4(52)	0.168 pJ	12.6	12.58	99	
Cl4(66)	0.250 U	12.2	12.58	97	
Cl5(101)	0.339 p	11.3	12.58	87	
Cl5(105)	0.251 U	12.5	12.58	99	
Cl5(118)	0.177 J	13.1	12.58	103	
Cl6(128)	0.251 pU	12.7	12.58	101	
Cl6(138)	0.206 J	13.0	12.58	102	
Cl6(153)	0.408 p	12.5	12.58	96	
Cl7(170)	0.251 U	12.4	12.58	99	
Cl7(180)	0.251 U	12.7	12.58	101	
Cl7(187)	0.251 U	12.9	12.58	103	
Cl8(195)	0.251 U	12.7	12.58	101	
Cl9(206)	0.250 U	12.1	12.58	96	
Cl10(209)	0.251 U	12.4	12.58	99	
Surrogate Recoveries (%)					
Cl3(34)	97	91			
Cl6(152)	89	90			

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID NBH14-0234

Battelle ID M8365MSD-P

Sample Type MSD

Collection Date 09/24/2014

Extraction Date 10/27/2014

Analysis Date 11/01/2014

Analytical Instrument ECD

% Moisture 1.03

% Lipid NA

Matrix SED

Sample Size 4.96

Size Unit-Basis G_DRY

Units NG/G_DRY **Target % REC Qual RPD Qual**

		Target	% REC	Qual	RPD	Qual
CI2(8)	11.2	12.60	89		2.2	
CI3(18)	11.2	12.60	89		5.5	
CI3(28)	12.0	12.60	95		2.1	
CI4(44)	14.2	12.60	113		0.9	
CI4(52)	12.5	12.60	98		1.0	
CI4(66)	12.0	12.60	95		2.1	
CI5(101)	11.4	12.60	88		1.1	
CI5(105)	12.1	12.60	96		3.1	
CI5(118)	12.6	12.60	99		4.0	
CI6(128)	12.0	12.60	95		6.1	
CI6(138)	13.2	12.60	103		1.0	
CI6(153)	12.2	12.60	94		2.1	
CI7(170)	11.9	12.60	94		5.2	
CI7(180)	12.2	12.60	97		4.0	
CI7(187)	12.1	12.60	96		7.0	
CI8(195)	12.2	12.60	97		4.0	
CI9(206)	12.0	12.60	95		1.0	
CI10(209)	12.5	12.60	99		0.0	

Surrogate Recoveries (%)

CI3(34)	86
CI6(152)	91

Glossary of Data Qualifiers

Flag: Application:

- B Analyte concentration found in the sample at a concentration <5x the level found in the procedural blank.
- D Dilution Run. Initial run outside linear range of instrument.
- E Estimate, result is greater than the highest concentration level in the calibration.
- H Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
- J Analyte detected below the sample-specific Reporting Limit (RL).
- m Confirmation column manually over-ridden by analyst, dual column quantitative analysis only.
- ME Significant Matrix Interference - Estimated value.
- MI Significant Matrix Interference - value could not be determined or estimated.
- n Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets the contingency criteria.
- N Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
- NA Not applicable
- p Dual column value exceeds RPD criteria, dual column quantitative analysis only.
- T Holding Time (HT) exceeded.
- U Analyte not detected at 3:1 signal:noise ratio.

**QA/QC Summary
Batch 14-0494**

Project:	USACE/NAE – New Bedford Harbor Long Term Monitoring
Parameters:	PCB Congeners (NOAA 18)
Laboratory:	Battelle, Norwell, MA
Matrix:	Sediment
Data Set:	DP-14-0676
Analytical SOP:	5-128
Method Reference:	EPA Method 8081 and 8082A (modified)

Sample Custody

Collection Date	Receipt Date	Temp (°C)
9/22-30/2014	9/26, 10/1/2014	1.0, 1.2

Corrective Actions	NA
Sample Storage	The sediment samples were stored frozen until extraction.
Related samples	NA

METHOD SUMMARIES

Sample Preparation	<p>Prior to sediment extraction, an aliquot of approximately 30 g of wet sediment was placed on clean, labeled aluminum foil, covered and placed in a laboratory laminar flow hood to dry the sample to <50% moisture. Aliquots of these dried samples were weighed into sample extraction vessels for sample extraction. Approximately 1 to 10 g sediment was weighed out for extraction (sample weight based on historical analysis results). The sediments were spiked with surrogates, extracted three times with methylene chloride, and the extracts combined, dried over anhydrous sodium sulfate, and concentrated. The concentrated extracts were processed through Florisil to isolate the PCBs, followed by activated copper treatment to remove sulfur. The cleaned extract was concentrated and fortified with internal standard (IS) compounds prior to analysis by GC/ECD.</p>
Prep Comments	No comments.

Analysis	<p>PCBs were analyzed by gas chromatography electron capture detection (GC/ECD). An initial calibration consisting of target analytes was analyzed prior to sample analysis to demonstrate the linear range. Calibration verification was performed at the beginning and end of each 24-hr period in which samples were analyzed. Concentrations of target compounds were calculated versus internal standards using the average response factors (RF) generated from the initial calibration.</p>
Analysis Comments	<ul style="list-style-type: none"> Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96, 28, 66, and 101. As these interferences are not matrix derived, but stem from

**QA/QC Summary
Batch 14-0494**

	<p>additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.</p> <ul style="list-style-type: none"> • In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency. • In cases where p qualifiers are present, integrations and data were reviewed. • The internal standard area for the secondary column PCB 96 is higher than the acceptable range in sample M8355-P(2). All target analytes quantified vs. PCB 96 except the SIS PCB 34 are reported from diution. As all surrogates pass in the affected sample, the sample is reported. • Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak. Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
--	---

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/27/2014	10/31/2014, 11/1-2/2014

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
Blank value <5x ssMDL	No exceedances noted.
Samples >5X PB	No comments.

Laboratory Control Spike	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
70-130% recovery	No exceedances noted.
<30% RPD	No comments.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	A MS/MSD pair was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy. The relative percent difference (RPD) was calculated to measure data quality in terms of precision.
70-130% recovery	No exceedances noted
<30% RPD	No comments.
Spike must be >5x bkgd conc.	

**QA/QC Summary
Batch 14-0494**

Sample Duplicate (DUP)	A laboratory duplicate of one sediment was prepared with the analytical batch. The relative percent difference (RPD) was calculated to measure data quality in terms of precision. NOTE: This QC sample was inadvertently included in the sample batch instead of the requested SRM.
<30% RPD	No exceedances noted.
Conc must be >10X MDL	No comments.

Surrogate Recovery	Surrogate compounds were added prior to extraction. The surrogate recoveries are calculated to measure extraction efficiency.
40-120% recovery	No exceedances noted. No comments.

Initial Calibration (ICAL)	The GC/ECD was calibrated with six-level quadratic calibration curve for all compounds using an instrument response factor (RF).
$R^2 \geq 0.995$	No exceedances noted. No comments.

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
$\leq 20\%$ difference individual and mean	No exceedances noted. No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run every 24 hours to ensure that initial calibration is still valid.
$\leq 20\%$ difference individual; $\leq 15\%$ difference mean	No exceedances noted. No comments.

Report Project Data Set MOOs

Project Title: USACE/NAE - New Bedford Harbor LTM

Data Set Number: DP-14-0676

Project Number: 100053747

Prep Batch Number: 14-0494

Test Code (Matrix Type): Master_128(S)

QC_PARAMETER:	Exceed:	Contg.:	JUSTIFICATION:
Procedural Blank	0	0	None
PB Measurement Quality Objective	0	0	None
Laboratory Control Sample	0	0	None
Matrix Spike Recovery	0	0	None
Matrix Spike/Spike Duplicate Precision	0	0	None
Standard Reference Material Accuracy	NA	NA	NA
Analytical Duplicate Precision	0	0	None
Analytical Triplicate Precision	NA	NA	NA
Surrogate Compound Recovery	0	0	None
Control Oil	NA	NA	NA
Instrument Calibration	0	0	None
Independent Calibration Check Solution	0	0	None
Continuing Calibration Verification	0	0	None

BATTELLE - DUXBURY OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title: USACE/NAE - New Bedford Harbor LTM **Data Set Number:** DP-14-0676
Project Number: 100053747 **Prep Batch Number:** 14-0494
Entered By: Richard Restucci Jr **Entered On:** 11/20/2014
Test Code (Matrix Type): Master_128(S)

Integrations by Rich Restucci.
RR 11/20/14

Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak.

Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
RR 12/8/14

Method MM0417C utilizes the quant sheets from MM0417B.
RR 11/20/14

Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.
RR 11/20/14

In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency.
RR 11/20/14

In cases where p qualifiers are present, integrations and data were reviewed.
RR 11/20/14

The internal standard area for the secondary column PCB 96 is higher than the acceptable range in sample M8355-P(2). All target analytes quantified vs. PCB 96 except the SIS PCB 34 are reported from dilution. As all surrogates pass in the affected sample, the sample is reported.
RR 11/20/14

Task Leader Approval:



Kevin McInerney
2014.12.10 10:22:55 -05'00'

Supervisor Approval:



Carole McCarthy
2014.12.10 10:24:03 -05'00'

PM Approval:

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	2021371
SM0417.S	M7207.D	IE05	CS	CI5(96)	2103011
SM0417.S	M7208.D	IE06	CS	CI5(96)	2225995
SM0417.S	M7209.D	IE07	CS	CI5(96)	2400478
SM0417.S	M7210.D	IE08	CS	CI5(96)	2523572
SM0417.S	M7212.D	IE10	CS	CI5(96)	2857033

L3 2225995
 (+) 4451990
 (-) 1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	2508888	
SM0420.S	M7366.D	IE08	CCV	CI5(96)	2882190	
SM0420.S	M7367.D	CD582PB-P(0)	PB	CI5(96)	3044845	
SM0420.S	M7368.D	CD583LCS-P(0)	LCS	CI5(96)	3329406	
SM0420.S	M7369.D	M8156-P(2)	SA	CI5(96)	2970953	
SM0420.S	M7370.D	M8158-P(2)	SA	CI5(96)	3457950	
SM0420.S	M7371.D	M8163-P(2)	SA	CI5(96)	3262719	
SM0420.S	M7372.D	M8164-P(2)	SA	CI5(96)	3135901	
SM0420.S	M7373.D	M8165-P(2)	SA	CI5(96)	2889280	
SM0420.S	M7374.D	M8166-P(2)	SA	CI5(96)	3598343	
SM0420.S	M7375.D	M8166DUP-P(2)	QADU	CI5(96)	3190390	
SM0420.S	M7376.D	M8347-P(2)	SA	CI5(96)	3398551	
SM0420.S	M7377.D	IE07	CCV	CI5(96)	3346131	
SM0420.S	M7378.D	M8348-P(2)	SA	CI5(96)	3751008	
SM0420.S	M7379.D	M8355-P(2)	SA	CI5(96)	2995612	
SM0420.S	M7380.D	M8358-P(2)	SA	CI5(96)	2680242	
SM0420.S	M7381.D	M8359-P(2)	SA	CI5(96)	3315182	
SM0420.S	M7382.D	M8365-P(2)	SA	CI5(96)	3821195	
SM0420.S	M7383.D	M8365MS-P(0)	MS	CI5(96)	3843951	
SM0420.S	M7384.D	M8365MSD-P(0)	MSD	CI5(96)	3569199	
SM0420.S	M7385.D	M8371-P(2)	SA	CI5(96)	3353200	
SM0420.S	M7386.D	M8372-P(2)	SA	CI5(96)	3992391	
SM0420.S	M7387.D	M8373-P(2)	SA	CI5(96)	2863330	
SM0420.S	M7388.D	IE08	CCV	CI5(96)	3628030	
SM0420.S	M7389.D	M8383-P(2)	SA	CI5(96)	3793854	
SM0420.S	M7390.D	M8384-P(2)	SA	CI5(96)	3341359	
SM0420.S	M7391.D	M8385-P(2)	SA	CI5(96)	3888502	
SM0420.S	M7392.D	M8386-P(2)	SA	CI5(96)	3459587	
SM0420.S	M7393.D	M8403-P(2)	SA	CI5(96)	3790051	
SM0420.S	M7394.D	M8156-P-D(4)	SA	CI5(96)	3466074	
SM0420.S	M7395.D	M8158-P-D(4)	SA	CI5(96)	3279599	
SM0420.S	M7396.D	M8163-P-D(4)	SA	CI5(96)	3302286	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0420.S	M7397.D	M8164-P-D(4)	SA	CI5(96)	3315341	
SM0420.S	M7398.D	M8165-P-D(4)	SA	CI5(96)	3372956	
SM0420.S	M7399.D	IE07	CCV	CI5(96)	3678142	
SM0420.S	M7400.D	M8166-P-D(4)	SA	CI5(96)	3157509	
SM0420.S	M7401.D	M8166DUP-P-D(4)	QADU	CI5(96)	3336950	
SM0420.S	M7402.D	M8347-P-D(4)	SA	CI5(96)	3090849	
SM0420.S	M7404.D	M8355-P-D(4)	SA	CI5(96)	3379773	
SM0420.S	M7405.D	M8358-P-D(4)	SA	CI5(96)	3343615	
SM0420.S	M7406.D	M8359-P-D(4)	SA	CI5(96)	3679872	
SM0420.S	M7409.D	M8372-P-D(4)	SA	CI5(96)	3236758	
SM0420.S	M7410.D	IE08	CCV	CI5(96)	3923147	
SM0420.S	M7411.D	M8373-P-D(4)	SA	CI5(96)	3271043	
SM0420.S	M7412.D	M8383-P-D(4)	SA	CI5(96)	3422873	
SM0420.S	M7413.D	M8384-P-D(4)	SA	CI5(96)	3468014	
SM0420.S	M7414.D	M8385-P-D(4)	SA	CI5(96)	3195384	
SM0420.S	M7415.D	M8386-P-D(4)	SA	CI5(96)	3347894	
SM0420.S	M7421.D	IE07	CCV	CI5(96)	3669074	
SM0420.S	M7427.D	M8355-P-D(5)	SA	CI5(96)	3438092	
SM0420.S	M7432.D	IE08	CCV	CI5(96)	3835624	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	4304957
SM0417.S	M7207.D	IE05	CS	Cl6(161)	4562564
SM0417.S	M7208.D	IE06	CS	Cl6(161)	4815577
SM0417.S	M7209.D	IE07	CS	Cl6(161)	5366502
SM0417.S	M7210.D	IE08	CS	Cl6(161)	5424577
SM0417.S	M7212.D	IE10	CS	Cl6(161)	5785136

L3 4815577
 (+) 9631155
 (-) 2407789

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	5353469	
SM0420.S	M7366.D	IE08	CCV	Cl6(161)	5955181	
SM0420.S	M7367.D	CD582PB-P(0)	PB	Cl6(161)	5449036	
SM0420.S	M7368.D	CD583LCS-P(0)	LCS	Cl6(161)	5532874	
SM0420.S	M7369.D	M8156-P(2)	SA	Cl6(161)	5526953	
SM0420.S	M7370.D	M8158-P(2)	SA	Cl6(161)	7336190	
SM0420.S	M7371.D	M8163-P(2)	SA	Cl6(161)	8389753	
SM0420.S	M7372.D	M8164-P(2)	SA	Cl6(161)	4581626	
SM0420.S	M7373.D	M8165-P(2)	SA	Cl6(161)	4967334	
SM0420.S	M7374.D	M8166-P(2)	SA	Cl6(161)	8569371	
SM0420.S	M7375.D	M8166DUP-P(2)	QADU	Cl6(161)	7781021	
SM0420.S	M7376.D	M8347-P(2)	SA	Cl6(161)	8055989	
SM0420.S	M7377.D	IE07	CCV	Cl6(161)	7516612	
SM0420.S	M7378.D	M8348-P(2)	SA	Cl6(161)	7641392	
SM0420.S	M7379.D	M8355-P(2)	SA	Cl6(161)	8788341	
SM0420.S	M7380.D	M8358-P(2)	SA	Cl6(161)	6090720	
SM0420.S	M7381.D	M8359-P(2)	SA	Cl6(161)	5136392	
SM0420.S	M7382.D	M8365-P(2)	SA	Cl6(161)	7831186	
SM0420.S	M7383.D	M8365MS-P(0)	MS	Cl6(161)	7749962	
SM0420.S	M7384.D	M8365MSD-P(0)	MSD	Cl6(161)	6782213	
SM0420.S	M7385.D	M8371-P(2)	SA	Cl6(161)	6656149	
SM0420.S	M7386.D	M8372-P(2)	SA	Cl6(161)	8711899	
SM0420.S	M7387.D	M8373-P(2)	SA	Cl6(161)	4784807	
SM0420.S	M7388.D	IE08	CCV	Cl6(161)	7918673	
SM0420.S	M7389.D	M8383-P(2)	SA	Cl6(161)	5941149	
SM0420.S	M7390.D	M8384-P(2)	SA	Cl6(161)	5676223	
SM0420.S	M7391.D	M8385-P(2)	SA	Cl6(161)	6079238	
SM0420.S	M7392.D	M8386-P(2)	SA	Cl6(161)	5276256	
SM0420.S	M7393.D	M8403-P(2)	SA	Cl6(161)	7630537	
SM0420.S	M7394.D	M8156-P-D(4)	SA	Cl6(161)	7838020	
SM0420.S	M7395.D	M8158-P-D(4)	SA	Cl6(161)	7615896	
SM0420.S	M7396.D	M8163-P-D(4)	SA	Cl6(161)	7591863	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0420.S	M7397.D	M8164-P-D(4)	SA	Cl6(161)	7656844	
SM0420.S	M7398.D	M8165-P-D(4)	SA	Cl6(161)	7799583	
SM0420.S	M7399.D	IE07	CCV	Cl6(161)	8525114	
SM0420.S	M7400.D	M8166-P-D(4)	SA	Cl6(161)	6862045	
SM0420.S	M7401.D	M8166DUP-P-D(4)	QADU	Cl6(161)	7597941	
SM0420.S	M7402.D	M8347-P-D(4)	SA	Cl6(161)	6842783	
SM0420.S	M7404.D	M8355-P-D(4)	SA	Cl6(161)	8172873	
SM0420.S	M7405.D	M8358-P-D(4)	SA	Cl6(161)	7623060	
SM0420.S	M7406.D	M8359-P-D(4)	SA	Cl6(161)	8593347	
SM0420.S	M7409.D	M8372-P-D(4)	SA	Cl6(161)	7104180	
SM0420.S	M7410.D	IE08	CCV	Cl6(161)	8844389	
SM0420.S	M7411.D	M8373-P-D(4)	SA	Cl6(161)	7327054	
SM0420.S	M7412.D	M8383-P-D(4)	SA	Cl6(161)	8205035	
SM0420.S	M7413.D	M8384-P-D(4)	SA	Cl6(161)	8027854	
SM0420.S	M7414.D	M8385-P-D(4)	SA	Cl6(161)	7156403	
SM0420.S	M7415.D	M8386-P-D(4)	SA	Cl6(161)	7813756	
SM0420.S	M7421.D	IE07	CCV	Cl6(161)	8207625	
SM0420.S	M7427.D	M8355-P-D(5)	SA	Cl6(161)	8008160	
SM0420.S	M7432.D	IE08	CCV	Cl6(161)	8717281	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12822282
SM0417.S	M7207.D	IE05	CS	CI5(96)	12416297
SM0417.S	M7208.D	IE06	CS	CI5(96)	13716870
SM0417.S	M7209.D	IE07	CS	CI5(96)	14992953
SM0417.S	M7210.D	IE08	CS	CI5(96)	15446142
SM0417.S	M7212.D	IE10	CS	CI5(96)	15534608
				L3	13716870
				(+)	27433739
				(-)	6858435

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13969685	
SM0420.S	M7366.D	IE08	CCV	CI5(96)	14867149	
SM0420.S	M7367.D	CD582PB-P(0)	PB	CI5(96)	14993632	
SM0420.S	M7368.D	CD583LCS-P(0)	LCS	CI5(96)	15833236	
SM0420.S	M7369.D	M8156-P(2)	SA	CI5(96)	13601396	
SM0420.S	M7370.D	M8158-P(2)	SA	CI5(96)	14417732	
SM0420.S	M7371.D	M8163-P(2)	SA	CI5(96)	14729978	
SM0420.S	M7372.D	M8164-P(2)	SA	CI5(96)	12791436	
SM0420.S	M7373.D	M8165-P(2)	SA	CI5(96)	14490294	
SM0420.S	M7374.D	M8166-P(2)	SA	CI5(96)	15090254	
SM0420.S	M7375.D	M8166DUP-P(2)	QADU	CI5(96)	15038630	
SM0420.S	M7376.D	M8347-P(2)	SA	CI5(96)	15534742	
SM0420.S	M7377.D	IE07	CCV	CI5(96)	16866362	
SM0420.S	M7378.D	M8348-P(2)	SA	CI5(96)	16746505	
SM0420.S	M7379.D	M8355-P(2)	SA	CI5(96)	34038957	>
SM0420.S	M7380.D	M8358-P(2)	SA	CI5(96)	15082738	
SM0420.S	M7381.D	M8359-P(2)	SA	CI5(96)	15174739	
SM0420.S	M7382.D	M8365-P(2)	SA	CI5(96)	15956584	
SM0420.S	M7383.D	M8365MS-P(0)	MS	CI5(96)	15872934	
SM0420.S	M7384.D	M8365MSD-P(0)	MSD	CI5(96)	16200820	
SM0420.S	M7385.D	M8371-P(2)	SA	CI5(96)	14777351	
SM0420.S	M7386.D	M8372-P(2)	SA	CI5(96)	15350953	
SM0420.S	M7387.D	M8373-P(2)	SA	CI5(96)	12254187	
SM0420.S	M7388.D	IE08	CCV	CI5(96)	17623513	
SM0420.S	M7389.D	M8383-P(2)	SA	CI5(96)	11199480	
SM0420.S	M7390.D	M8384-P(2)	SA	CI5(96)	12907681	
SM0420.S	M7391.D	M8385-P(2)	SA	CI5(96)	13172187	
SM0420.S	M7392.D	M8386-P(2)	SA	CI5(96)	12144629	
SM0420.S	M7393.D	M8403-P(2)	SA	CI5(96)	15553799	
SM0420.S	M7394.D	M8156-P-D(4)	SA	CI5(96)	16633640	
SM0420.S	M7395.D	M8158-P-D(4)	SA	CI5(96)	16468943	
SM0420.S	M7396.D	M8163-P-D(4)	SA	CI5(96)	15692876	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0420.S	M7397.D	M8164-P-D(4)	SA	CI5(96)	15673249	
SM0420.S	M7398.D	M8165-P-D(4)	SA	CI5(96)	16231611	
SM0420.S	M7399.D	IE07	CCV	CI5(96)	18104292	
SM0420.S	M7400.D	M8166-P-D(4)	SA	CI5(96)	17039075	
SM0420.S	M7401.D	M8166DUP-P-D(4)	QADU	CI5(96)	15884478	
SM0420.S	M7402.D	M8347-P-D(4)	SA	CI5(96)	15749820	
SM0420.S	M7404.D	M8355-P-D(4)	SA	CI5(96)	15727574	
SM0420.S	M7405.D	M8358-P-D(4)	SA	CI5(96)	16269025	
SM0420.S	M7406.D	M8359-P-D(4)	SA	CI5(96)	15794122	
SM0420.S	M7409.D	M8372-P-D(4)	SA	CI5(96)	16613388	
SM0420.S	M7410.D	IE08	CCV	CI5(96)	19800765	
SM0420.S	M7411.D	M8373-P-D(4)	SA	CI5(96)	15708846	
SM0420.S	M7412.D	M8383-P-D(4)	SA	CI5(96)	15858214	
SM0420.S	M7413.D	M8384-P-D(4)	SA	CI5(96)	15852208	
SM0420.S	M7414.D	M8385-P-D(4)	SA	CI5(96)	16476175	
SM0420.S	M7415.D	M8386-P-D(4)	SA	CI5(96)	15973481	
SM0420.S	M7421.D	IE07	CCV	CI5(96)	19000429	
SM0420.S	M7427.D	M8355-P-D(5)	SA	CI5(96)	16120840	
SM0420.S	M7432.D	IE08	CCV	CI5(96)	19368007	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	28199596
SM0417.S	M7207.D	IE05	CS	Cl6(161)	27129752
SM0417.S	M7208.D	IE06	CS	Cl6(161)	29503850
SM0417.S	M7209.D	IE07	CS	Cl6(161)	34497986
SM0417.S	M7210.D	IE08	CS	Cl6(161)	34872167
SM0417.S	M7212.D	IE10	CS	Cl6(161)	28894537
				L3	29503850
				(+)	59007699
				(-)	14751925

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	30447371	
SM0420.S	M7366.D	IE08	CCV	Cl6(161)	32248189	
SM0420.S	M7367.D	CD582PB-P(0)	PB	Cl6(161)	30888653	
SM0420.S	M7368.D	CD583LCS-P(0)	LCS	Cl6(161)	33282462	
SM0420.S	M7369.D	M8156-P(2)	SA	Cl6(161)	25848095	
SM0420.S	M7370.D	M8158-P(2)	SA	Cl6(161)	30068118	
SM0420.S	M7371.D	M8163-P(2)	SA	Cl6(161)	27890994	
SM0420.S	M7372.D	M8164-P(2)	SA	Cl6(161)	23663248	
SM0420.S	M7373.D	M8165-P(2)	SA	Cl6(161)	28235818	
SM0420.S	M7374.D	M8166-P(2)	SA	Cl6(161)	31678881	
SM0420.S	M7375.D	M8166DUP-P(2)	QADU	Cl6(161)	38922832	
SM0420.S	M7376.D	M8347-P(2)	SA	Cl6(161)	33866995	
SM0420.S	M7377.D	IE07	CCV	Cl6(161)	40275220	
SM0420.S	M7378.D	M8348-P(2)	SA	Cl6(161)	39435531	
SM0420.S	M7379.D	M8355-P(2)	SA	Cl6(161)	23315495	
SM0420.S	M7380.D	M8358-P(2)	SA	Cl6(161)	29331208	
SM0420.S	M7381.D	M8359-P(2)	SA	Cl6(161)	27640216	
SM0420.S	M7382.D	M8365-P(2)	SA	Cl6(161)	37894546	
SM0420.S	M7383.D	M8365MS-P(0)	MS	Cl6(161)	36512169	
SM0420.S	M7384.D	M8365MSD-P(0)	MSD	Cl6(161)	36953227	
SM0420.S	M7385.D	M8371-P(2)	SA	Cl6(161)	32303495	
SM0420.S	M7386.D	M8372-P(2)	SA	Cl6(161)	31924071	
SM0420.S	M7387.D	M8373-P(2)	SA	Cl6(161)	26009159	
SM0420.S	M7388.D	IE08	CCV	Cl6(161)	38521988	
SM0420.S	M7389.D	M8383-P(2)	SA	Cl6(161)	19518591	
SM0420.S	M7390.D	M8384-P(2)	SA	Cl6(161)	22544902	
SM0420.S	M7391.D	M8385-P(2)	SA	Cl6(161)	30967424	
SM0420.S	M7392.D	M8386-P(2)	SA	Cl6(161)	21914347	
SM0420.S	M7393.D	M8403-P(2)	SA	Cl6(161)	36851139	
SM0420.S	M7394.D	M8156-P-D(4)	SA	Cl6(161)	41256166	
SM0420.S	M7395.D	M8158-P-D(4)	SA	Cl6(161)	40837680	
SM0420.S	M7396.D	M8163-P-D(4)	SA	Cl6(161)	38261325	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0420.S	M7397.D	M8164-P-D(4)	SA	Cl6(161)	38959030	
SM0420.S	M7398.D	M8165-P-D(4)	SA	Cl6(161)	39829654	
SM0420.S	M7399.D	IE07	CCV	Cl6(161)	44507298	
SM0420.S	M7400.D	M8166-P-D(4)	SA	Cl6(161)	41980364	
SM0420.S	M7401.D	M8166DUP-P-D(4)	QADU	Cl6(161)	38768920	
SM0420.S	M7402.D	M8347-P-D(4)	SA	Cl6(161)	38290841	
SM0420.S	M7404.D	M8355-P-D(4)	SA	Cl6(161)	37236443	
SM0420.S	M7405.D	M8358-P-D(4)	SA	Cl6(161)	40534216	
SM0420.S	M7406.D	M8359-P-D(4)	SA	Cl6(161)	38752350	
SM0420.S	M7409.D	M8372-P-D(4)	SA	Cl6(161)	39567262	
SM0420.S	M7410.D	IE08	CCV	Cl6(161)	46635078	
SM0420.S	M7411.D	M8373-P-D(4)	SA	Cl6(161)	39087783	
SM0420.S	M7412.D	M8383-P-D(4)	SA	Cl6(161)	36778575	
SM0420.S	M7413.D	M8384-P-D(4)	SA	Cl6(161)	36940889	
SM0420.S	M7414.D	M8385-P-D(4)	SA	Cl6(161)	41396974	
SM0420.S	M7415.D	M8386-P-D(4)	SA	Cl6(161)	40415026	
SM0420.S	M7421.D	IE07	CCV	Cl6(161)	45785145	
SM0420.S	M7427.D	M8355-P-D(5)	SA	Cl6(161)	39272119	
SM0420.S	M7432.D	IE08	CCV	Cl6(161)	44531650	



The Business of Innovation

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417F.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl5(96)	2038180
SM0417.S	M7207.D	IE05	CS	Cl5(96)	2103011
SM0417.S	M7208.D	IE06	CS	Cl5(96)	2225995
SM0417.S	M7209.D	IE07	CS	Cl5(96)	2400478
SM0417.S	M7210.D	IE08	CS	Cl5(96)	2523572
SM0417.S	M7212.D	IE10	CS	Cl5(96)	2539311
				L3	2225995
				(+)	4451990
				(-)	1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl5(96)	2508888	
SM0420.S	M7366.D	IE08	CCV	Cl5(96)	2882190	
SM0420.S	M7367.D	CD582PB-P(0)	PB	Cl5(96)	3044845	
SM0420.S	M7368.D	CD583LCS-P(0)	LCS	Cl5(96)	3356394	
SM0420.S	M7370.D	M8158-P(2)	SA	Cl5(96)	3457950	
SM0420.S	M7374.D	M8166-P(2)	SA	Cl5(96)	3896128	
SM0420.S	M7375.D	M8166DUP-P(2)	QADU	Cl5(96)	3789903	
SM0420.S	M7376.D	M8347-P(2)	SA	Cl5(96)	3939877	
SM0420.S	M7377.D	IE07	CCV	Cl5(96)	3346131	
SM0420.S	M7378.D	M8348-P(2)	SA	Cl5(96)	3751008	
SM0420.S	M7382.D	M8365-P(2)	SA	Cl5(96)	3821195	
SM0420.S	M7383.D	M8365MS-P(0)	MS	Cl5(96)	3843951	
SM0420.S	M7384.D	M8365MSD-P(0)	MSD	Cl5(96)	3569199	
SM0420.S	M7385.D	M8371-P(2)	SA	Cl5(96)	3449023	
SM0420.S	M7386.D	M8372-P(2)	SA	Cl5(96)	3992391	
SM0420.S	M7388.D	IE08	CCV	Cl5(96)	3657950	
SM0420.S	M7393.D	M8403-P(2)	SA	Cl5(96)	3790051	
SM0420.S	M7394.D	M8156-P-D(4)	SA	Cl5(96)	3466074	
SM0420.S	M7396.D	M8163-P-D(4)	SA	Cl5(96)	3302286	
SM0420.S	M7397.D	M8164-P-D(4)	SA	Cl5(96)	3315341	
SM0420.S	M7398.D	M8165-P-D(4)	SA	Cl5(96)	3372956	
SM0420.S	M7399.D	IE07	CCV	Cl5(96)	3678142	
SM0420.S	M7404.D	M8355-P-D(4)	SA	Cl5(96)	3477013	
SM0420.S	M7405.D	M8358-P-D(4)	SA	Cl5(96)	3343615	
SM0420.S	M7406.D	M8359-P-D(4)	SA	Cl5(96)	3679872	
SM0420.S	M7410.D	IE08	CCV	Cl5(96)	4018721	
SM0420.S	M7411.D	M8373-P-D(4)	SA	Cl5(96)	3271043	
SM0420.S	M7412.D	M8383-P-D(4)	SA	Cl5(96)	3422873	
SM0420.S	M7413.D	M8384-P-D(4)	SA	Cl5(96)	3468014	
SM0420.S	M7414.D	M8385-P-D(4)	SA	Cl5(96)	3195384	
SM0420.S	M7415.D	M8386-P-D(4)	SA	Cl5(96)	3347894	
SM0420.S	M7421.D	IE07	CCV	Cl5(96)	3777758	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0494

METHOD: MM0417F.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12872032
SM0417.S	M7207.D	IE05	CS	CI5(96)	13386960
SM0417.S	M7208.D	IE06	CS	CI5(96)	13612237
SM0417.S	M7209.D	IE07	CS	CI5(96)	14869473
SM0417.S	M7210.D	IE08	CS	CI5(96)	15494530
SM0417.S	M7212.D	IE10	CS	CI5(96)	15194166

L3 13612237
 (+) 27224474
 (-) 6806118

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13936712	
SM0420.S	M7366.D	IE08	CCV	CI5(96)	15017810	
SM0420.S	M7367.D	CD582PB-P(0)	PB	CI5(96)	15557332	
SM0420.S	M7368.D	CD583LCS-P(0)	LCS	CI5(96)	15516830	
SM0420.S	M7370.D	M8158-P(2)	SA	CI5(96)	14427513	
SM0420.S	M7374.D	M8166-P(2)	SA	CI5(96)	16399895	
SM0420.S	M7375.D	M8166DUP-P(2)	QADU	CI5(96)	14849979	
SM0420.S	M7376.D	M8347-P(2)	SA	CI5(96)	15439767	
SM0420.S	M7377.D	IE07	CCV	CI5(96)	16778147	
SM0420.S	M7378.D	M8348-P(2)	SA	CI5(96)	16498668	
SM0420.S	M7382.D	M8365-P(2)	SA	CI5(96)	16031325	
SM0420.S	M7383.D	M8365MS-P(0)	MS	CI5(96)	15924736	
SM0420.S	M7384.D	M8365MSD-P(0)	MSD	CI5(96)	16152323	
SM0420.S	M7385.D	M8371-P(2)	SA	CI5(96)	14448956	
SM0420.S	M7386.D	M8372-P(2)	SA	CI5(96)	14437474	
SM0420.S	M7388.D	IE08	CCV	CI5(96)	16699975	
SM0420.S	M7393.D	M8403-P(2)	SA	CI5(96)	15506717	
SM0420.S	M7394.D	M8156-P-D(4)	SA	CI5(96)	16621213	
SM0420.S	M7396.D	M8163-P-D(4)	SA	CI5(96)	15622191	
SM0420.S	M7397.D	M8164-P-D(4)	SA	CI5(96)	15602009	
SM0420.S	M7398.D	M8165-P-D(4)	SA	CI5(96)	16177406	
SM0420.S	M7399.D	IE07	CCV	CI5(96)	17779911	
SM0420.S	M7404.D	M8355-P-D(4)	SA	CI5(96)	16006335	
SM0420.S	M7405.D	M8358-P-D(4)	SA	CI5(96)	16181889	
SM0420.S	M7406.D	M8359-P-D(4)	SA	CI5(96)	15729907	
SM0420.S	M7410.D	IE08	CCV	CI5(96)	19449225	
SM0420.S	M7411.D	M8373-P-D(4)	SA	CI5(96)	15691204	
SM0420.S	M7412.D	M8383-P-D(4)	SA	CI5(96)	15625537	
SM0420.S	M7413.D	M8384-P-D(4)	SA	CI5(96)	15873942	
SM0420.S	M7414.D	M8385-P-D(4)	SA	CI5(96)	16417848	
SM0420.S	M7415.D	M8386-P-D(4)	SA	CI5(96)	15959738	
SM0420.S	M7421.D	IE07	CCV	CI5(96)	18738277	

BATTELLE - DUXBURY OPERATIONS SAMPLE PREPARATION RECORDS

<u>Project Title(s)</u>	<u>Project No.(s)</u>
USACE/NAE - New Bedford Harbor LTM Study	100053747
14-0494	
USACE-NAE New Bedford Harbor LTM Study	
SED	
SOP Numbers (see workplan for modifications)	
ExtractionSOP No.	5-192
CleanupSOP No.	5-327
CleanupSOP No.	5-328

This Batch Contains The Following Samples:				
CD582PB-P	M8165-P	M8358-P	M8372-P	M8403-P
CD583LCS-P	M8166-P	M8359-P	M8373-P	
M8156-P	M8166DUP-P	M8365-P	M8383-P	
M8158-P	M8347-P	M8365MS-P	M8384-P	
M8163-P	M8348-P	M8365MSD-P	M8385-P	
M8164-P	M8355-P	M8371-P	M8386-P	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Samuel Guimaraes

Approved By:	Date	Initials
Samuel Guimaraes	10/31/2014	SG

BATTELLE - DUXBURY OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Requested On/By: 10/20/2014 KAW	Purpose: Sample Preparation
Relinquished On/By: 10/20/2014 MDS	Last Activity: Return
Accepted On/By: 10/20/2014 KAW	Returned On/To: 10/20/2014 MDS
Stored In Facility: Sample Preparation	Returned To Facility: Custody: NA
Stored Until: 10/20/2014	Returned Comment: NA
Stored Comment: NA	

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	M8156	1	--	Intact	NA
2	M8158	1	--	Intact	NA
3	M8163	1	--	Intact	NA
4	M8164	1	--	Intact	NA
5	M8165	1	--	Intact	NA
6	M8166	1	--	Intact	NA
7	M8347	1	--	Intact	NA
8	M8348	1	--	Intact	NA
9	M8355	1	--	Intact	NA
10	M8358	1	--	Intact	NA
11	M8359	1	--	Intact	NA
12	M8365	1	--	Intact	NA
13	M8371	1	--	Intact	NA
14	M8372	1	--	Intact	NA
15	M8373	1	--	Intact	NA
16	M8383	1	--	Intact	NA
17	M8384	1	--	Intact	NA
18	M8385	1	--	Intact	NA
19	M8386	1	--	Intact	NA
20	M8403	1	--	Intact	NA
Total Samples		20		* "C" = Consumed Container	

BATTELLE - DUXBURY OPERATIONS SAMPLE IDENTIFICATION PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Description
CD582PB-P	Procedural Blank
CD583LCS-P	Laboratory Control Sample
M8156-P	NBH14-0017
M8158-P	NBH14-0025
M8163-P	NBH14-0045
M8164-P	NBH14-0049
M8165-P	NBH14-0053
M8166-P	NBH14-0061
M8166DUP-P	Lab Duplicate of NBH14-0061
M8347-P	NBH14-0057
M8348-P	NBH14-0069
M8355-P	NBH14-0203
M8358-P	NBH14-0215
M8359-P	NBH14-0219
M8365-P	NBH14-0234
M8365MS-P	Matrix Spike of NBH14-0234
M8365MSD-P	Matrix Spike Duplicate of NBH14-0234
M8371-P	NBH14-0257
M8372-P	NBH14-0261
M8373-P	NBH14-0265
M8383-P	NBH14-0314

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

**BATTELLE - DUXBURY OPERATIONS
SAMPLE IDENTIFICATION PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

**USACE-NAE New Bedford Harbor LTM Study
SED**

Sample ID	Description
M8384-P	NBH14-0318
M8385-P	NBH14-0322
M8386-P	NBH14-0326
M8403-P	NBH14-0165

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CD582PB-P	NA	--	NA	NA	NA	10.02	95.84	4.16	9.60
CD583LCS-P	NA	--	NA	NA	NA	9.98	95.84	4.16	9.56
M8156-P	1	--	1.11	2.70	2.63	1.03	95.60	4.40	0.98
M8158-P	1	--	1.12	2.98	2.97	2.63	99.46	0.54	2.62
M8163-P	1	--	1.10	3.01	2.84	1.00	91.10	8.90	0.91
M8164-P	1	--	1.10	2.95	2.83	1.00	93.51	6.49	0.94
M8165-P	1	--	1.12	3.03	2.99	2.56	97.91	2.09	2.51
M8166-P	1	--	1.11	3.02	2.97	1.06	97.38	2.62	1.03
M8166DUP-P	1	--	1.10	3.00	2.92	1.06	95.79	4.21	1.02
M8347-P	1	--	1.11	2.97	2.93	1.18	97.85	2.15	1.15
M8348-P	1	--	1.11	3.05	3.04	1.01	99.48	0.52	1.00
M8355-P	1	--	1.11	2.96	2.53	1.07	76.76	23.24	0.82
M8358-P	1	--	1.10	3.03	2.82	1.12	89.12	10.88	1.00
M8359-P	1	--	1.09	3.02	3.00	1.08	98.96	1.04	1.07
M8365-P	1	--	1.11	3.06	3.05	10.15	99.49	0.51	10.10
M8365MS-P	1	--	1.09	3.00	2.99	5.00	99.48	0.52	4.97
M8365MSD-P	1	--	1.10	3.05	3.03	5.01	98.97	1.03	4.96
M8371-P	1	--	1.10	3.04	2.99	2.53	97.42	2.58	2.46
M8372-P	1	--	1.12	3.07	3.06	2.50	99.49	0.51	2.49
M8373-P	1	--	1.12	3.07	3.04	2.54	98.46	1.54	2.50
M8383-P	1	--	1.12	2.76	2.72	2.53	97.56	2.44	2.47
M8384-P	1	--	1.09	2.96	2.94	2.52	98.93	1.07	2.49
M8385-P	1	--	1.10	3.01	2.90	2.59	94.24	5.76	2.44

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
M8386-P	1	--	1.11	2.96	2.87	2.54	95.14	4.86	2.42
M8403-P	1	--	1.10	3.02	3.00	1.00	98.96	1.04	0.99

Validation of: Wet Wt.	Performed: 10/31/14 SG
----------------------------------	----------------------------------

Sample ID:	Comments:	Reference:
CD582PB-P	Average of percent dry weights from authentic samples in Batch No. 14-0494 USACE-NAE New Bedford Harbor LTM Study	NA
CD583LCS-P	Average of percent dry weights from authentic samples in Batch No. 14-0494 USACE-NAE New Bedford Harbor LTM Study	NA

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CD582PB-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
CD583LCS-P	HX10	LCS/MS	8	75	10/27/14 SG	KAW	NA
CD583LCS-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8156-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8158-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8163-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8164-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8165-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8166-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8166DUP-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8347-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8348-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8355-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8358-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8359-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8365-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8365MS-P	HX10	LCS/MS	8	125	10/27/14 SG	KAW	NA
M8365MS-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8365MSD-P	HX10	LCS/MS	8	125	10/27/14 SG	KAW	NA
M8365MSD-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8371-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8372-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8373-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8383-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8384-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8385-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA

BATTELLE - DUXBURY OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
M8386-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA
M8403-P	ID59	SIS	3	400	10/27/14 SG	KAW	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
HX10	Pipette	H0500262B
ID59	Pipette	B1100330B



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
CD582PB-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
CD583LCS-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8156-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8158-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8163-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8164-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8165-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8166-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8166DUP-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8347-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8348-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8355-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8358-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8359-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8365-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8365MS-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8365MSD-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8371-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8372-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8373-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8383-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8384-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8385-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8386-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA
M8403-P	10/27/14 KAW	10/27/14 SG	10/27/14 SG	NA	NA	65	NA

BATTELLE - DUXBURY OPERATIONS SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
-----------	------------------	-------------------	------------------	----------	-----------	-------	---------

Reagents:

Name	Expires	Lot No	Procedure	Comments
Sodium Sulfate	11/04/14	0000084928	Muffled at 400 °C for more than 4 hours. Expiration date changed from original after reagent was consumed.	

Solvents:

Name	Lot No	Comments
DCM Cycletainer	0000092595	
Hexane	0000078260	Solvent exchanged during concentration.



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT CLEANUP FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
CD582PB-P(0)	10/29/14	SG	NA
CD583LCS-P(0)	10/29/14	SG	NA
M8156-P(0)	10/29/14	SG	NA
M8158-P(0)	10/29/14	SG	NA
M8163-P(0)	10/29/14	SG	NA
M8164-P(0)	10/29/14	SG	NA
M8165-P(0)	10/29/14	SG	NA
M8166-P(0)	10/29/14	SG	NA
M8166DUP-P(0)	10/29/14	SG	NA
M8347-P(0)	10/29/14	SG	NA
M8348-P(0)	10/29/14	SG	NA
M8355-P(0)	10/29/14	SG	NA
M8358-P(0)	10/29/14	SG	NA
M8359-P(0)	10/29/14	SG	NA
M8365-P(0)	10/29/14	SG	NA
M8365MS-P(0)	10/29/14	SG	NA
M8365MSD-P(0)	10/29/14	SG	NA
M8371-P(0)	10/29/14	SG	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT CLEANUP FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
M8372-P(0)	10/29/14	SG	NA
M8373-P(0)	10/29/14	SG	NA
M8383-P(0)	10/29/14	SG	NA
M8384-P(0)	10/29/14	SG	NA
M8385-P(0)	10/29/14	SG	NA
M8386-P(0)	10/29/14	SG	NA
M8403-P(0)	10/29/14	SG	NA

Cleanup:

Copper Cleanup

Reagents:

Name	Expires	Lot No	Procedure
Copper, granular, 10-40 mesh	10/22/19	MKBT0084V	NA
Activated Copper	10/29/14	MKBT0084V	Activated according to Cleanup SOP (5-328)

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
CD582PB-P(0)	10/29/14	SG	NA
CD583LCS-P(0)	10/29/14	SG	NA
M8156-P(0)	10/29/14	SG	NA
M8158-P(0)	10/29/14	SG	NA
M8163-P(0)	10/29/14	SG	NA
M8164-P(0)	10/29/14	SG	NA
M8165-P(0)	10/29/14	SG	NA
M8166-P(0)	10/29/14	SG	NA
M8166DUP-P(0)	10/29/14	SG	NA
M8347-P(0)	10/29/14	SG	NA
M8348-P(0)	10/29/14	SG	NA
M8355-P(0)	10/29/14	SG	NA
M8358-P(0)	10/29/14	SG	NA
M8359-P(0)	10/29/14	SG	NA
M8365-P(0)	10/29/14	SG	NA
M8365MS-P(0)	10/29/14	SG	NA
M8365MSD-P(0)	10/29/14	SG	NA

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
M8371-P(0)	10/29/14	SG	NA
M8372-P(0)	10/29/14	SG	NA
M8373-P(0)	10/29/14	SG	NA
M8383-P(0)	10/29/14	SG	NA
M8384-P(0)	10/29/14	SG	NA
M8385-P(0)	10/29/14	SG	NA
M8386-P(0)	10/29/14	SG	NA
M8403-P(0)	10/29/14	SG	NA

Column Diameter: 13 mm **Procedure Comment:**

Elution Volume: 15 mL

Solvents

Name	Lot No
Hexane	0000078260

Reagents

Weight g	Name	Expires	Lot No	Procedure
1.00	Florisil	10/29/14	801139- 1991484	Baked at 110 °C for more than 24 hours (SPE columns not baked)

Fractions

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CD582PB-P	0	--	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
CD583LCS-P	0	--	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8156-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8156-P	2	--	10/30/2014 10:38:00 AM	M8156-P	0	1000	950	1.053	1.053	10/30/14 SG
M8156-P-D	3	C	10/30/2014 10:38:00 AM	M8156-P	0	1000	50	20.000	20.000	10/30/14 SG
M8156-P-D	4	--	10/30/2014 10:52:00 AM	M8156-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8156-P-D	5	--	10/30/2014 10:52:00 AM	M8156-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8158-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8158-P	2	--	10/30/2014 10:38:00 AM	M8158-P	0	1000	950	1.053	1.053	10/30/14 SG
M8158-P-D	3	C	10/30/2014 10:38:00 AM	M8158-P	0	1000	50	20.000	20.000	10/30/14 SG
M8158-P-D	4	--	10/30/2014 10:52:00 AM	M8158-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8158-P-D	5	--	10/30/2014 10:52:00 AM	M8158-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8163-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8163-P	2	--	10/30/2014 10:38:00 AM	M8163-P	0	1000	950	1.053	1.053	10/30/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8163-P-D	3	C	10/30/2014 10:38:00 AM	M8163-P	0	1000	50	20.000	20.000	10/30/14 SG
M8163-P-D	4	--	10/30/2014 10:52:00 AM	M8163-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8163-P-D	5	--	10/30/2014 10:52:00 AM	M8163-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8164-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8164-P	2	--	10/30/2014 10:38:00 AM	M8164-P	0	1000	950	1.053	1.053	10/30/14 SG
M8164-P-D	3	C	10/30/2014 10:38:00 AM	M8164-P	0	1000	50	20.000	20.000	10/30/14 SG
M8164-P-D	4	--	10/30/2014 10:52:00 AM	M8164-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8164-P-D	5	--	10/30/2014 10:52:00 AM	M8164-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8165-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8165-P	2	--	10/30/2014 10:38:00 AM	M8165-P	0	1000	950	1.053	1.053	10/30/14 SG
M8165-P-D	3	C	10/30/2014 10:38:00 AM	M8165-P	0	1000	50	20.000	20.000	10/30/14 SG
M8165-P-D	4	--	10/30/2014 10:52:00 AM	M8165-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8165-P-D	5	--	10/30/2014 10:52:00 AM	M8165-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8166-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8166-P	2	--	10/30/2014 10:38:00 AM	M8166-P	0	1000	950	1.053	1.053	10/30/14 SG
M8166-P-D	3	C	10/30/2014 10:38:00 AM	M8166-P	0	1000	50	20.000	20.000	10/30/14 SG
M8166-P-D	4	--	10/30/2014 10:52:00 AM	M8166-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8166-P-D	5	--	10/30/2014 10:52:00 AM	M8166-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8166DUP-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8166DUP-P	2	--	10/30/2014 10:38:00 AM	M8166DUP-P	0	1000	950	1.053	1.053	10/30/14 SG
M8166DUP-P-D	3	C	10/30/2014 10:38:00 AM	M8166DUP-P	0	1000	50	20.000	20.000	10/30/14 SG
M8166DUP-P-D	4	--	10/30/2014 10:52:00 AM	M8166DUP-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8166DUP-P-D	5	--	10/30/2014 10:52:00 AM	M8166DUP-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8347-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8347-P	2	--	10/30/2014 10:38:00 AM	M8347-P	0	1000	950	1.053	1.053	10/30/14 SG
M8347-P-D	3	C	10/30/2014 10:38:00 AM	M8347-P	0	1000	50	20.000	20.000	10/30/14 SG
M8347-P-D	4	--	10/30/2014 10:52:00 AM	M8347-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8347-P-D	5	--	10/30/2014 10:52:00 AM	M8347-P-D	3	1000	50	20.000	400.000	10/30/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8348-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8348-P	2	--	10/30/2014 10:38:00 AM	M8348-P	0	1000	950	1.053	1.053	10/30/14 SG
M8348-P-D	3	C	10/30/2014 10:38:00 AM	M8348-P	0	1000	50	20.000	20.000	10/30/14 SG
M8348-P-D	4	--	10/30/2014 10:52:00 AM	M8348-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8348-P-D	5	--	10/30/2014 10:52:00 AM	M8348-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8355-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8355-P	2	--	10/30/2014 10:38:00 AM	M8355-P	0	1000	950	1.053	1.053	10/30/14 SG
M8355-P-D	3	C	10/30/2014 10:38:00 AM	M8355-P	0	1000	50	20.000	20.000	10/30/14 SG
M8355-P-D	4	--	10/30/2014 10:52:00 AM	M8355-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8355-P-D	5	--	10/30/2014 10:52:00 AM	M8355-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8358-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8358-P	2	--	10/30/2014 10:38:00 AM	M8358-P	0	1000	950	1.053	1.053	10/30/14 SG
M8358-P-D	3	C	10/30/2014 10:38:00 AM	M8358-P	0	1000	50	20.000	20.000	10/30/14 SG
M8358-P-D	4	--	10/30/2014 10:52:00 AM	M8358-P-D	3	1000	950	1.053	21.053	10/30/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8358-P-D	5	--	10/30/2014 10:52:00 AM	M8358-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8359-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8359-P	2	--	10/30/2014 10:38:00 AM	M8359-P	0	1000	950	1.053	1.053	10/30/14 SG
M8359-P-D	3	C	10/30/2014 10:38:00 AM	M8359-P	0	1000	50	20.000	20.000	10/30/14 SG
M8359-P-D	4	--	10/30/2014 10:52:00 AM	M8359-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8359-P-D	5	--	10/30/2014 10:52:00 AM	M8359-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8365-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8365-P	2	--	10/30/2014 10:38:00 AM	M8365-P	0	1000	950	1.053	1.053	10/30/14 SG
M8365-P-D	3	C	10/30/2014 10:38:00 AM	M8365-P	0	1000	50	20.000	20.000	10/30/14 SG
M8365-P-D	4	--	10/30/2014 10:52:00 AM	M8365-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8365-P-D	5	--	10/30/2014 10:52:00 AM	M8365-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8365MS-P	0	--	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8365MSD-P	0	--	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8371-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8371-P	2	--	10/30/2014 10:38:00 AM	M8371-P	0	1000	950	1.053	1.053	10/30/14 SG
M8371-P-D	3	C	10/30/2014 10:38:00 AM	M8371-P	0	1000	50	20.000	20.000	10/30/14 SG
M8371-P-D	4	--	10/30/2014 10:52:00 AM	M8371-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8371-P-D	5	--	10/30/2014 10:52:00 AM	M8371-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8372-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8372-P	2	--	10/30/2014 10:38:00 AM	M8372-P	0	1000	950	1.053	1.053	10/30/14 SG
M8372-P-D	3	C	10/30/2014 10:38:00 AM	M8372-P	0	1000	50	20.000	20.000	10/30/14 SG
M8372-P-D	4	--	10/30/2014 10:52:00 AM	M8372-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8372-P-D	5	--	10/30/2014 10:52:00 AM	M8372-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8373-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8373-P	2	--	10/30/2014 10:38:00 AM	M8373-P	0	1000	950	1.053	1.053	10/30/14 SG
M8373-P-D	3	C	10/30/2014 10:38:00 AM	M8373-P	0	1000	50	20.000	20.000	10/30/14 SG
M8373-P-D	4	--	10/30/2014 10:52:00 AM	M8373-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8373-P-D	5	--	10/30/2014 10:52:00 AM	M8373-P-D	3	1000	50	20.000	400.000	10/30/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8383-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8383-P	2	--	10/30/2014 10:38:00 AM	M8383-P	0	1000	950	1.053	1.053	10/30/14 SG
M8383-P-D	3	C	10/30/2014 10:38:00 AM	M8383-P	0	1000	50	20.000	20.000	10/30/14 SG
M8383-P-D	4	--	10/30/2014 10:52:00 AM	M8383-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8383-P-D	5	--	10/30/2014 10:52:00 AM	M8383-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8384-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8384-P	2	--	10/30/2014 10:38:00 AM	M8384-P	0	1000	950	1.053	1.053	10/30/14 SG
M8384-P-D	3	C	10/30/2014 10:38:00 AM	M8384-P	0	1000	50	20.000	20.000	10/30/14 SG
M8384-P-D	4	--	10/30/2014 10:52:00 AM	M8384-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8384-P-D	5	--	10/30/2014 10:52:00 AM	M8384-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8385-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8385-P	2	--	10/30/2014 10:38:00 AM	M8385-P	0	1000	950	1.053	1.053	10/30/14 SG
M8385-P-D	3	C	10/30/2014 10:38:00 AM	M8385-P	0	1000	50	20.000	20.000	10/30/14 SG
M8385-P-D	4	--	10/30/2014 10:52:00 AM	M8385-P-D	3	1000	950	1.053	21.053	10/30/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8385-P-D	5	--	10/30/2014 10:52:00 AM	M8385-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8386-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8386-P	2	--	10/30/2014 10:38:00 AM	M8386-P	0	1000	950	1.053	1.053	10/30/14 SG
M8386-P-D	3	C	10/30/2014 10:38:00 AM	M8386-P	0	1000	50	20.000	20.000	10/30/14 SG
M8386-P-D	4	--	10/30/2014 10:52:00 AM	M8386-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8386-P-D	5	--	10/30/2014 10:52:00 AM	M8386-P-D	3	1000	50	20.000	400.000	10/30/14 SG
M8403-P	0	C	10/27/2014 10:28:00 AM	NA		NA	NA	1.000	1.000	10/27/14 KAW
M8403-P	2	--	10/30/2014 10:38:00 AM	M8403-P	0	1000	950	1.053	1.053	10/30/14 SG
M8403-P-D	3	C	10/30/2014 10:38:00 AM	M8403-P	0	1000	50	20.000	20.000	10/30/14 SG
M8403-P-D	4	--	10/30/2014 10:52:00 AM	M8403-P-D	3	1000	950	1.053	21.053	10/30/14 SG
M8403-P-D	5	--	10/30/2014 10:52:00 AM	M8403-P-D	3	1000	50	20.000	400.000	10/30/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
CD582PB-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
CD583LCS-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8156-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8156-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8156-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8158-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8158-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8158-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8163-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8163-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8163-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8164-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8164-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8164-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8165-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8165-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8165-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8166-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8166-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
M8166-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8166DUP-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8166DUP-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8166DUP-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8347-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8347-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8347-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8348-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8348-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8348-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8355-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8355-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8355-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8358-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8358-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8358-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8359-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8359-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8359-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
M8365-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8365-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8365-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8365MS-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8365MSD-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8371-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8371-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8371-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8372-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8372-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8372-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8373-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8373-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8373-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8383-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8383-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8383-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8384-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8384-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8384-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8385-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8385-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8385-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8386-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8386-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8386-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT
M8403-P(0)	900	100	IE11	100	3	1000	1.000	10/30/14 SG	DBT
M8403-P-D(3)	905	95	IE11	100	3	1000	20.000	10/30/14 SG	DBT
M8403-P-D(5)	905	95	IE11	100	3	1000	400.000	10/30/14 SG	DBT

Syringes/Pipettes Used:

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
SAMPLE SPECIFIC COMMENTS**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Comment:	Date/Initials:
CD582PB-P	NA	NA
CD583LCS-P	NA	NA
M8156-P	NA	NA
M8158-P	NA	NA
M8163-P	NA	NA
M8164-P	NA	NA
M8165-P	NA	NA
M8166-P	NA	NA
M8166DUP-P	NA	NA
M8347-P	NA	NA
M8348-P	NA	NA
M8355-P	NA	NA
M8358-P	NA	NA
M8359-P	NA	NA
M8365-P	NA	NA
M8365MS-P	NA	NA
M8365MSD-P	NA	NA
M8371-P	NA	NA
M8372-P	NA	NA
M8373-P	NA	NA
M8383-P	NA	NA
M8384-P	NA	NA
M8385-P	NA	NA
M8386-P	NA	NA
M8403-P	NA	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Purpose: GC/ECD TRANSFER	Last Activity: Prep->Inst
Relinquished On/By: Oct 30 2014 3:00PM SG	Received On/By: Oct 30 2014 3:00PM RR
Relinquished From:	Received Location: GC Laboratory: NA
Relinquish Comment: NA	Received Comment: NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CD582PB-P(0)	1000	1	Intact	NA
2	CD583LCS-P(0)	1000	1	Intact	NA
3	M8156-P(2)	1000	1.053	Intact	NA
4	M8156-P-D(4)	1000	21.053	Intact	NA
5	M8156-P-D(5)	1000	400	Intact	NA
6	M8158-P(2)	1000	1.053	Intact	NA
7	M8158-P-D(4)	1000	21.053	Intact	NA
8	M8158-P-D(5)	1000	400	Intact	NA
9	M8163-P(2)	1000	1.053	Intact	NA
10	M8163-P-D(4)	1000	21.053	Intact	NA
11	M8163-P-D(5)	1000	400	Intact	NA
12	M8164-P(2)	1000	1.053	Intact	NA
13	M8164-P-D(4)	1000	21.053	Intact	NA
14	M8164-P-D(5)	1000	400	Intact	NA
15	M8165-P(2)	1000	1.053	Intact	NA
16	M8165-P-D(4)	1000	21.053	Intact	NA
17	M8165-P-D(5)	1000	400	Intact	NA
18	M8166-P(2)	1000	1.053	Intact	NA
19	M8166-P-D(4)	1000	21.053	Intact	NA
20	M8166-P-D(5)	1000	400	Intact	NA
21	M8166DUP-P(2)	1000	1.053	Intact	NA
22	M8166DUP-P-D(4)	1000	21.053	Intact	NA
23	M8166DUP-P-D(5)	1000	400	Intact	NA
24	M8347-P(2)	1000	1.053	Intact	NA
25	M8347-P-D(4)	1000	21.053	Intact	NA
26	M8347-P-D(5)	1000	400	Intact	NA
27	M8348-P(2)	1000	1.053	Intact	NA
28	M8348-P-D(4)	1000	21.053	Intact	NA



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

29	M8348-P-D(5)	1000	400	Intact	NA
30	M8355-P(2)	1000	1.053	Intact	NA
31	M8355-P-D(4)	1000	21.053	Intact	NA
32	M8355-P-D(5)	1000	400	Intact	NA
33	M8358-P(2)	1000	1.053	Intact	NA
34	M8358-P-D(4)	1000	21.053	Intact	NA
35	M8358-P-D(5)	1000	400	Intact	NA
36	M8359-P(2)	1000	1.053	Intact	NA
37	M8359-P-D(4)	1000	21.053	Intact	NA
38	M8359-P-D(5)	1000	400	Intact	NA
39	M8365-P(2)	1000	1.053	Intact	NA
40	M8365-P-D(4)	1000	21.053	Intact	NA
41	M8365-P-D(5)	1000	400	Intact	NA
42	M8365MS-P(0)	1000	1	Intact	NA
43	M8365MSD-P(0)	1000	1	Intact	NA
44	M8371-P(2)	1000	1.053	Intact	NA
45	M8371-P-D(4)	1000	21.053	Intact	NA
46	M8371-P-D(5)	1000	400	Intact	NA
47	M8372-P(2)	1000	1.053	Intact	NA
48	M8372-P-D(4)	1000	21.053	Intact	NA
49	M8372-P-D(5)	1000	400	Intact	NA
50	M8373-P(2)	1000	1.053	Intact	NA
51	M8373-P-D(4)	1000	21.053	Intact	NA
52	M8373-P-D(5)	1000	400	Intact	NA
53	M8383-P(2)	1000	1.053	Intact	NA
54	M8383-P-D(4)	1000	21.053	Intact	NA
55	M8383-P-D(5)	1000	400	Intact	NA
56	M8384-P(2)	1000	1.053	Intact	NA
57	M8384-P-D(4)	1000	21.053	Intact	NA
58	M8384-P-D(5)	1000	400	Intact	NA
59	M8385-P(2)	1000	1.053	Intact	NA
60	M8385-P-D(4)	1000	21.053	Intact	NA
61	M8385-P-D(5)	1000	400	Intact	NA
62	M8386-P(2)	1000	1.053	Intact	NA
63	M8386-P-D(4)	1000	21.053	Intact	NA
64	M8386-P-D(5)	1000	400	Intact	NA
65	M8403-P(2)	1000	1.053	Intact	NA
66	M8403-P-D(4)	1000	21.053	Intact	NA

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

67	M8403-P-D(5)	1000	400	Intact	NA
Total Extracts:		67			

**BATTELLE - DUXBURY OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0494

USACE-NAE New Bedford Harbor LTM Study

SED

Entered By:

On:

Task Leader Approval:

On:

Supervisor Approval:

On:

PM Approval:

On:

INJECTION LOG

Directory I:\M\DATA\SM0417\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7203.D	HEXANE		10-20-2014 05:18 PM
2	2	M7204.D	HF94		10-20-2014 06:02 PM
3	3	M7205.D	IE03		10-20-2014 06:46 PM
4	4	M7206.D	IE04	Level not used.	10-20-2014 07:31 PM
5	5	M7207.D	IE05		10-20-2014 08:16 PM
6	6	M7208.D	IE06	RR 11/18/14	10-20-2014 09:00 PM
7	7	M7209.D	IE07		10-20-2014 09:45 PM
8	8	M7210.D	IE08		10-20-2014 10:29 PM
9	9	M7211.D	IE09	Level not used.	10-20-2014 11:14 PM
10	10	M7212.D	IE10		10-20-2014 11:58 PM
11	11	M7213.D	HY06 ICC		10-21-2014 12:43 AM
12	12	M7214.D	HF94		10-21-2014 01:28 AM
13	13	M7215.D	IE08 mid		10-21-2014 02:12 AM
14	14	M7216.D	CD598PB-P(3)	Procedural Blank 5-128 14	10-21-2014 02:57 AM
15	15	M7217.D	CD599LCS-P(5)	Laboratory Control Sample	10-21-2014 03:42 AM
16	16	M7218.D	CD600SRM-P(5)	Standard Reference Materi	10-21-2014 04:26 AM
17	17	M7219.D	M7754-P(5)	B537PreMnA 5-128 14-0498	10-21-2014 05:11 AM
18	18	M7220.D	M7755-P(5)	B537PreMnB 5-128 14-0498	10-21-2014 05:55 AM
19	19	M7221.D	M7756-P(5)	B537PreMnC 5-128 14-0498	10-21-2014 06:40 AM
20	20	M7222.D	M7756MS-P(5)	Matrix Spike of B537PreMn	10-21-2014 07:25 AM
21	21	M7223.D	M7756MSD-P(5)	Matrix Spike Duplicate of	10-21-2014 08:09 AM
22	22	M7224.D	M7757-P(5)	B537R01MnA 5-128 14-0498	10-21-2014 08:54 AM
23	23	M7225.D	M7758-P(5)	B537R01MnB 5-128 14-0498	10-21-2014 09:38 AM
24	24	M7226.D	HF94		10-21-2014 10:22 AM
25	25	M7227.D	IE08 mid		10-21-2014 11:07 AM
26	26	M7228.D	M7759-P(5)	B537R01MnC 5-128 14-0498	10-21-2014 11:52 AM
27	27	M7229.D	M7760-P(5)	B537R01MnD 5-128 14-0498	10-21-2014 12:36 PM
28	28	M7230.D	M7761-P(5)	B537R01MnE 5-128 14-0498	10-21-2014 01:21 PM
29	29	M7231.D	M7762-P(5)	B537S01MnA 5-128 14-0498	10-21-2014 02:05 PM
30	30	M7232.D	M7763-P(5)	B537S01MnB 5-128 14-0498	10-21-2014 02:50 PM
31	31	M7233.D	M7764-P(5)	B537S01MnC 5-128 14-0498	10-21-2014 03:35 PM
32	32	M7234.D	M7765-P(5)	B537S01MnD 5-128 14-0498	10-21-2014 04:19 PM
33	33	M7235.D	M7766-P(5)	B537S01MnE 5-128 14-0498	10-21-2014 05:04 PM
34	34	M7236.D	M7767-P(5)	B537S02MnA 5-128 14-0498	10-21-2014 05:48 PM
35	35	M7237.D	M7768-P(5)	B537S02MnB 5-128 14-0498	10-21-2014 06:33 PM
36	36	M7238.D	HF94		10-21-2014 07:17 PM
37	37	M7239.D	IE07 mid		10-21-2014 08:02 PM
38	38	M7240.D	M7768DUP-P(5)	Lab Duplicate of B537S02M	10-21-2014 08:46 PM
39	39	M7241.D	M7769-P(5)	B537S02MnC 5-128 14-0498	10-21-2014 09:31 PM
40	40	M7242.D	M7770-P(5)	B537S02MnD 5-128 14-0498	10-21-2014 10:16 PM
41	41	M7243.D	M7771-P(5)	B537S02MnE 5-128 14-0498	10-21-2014 11:00 PM
42	42	M7244.D	CD669PB-P(0)	Procedural Blank 5-128 14	10-21-2014 11:45 PM
43	43	M7245.D	CD670LCS-P(0)	Laboratory Control Sample	10-22-2014 12:29 AM
44	44	M7246.D	CD671LCS-D-P(0)	Laboratory Control Sample	10-22-2014 01:14 AM
45	45	M7247.D	M8926-P(0)	FLD20141014OSHCO-7-14-7E	10-22-2014 01:58 AM
46	46	M7248.D	M8928-P(0)	FSW20141014OSHCO-7-14-1 5	10-22-2014 02:43 AM
47	47	M7249.D	HF94		10-22-2014 03:28 AM
48	48	M7250.D	IE07 mid		10-22-2014 04:12 AM

INJECTION LOG

Directory I:\M\DATA\SM0420\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7342.D	HEXANE		10-30-2014 04:15 PM
2	2	M7343.D	HF94		10-30-2014 05:00 PM
3	3	M7344.D	IE07		10-30-2014 05:44 PM
4	4	M7345.D	CD718PB-P(3)		10-30-2014 06:29 PM
5	5	M7346.D	CD719LCS-P(5)		10-30-2014 07:13 PM
6	6	M7347.D	CD720LCSD-P(5)		10-30-2014 07:58 PM
7	7	M7348.D	CD721LCS-P(5)		10-30-2014 08:42 PM
8	8	M7349.D	CD722LCS-P(5)		10-30-2014 09:27 PM
9	9	M7350.D	CD723LCS-P(5)		10-30-2014 10:11 PM
10	10	M7351.D	M8474-P(5)		10-30-2014 10:55 PM
11	11	M7352.D	M8476-P(5)		10-30-2014 11:40 PM
12	12	M7353.D	M8478-P(5)		10-31-2014 12:24 AM
13	13	M7354.D	HF94		10-31-2014 01:09 AM
14	14	M7355.D	IE08		10-31-2014 01:53 AM
15	15	M7356.D	CK-669(1) DCM		10-31-2014 02:38 AM
16	16	M7357.D	CK-689(2) DCM		10-31-2014 03:22 AM
17	17	M7358.D	CK-672(1) DCM		10-31-2014 04:07 AM
18	18	M7359.D	CK-672(2) DCM		10-31-2014 04:51 AM
19	19	M7360.D	CK-667(1) HEX		10-31-2014 05:36 AM
20	20	M7361.D	CK-661(1) HEX		10-31-2014 06:20 AM
21	21	M7362.D	CK-661(1) HEX		10-31-2014 07:05 AM
22	22	M7363.D	CK-661(2) HEX		10-31-2014 07:49 AM
23	1	M7364.D	IE07 mid		10-31-2014 10:49 AM
24	2	M7365.D	M8402-P-D(7)	NBH14-0161 5-128 14-0493	10-31-2014 11:34 AM
25	3	M7366.D	IE08 mid		10-31-2014 12:18 PM
26	4	M7367.D	CD582PB-P(0)	Procedural Blank 5-128 14	10-31-2014 01:03 PM
27	5	M7368.D	CD583LCS-P(0)	Laboratory Control Sample	10-31-2014 01:47 PM
28	6	M7369.D	M8156-P(2)	NBH14-0017 5-128 14-0494	10-31-2014 02:32 PM
29	7	M7370.D	M8158-P(2)	NBH14-0025 5-128 14-0494	10-31-2014 03:17 PM
30	8	M7371.D	M8163-P(2)	NBH14-0045 5-128 14-0494	10-31-2014 04:01 PM
31	9	M7372.D	M8164-P(2)	NBH14-0049 5-128 14-0494	10-31-2014 04:45 PM
32	10	M7373.D	M8165-P(2)	NBH14-0053 5-128 14-0494	10-31-2014 05:30 PM
33	11	M7374.D	M8166-P(2)	NBH14-0061 5-128 14-0494	10-31-2014 06:14 PM
34	12	M7375.D	M8166DUP-P(2)	Lab Duplicate of NBH14-00	10-31-2014 06:59 PM
35	13	M7376.D	M8347-P(2)	NBH14-0057 5-128 14-0494	10-31-2014 07:43 PM
36	14	M7377.D	IE07mid		10-31-2014 08:28 PM
37	15	M7378.D	M8348-P(2)	NBH14-0069 5-128 14-0494	10-31-2014 09:12 PM
38	16	M7379.D	M8355-P(2)	NBH14-0203 5-128 14-0494	10-31-2014 09:57 PM
39	17	M7380.D	M8358-P(2)	NBH14-0215 5-128 14-0494	10-31-2014 10:41 PM
40	18	M7381.D	M8359-P(2)	NBH14-0219 5-128 14-0494	10-31-2014 11:26 PM
41	19	M7382.D	M8365-P(2)	NBH14-0234 5-128 14-0494	11-1-2014 12:10 AM
42	20	M7383.D	M8365MS-P(0)	Matrix Spike of NBH14-023	11-1-2014 12:55 AM
43	21	M7384.D	M8365MSD-P(0)	Matrix Spike Duplicate of	11-1-2014 01:39 AM
44	22	M7385.D	M8371-P(2)	NBH14-0257 5-128 14-0494	11-1-2014 02:24 AM
45	23	M7386.D	M8372-P(2)	NBH14-0261 5-128 14-0494	11-1-2014 03:08 AM
46	24	M7387.D	M8373-P(2)	NBH14-0265 5-128 14-0494	11-1-2014 03:53 AM
47	25	M7388.D	IE08 mid		11-1-2014 04:37 AM
48	26	M7389.D	M8383-P(2)	NBH14-0314 5-128 14-0494	11-1-2014 05:22 AM
49	27	M7390.D	M8384-P(2)	NBH14-0318 5-128 14-0494	11-1-2014 06:06 AM
50	28	M7391.D	M8385-P(2)	NBH14-0322 5-128 14-0494	11-1-2014 06:50 AM
51	29	M7392.D	M8386-P(2)	NBH14-0326 5-128 14-0494	11-1-2014 07:35 AM
52	30	M7393.D	M8403-P(2)	NBH14-0165 5-128 14-0494	11-1-2014 08:19 AM
53	31	M7394.D	M8156-P-D(4)	NBH14-0017 5-128 14-0494	11-1-2014 09:04 AM
54	32	M7395.D	M8158-P-D(4)	NBH14-0025 5-128 14-0494	11-1-2014 09:48 AM
55	33	M7396.D	M8163-P-D(4)	NBH14-0045 5-128 14-0494	11-1-2014 10:33 AM
56	34	M7397.D	M8164-P-D(4)	NBH14-0049 5-128 14-0494	11-1-2014 11:17 AM
57	35	M7398.D	M8165-P-D(4)	NBH14-0053 5-128 14-0494	11-1-2014 12:02 PM
58	36	M7399.D	IE07 mid		11-1-2014 12:47 PM
59	37	M7400.D	M8166-P-D(4)	NBH14-0061 5-128 14-0494	11-1-2014 01:31 PM
60	38	M7401.D	M8166DUP-P-D(4)	Lab Duplicate of NBH14-00	11-1-2014 02:16 PM
61	39	M7402.D	M8347-P-D(4)	NBH14-0057 5-128 14-0494	11-1-2014 03:00 PM

E-397

INJECTION LOG

Directory I:\M\DATA\SM0420\

Lin	BTL	File	Sample Id	Miscellaneous	Injected
62	40	M7403.D	M8348-P-D(4)	(1) NBH14-0069 5-128 14-0494	11-1-2014 03:44 PM
63	41	M7404.D	M8355-P-D(4)	NBH14-0203 5-128 14-0494	11-1-2014 04:29 PM
64	42	M7405.D	M8358-P-D(4)	NBH14-0215 5-128 14-0494	11-1-2014 05:13 PM
65	43	M7406.D	M8359-P-D(4)	NBH14-0219 5-128 14-0494	11-1-2014 05:58 PM
66	44	M7407.D	M8365-P-D(4)	(1) NBH14-0234 5-128 14-0494	11-1-2014 06:42 PM
67	45	M7408.D	M8371-P-D(4)	(1) NBH14-0257 5-128 14-0494	11-1-2014 07:27 PM
68	46	M7409.D	M8372-P-D(4)	NBH14-0261 5-128 14-0494	11-1-2014 08:11 PM
69	47	M7410.D	IE08 mid		11-1-2014 08:56 PM
70	48	M7411.D	M8373-P-D(4)	NBH14-0265 5-128 14-0494	11-1-2014 09:40 PM
71	49	M7412.D	M8383-P-D(4)	NBH14-0314 5-128 14-0494	11-1-2014 10:25 PM
72	50	M7413.D	M8384-P-D(4)	NBH14-0318 5-128 14-0494	11-1-2014 11:09 PM
73	51	M7414.D	M8385-P-D(4)	NBH14-0322 5-128 14-0494	11-1-2014 11:54 PM
74	52	M7415.D	M8386-P-D(4)	NBH14-0326 5-128 14-0494	11-2-2014 12:38 AM
75	53	M7416.D	M8403-P-D(4)	(1) NBH14-0165 5-128 14-0494	11-2-2014 01:23 AM
76	54	M7417.D	M8156-P-D(5)	NBH14-0017 5-128 14-0494	11-2-2014 02:07 AM
77	55	M7418.D	M8158-P-D(5)	NBH14-0025 5-128 14-0494	11-2-2014 02:52 AM
78	56	M7419.D	M8163-P-D(5)	NBH14-0045 5-128 14-0494	11-2-2014 03:37 AM
79	57	M7420.D	M8164-P-D(5)	NBH14-0049 5-128 14-0494	11-2-2014 04:22 AM
80	58	M7421.D	IE07 mid		11-2-2014 05:07 AM
81	59	M7422.D	M8165-P-D(5)	(1) NBH14-0053 5-128 14-0494	11-2-2014 05:52 AM
82	60	M7423.D	M8166-P-D(5)	NBH14-0061 5-128 14-0494	11-2-2014 06:36 AM
83	61	M7424.D	M8166DUP-P-D(5)	Lab Duplicate of NBH14-00	11-2-2014 07:21 AM
84	62	M7425.D	M8347-P-D(5)	NBH14-0057 5-128 14-0494	11-2-2014 08:06 AM
85	63	M7426.D	M8348-P-D(5)	NBH14-0069 5-128 14-0494	11-2-2014 08:51 AM
86	64	M7427.D	M8355-P-D(5)	NBH14-0203 5-128 14-0494	11-2-2014 09:36 AM
87	65	M7428.D	M8358-P-D(5)	(1) NBH14-0215 5-128 14-0494	11-2-2014 10:21 AM
88	66	M7429.D	M8359-P-D(5)	NBH14-0219 5-128 14-0494	11-2-2014 11:06 AM
89	67	M7430.D	M8365-P-D(5)	NBH14-0234 5-128 14-0494	11-2-2014 11:51 AM
90	68	M7431.D	M8371-P-D(5)	NBH14-0257 5-128 14-0494	11-2-2014 12:35 PM
91	69	M7432.D	IE08 mid		11-2-2014 01:20 PM
92	70	M7433.D	M8372-P-D(5)	(1) NBH14-0261 5-128 14-0494	11-2-2014 02:05 PM
93	71	M7434.D	M8373-P-D(5)	NBH14-0265 5-128 14-0494	11-2-2014 02:50 PM
94	72	M7435.D	M8383-P-D(5)	NBH14-0314 5-128 14-0494	11-2-2014 03:34 PM
95	73	M7436.D	M8384-P-D(5)	NBH14-0318 5-128 14-0494	11-2-2014 04:19 PM
96	74	M7437.D	M8385-P-D(5)	NBH14-0322 5-128 14-0494	11-2-2014 05:04 PM
97	75	M7438.D	M8386-P-D(5)	NBH14-0326 5-128 14-0494	11-2-2014 05:49 PM
98	76	M7439.D	M8403-P-D(5)	NBH14-0165 5-128 14-0494	11-2-2014 06:34 PM
99	77	M7440.D	IE07 mid		11-2-2014 07:19 PM

(1) Dilutions not needed.

RR 11/19/14

Calibration Response Factor Report

Batch: 14-0494 **Project Test Code:** Master 128(S) RFs validated CRD 12/9/2014
Data Set: DP-14-0676 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Type:	Column:	MAD:	1 IE03 M7205.D	2 IE05 M7207.D	3 IE06 M7208.D	4 IE07 M7209.D	5 IE08 M7210.D	6 IE10 M7212.D	7	8	Levels:	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl2(8)	1	Y	1.02677	0.82499	0.74685	0.63118	0.55904	0.41512	-	-	6	Q	-0.05406	0.58100	0.02367	0.99968		
3	Cl3(18)	1	Y	1.31210	1.10482	0.96661	0.78724	0.69070	0.50395	-	-	6	Q	-0.06844	0.71262	0.03558	0.99947		
4	Cl3(34)	s	1	Y	2.47273	1.36117	1.18217	1.03139	0.92191	0.71999	-	-	6	Q	-0.06938	0.92761	0.04587	0.99994	
5	Cl3(28)	1	Y	1.88563	1.62148	1.53903	1.39969	1.26450	1.01381	-	-	6	Q	-0.09842	1.31978	0.03237	0.99986		
6	Cl4(52)	1	Y	2.67460	1.50893	1.27188	1.06050	0.93014	0.70933	-	-	6	Q	-0.07364	0.92696	0.05816	0.99983		
7	Cl4(44)	1	Y	1.96878	1.69047	1.60648	1.42175	1.25645	1.00372	-	-	6	Q	-0.09818	1.30598	0.04163	0.99973		
8	Cl4(66)	1	Y	2.14003	1.91334	1.75148	1.60565	1.43266	1.15511	-	-	6	Q	-0.10876	1.49082	0.04098	0.99982		
9	Cl5(101)	1	Y	1.87327	1.59373	1.70864	1.61385	1.42978	1.22422	-	-	6	Q	-0.08750	1.49635	0.02623	0.99975		
10	Cl6(161)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Cl6(152)	s	1	Y	1.02184	0.73169	0.67623	0.59438	0.54889	0.47996	-	-	6	Q	-0.02339	0.54921	0.01882	0.99992	
12	Cl5(118)	1	Y	1.02402	0.91463	0.85020	0.75415	0.68354	0.58350	-	-	6	Q	-0.03737	0.69686	0.02122	0.99982		
13	Cl6(153)	1	Y	0.88266	0.81935	0.60192	0.77537	0.66030	0.59647	-	-	6	Q	-0.02991	0.69018	0.00733	0.99932		
14	Cl5(105)	1	Y	1.20312	1.04021	0.99965	0.96015	0.82296	0.65909	-	-	6	Q	-0.06789	0.87004	0.02177	0.99963		
15	Cl6(138)	1	Y	1.22541	1.06675	1.00587	0.91669	0.84817	0.76297	-	-	6	Q	-0.03117	0.85646	0.02109	0.99991		
16	Cl7(187)	1	Y	1.07415	0.94434	0.88498	0.79082	0.74346	0.66512	-	-	6	Q	-0.02786	0.74881	0.01846	0.99992		
17	Cl6(128)	1	Y	1.16100	0.91667	0.89359	0.85607	0.84318	0.73247	-	-	6	Q	-0.04270	0.86786	0.00587	0.99999		
18	Cl7(180)	1	Y	1.23170	1.08198	0.99753	0.93689	0.88497	0.82624	-	-	6	Q	-0.02031	0.88592	0.01772	0.99996		
19	Cl7(170)	1	Y	1.33635	1.19973	1.11853	1.05917	1.00487	0.94111	-	-	6	Q	-0.02267	1.00845	0.01743	0.99997		
20	Cl8(195)	1	Y	1.24821	1.10061	1.05076	0.99234	0.94476	0.89153	-	-	6	Q	-0.01887	0.94735	0.01528	0.99997		
21	Cl9(206)	1	Y	1.18038	1.03661	0.99467	0.96457	0.91081	0.85789	-	-	6	Q	-0.02022	0.91869	0.01268	0.99997		
22	Cl10(209)	1	Y	0.99002	0.86426	0.82007	0.78889	0.73849	0.67758	-	-	6	Q	-0.02343	0.74907	0.01198	0.99996		
23	Signal	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Cl2(8)	2	Y	0.94637	0.83650	0.76620	0.67202	0.62199	0.48595	-	-	6	Q	-0.05185	0.64681	0.01712	0.99988		
26	Cl3(18)	2	Y	1.39241	1.13741	1.00550	0.76551	0.70491	0.54182	-	-	6	Q	-0.05533	0.70768	0.03799	0.99943		
27	Cl3(34)	s	2	Y	2.23518	1.39531	1.20146	1.04748	0.98379	0.79730	-	-	6	Q	-0.06315	0.98749	0.03800	0.99996	
28	Cl3(28)	2	Y	2.05612	1.73008	1.59254	1.42520	1.36560	1.12979	-	-	6	Q	-0.08759	1.40224	0.02866	0.99996		
29	Cl4(52)	2	Y	1.32543	1.01634	1.04226	0.82635	0.80598	0.62728	-	-	6	Q	-0.06549	0.83027	0.02172	0.99971		
30	Cl4(44)	2	Y	2.26696	1.68554	1.62828	1.44775	1.40139	1.13801	-	-	6	Q	-0.09853	1.44647	0.02603	0.99996		

Calibration Response Factor Report

Batch: 14-0494 **Project Test Code:** Master 128(S)
Data Set: DP-14-0676 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Column Type:	Column:	MQO:	1 IE03	2 IE05	3 IE06	4 IE07	5 IE08	6 IE10	7	8	Levels:	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
					M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D									
31	Cl4(66)		2	Y	2.28150	1.94181	1.76289	1.65364	1.54066	1.31516	-	-	6	Q	-0.08582	1.58007	0.03256	0.99996	
32	Cl5(101)		2	Y	1.56754	1.17777	1.01633	1.01029	0.86410	0.96534	-	-	6	Q	0.04538	0.80794	0.03732	0.99968	
33	Cl6(161)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	Cl6(152)	s	2	Y	0.69735	0.69234	0.57622	0.54795	0.47409	0.53607	-	-	6	Q	0.02791	0.43955	0.02156	0.99966	
35	Cl5(118)		2	Y	1.37021	0.63622	0.73177	0.70795	0.59017	0.57149	-	-	6	Q	-0.00725	0.58778	0.02195	0.99943	
36	Cl6(153)		2	Y	1.07545	0.86632	0.79677	0.69128	0.63279	0.63321	-	-	6	Q	0.00578	0.60663	0.02539	0.99983	
37	Cl5(105)		2	Y	1.20126	1.01455	0.97857	0.92200	0.88341	0.94009	-	-	6	Q	0.02686	0.84840	0.01736	0.99996	
38	Cl6(138)		2	Y	0.67940	0.66822	0.62305	0.61544	0.61172	0.68345	-	-	6	Q	0.03117	0.58132	0.00625	0.99999	
39	Cl7(187)		2	Y	0.98245	0.80842	0.76633	0.69224	0.65688	0.68482	-	-	6	Q	0.01569	0.62875	0.01795	0.99993	
40	Cl6(128)		2	Y	1.29556	1.08544	1.04052	0.96581	0.92997	0.98492	-	-	6	Q	0.02722	0.89128	0.01958	0.99996	
41	Cl7(180)		2	Y	1.15986	0.95311	0.92022	0.85738	0.83699	0.89707	-	-	6	Q	0.02897	0.79906	0.01566	0.99998	
42	Cl7(170)		2	Y	1.17715	1.00944	0.98379	0.93732	0.91404	0.98260	-	-	6	Q	0.03138	0.87743	0.01381	0.99998	
43	Cl8(195)		2	Y	1.05313	0.90773	0.89676	0.85979	0.84072	0.91395	-	-	6	Q	0.03255	0.80577	0.01137	0.99998	
44	Cl9(206)		2	Y	0.94156	0.80488	0.80171	0.77400	0.75899	0.82033	-	-	6	Q	0.02717	0.73041	0.00888	0.99999	
45	Cl10(209)		2	Y	0.76301	0.64557	0.63678	0.60540	0.58689	0.62005	-	-	6	Q	0.01548	0.56751	0.00888	0.99998	

Calibration Response Factor Report

Batch: 14-0494 **Project Test Code:** Master 128(S)
Data Set: DP-14-0676 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Type:	Column:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
			MQO:	IE03	IE05	IE06	IE07	IE08	IE10	-	-						
				M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D	-	-						

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax^2 + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax^2 + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Calibration Response Factor Report

Batch: 14-0494 **Project Test Code:** Master 128(S) RFS validated CRD 12/9/2014
Data Set: DP-14-0676 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417F.M **Responses Via** Initial Calibration **Last Updated** 12/5/2014 3:22:00 PM **Title:** NBH 101 only to compliment B method
Instrument: Inst_M **Operator:** RR **Path:** I:\M\DATA\MM0417F.M

No:	Analyte:	Type:	Column:	MQO:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
					IE03	IE05	IE06	IE07	IE08	IE10			Levels:					
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl5(101)	Y	1	Y	2.10045	1.55920	1.68988	1.70104	1.46973	1.35619	-	-	6	Q	-0.05296	1.51726	0.02697	0.99964
3	Signal		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Cl5(101)	Y	2	Y	1.67256	2.33575	1.99479	1.98711	2.06595	1.40514	-	-	6	Q	-0.26866	2.27420	-0.02348	0.99966

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax^2 + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax^2 + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Calibration Response Factor Report

Batch: 14-0494 **Project Test Code:** Master 128(S)
Data Set: DP-14-0676 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

Method: I:\M\DATA\MM0417C.M
Title: NBH
Last Update: Fri Nov 14 9:30 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Oct 28 9:02 2014	Oct 28 8:27 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 11:58 PM

Method: I:\M\DATA\MM0417F.M
Title: NBH 101 only to compliment B method
Last Update: Fri Dec 05 15:22 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Dec 05 15:22 2014	Dec 05 15:15 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 11:58 PM

ICC Summary Report

Batch: 14-0494 **Data Set:** DP-14-0676
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project No:** 100053747
Batch: 14-0494 **Matrix:** SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl2(8)		1	Y	0.04000	0.04325	8.3
3	Cl3(18)		1	Y	0.04000	0.04152	3.8
4	Cl3(34)	s	1	Y	0.04000	0.04104	2.5
5	Cl3(28)		1	Y	0.04000	0.04097	2.5
6	Cl4(52)		1	Y	0.04000	0.04111	2.8
7	Cl4(44)		1	Y	0.04000	0.04166	4.3
8	Cl4(66)		1	Y	0.04000	0.04028	0.8
9	Cl5(101)		1	Y	0.04000	0.03706	7.3
10	Cl6(161)	I	1	-			
11	Cl6(152)	s	1	Y	0.04020	0.04329	7.8
12	Cl5(118)		1	Y	0.04000	0.04151	3.8
13	Cl6(153)		1	Y	0.04000	0.03933	1.8
14	Cl5(105)		1	Y	0.04000	0.03777	5.5
15	Cl6(138)		1	Y	0.04000	0.04232	5.8
16	Cl7(187)		1	Y	0.04000	0.04280	7.0
17	Cl6(128)		1	Y	0.04000	0.03934	1.8
18	Cl7(180)		1	Y	0.04000	0.04137	3.5
19	Cl7(170)		1	Y	0.04000	0.04068	1.8
20	Cl8(195)		1	Y	0.04000	0.03988	0.3
21	Cl9(206)		1	Y	0.04000	0.03884	3.0
22	Cl10(209)		1	Y	0.04000	0.03908	2.3
24	Cl5(96)	I	2	-			
25	Cl2(8)		2	Y	0.04000	0.04248	6.3
26	Cl3(18)		2	Y	0.04000	0.03989	0.3
27	Cl3(34)	s	2	Y	0.04000	0.04170	4.3
28	Cl3(28)		2	Y	0.04000	0.04093	2.3
29	Cl4(52)		2	Y	0.04000	0.04057	1.5
30	Cl4(44)		2	Y	0.04000	0.04125	3.3
31	Cl4(66)		2	Y	0.04000	0.04095	2.5
32	Cl5(101)		2	Y	0.04000	0.03828	4.3
33	Cl6(161)	I	2	-			
34	Cl6(152)	s	2	Y	0.04020	0.04128	2.8
35	Cl5(118)		2	Y	0.04000	0.03951	1.3
36	Cl6(153)		2	Y	0.04000	0.04346	8.8
37	Cl5(105)		2	Y	0.04000	0.04078	2.0
38	Cl6(138)		2	Y	0.04000	0.04108	2.8
39	Cl7(187)		2	Y	0.04000	0.04269	6.8
40	Cl6(128)		2	Y	0.04000	0.04136	3.5
41	Cl7(180)		2	Y	0.04000	0.04073	1.8
42	Cl7(170)		2	Y	0.04000	0.04050	1.3
43	Cl8(195)		2	Y	0.04000	0.03956	1.0
44	Cl9(206)		2	Y	0.04000	0.03878	3.0

ICC Summary Report

Batch: 14-0494 Data Set: DP-14-0676
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0494 Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
45	Cl10(209)	2	Y	0.04000	0.03893	2.8	

MQO: Only compounds flagged with "Y" will be counted towards
MQO exceedences.

Mean PD: 3.49
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

ICC Summary Report

Batch: 14-0494 Data Set: DP-14-0676
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0494 Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.04000	0.03858	3.5
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.04000	0.03850	3.8

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: 3.65
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0494 **Data Set:** DP-14-0676
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7377.D		M7399.D		M7421.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						IE07mid 10/31/2014 20:28		IE07 mid 11/01/2014 12:47		IE07 mid 11/02/2014 05:07	
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.04008	0.04138	3.2	0.03922	-2.1	0.03911	-2.4
3	Cl3(18)		1	Y	0.04016	0.04069	1.3	0.03884	-3.3	0.03986	-0.7
4	Cl3(34)	s	1	Y	0.04000	0.04058	1.4	0.03978	-0.5	0.04052	1.3
5	Cl3(28)		1	Y	0.04016	0.04229	5.3	0.04196	4.5	0.04182	4.1
6	Cl4(52)		1	Y	0.04004	0.04084	2.0	0.04045	1.0	0.04104	2.5
7	Cl4(44)		1	Y	0.04016	0.04088	1.8	0.04145	3.2	0.04095	2.0
8	Cl4(66)		1	Y	0.04008	0.04126	2.9	0.04170	4.0	0.04106	2.4
9	Cl5(101)		1	Y	0.04008	0.04011	0.1	0.03956	-1.3	0.03994	-0.3
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.04016	0.04172	3.9	0.04091	1.9	0.04148	3.3
12	Cl5(118)		1	Y	0.04016	0.04055	1.0	0.03989	-0.7	0.04209	4.8
13	Cl6(153)		1	Y	0.04016	0.04089	1.8	0.04152	3.4	0.04183	4.2
14	Cl5(105)		1	Y	0.04012	0.03720	-7.3	0.03738	-6.8	0.03918	-2.3
15	Cl6(138)		1	Y	0.04016	0.04075	1.5	0.04044	0.7	0.03940	-1.9
16	Cl7(187)		1	Y	0.04016	0.04157	3.5	0.04121	2.6	0.04000	-0.4
17	Cl6(128)		1	Y	0.04016	0.03844	-4.3	0.03670	-8.6	0.03840	-4.4
18	Cl7(180)		1	Y	0.04016	0.04032	0.4	0.03983	-0.8	0.03949	-1.7
19	Cl7(170)		1	Y	0.04016	0.04044	0.7	0.03978	-0.9	0.03935	-2.0
20	Cl8(195)		1	Y	0.04016	0.04048	0.8	0.04044	0.7	0.04010	-0.1
21	Cl9(206)		1	Y	0.04008	0.03955	-1.3	0.03990	-0.4	0.03966	-1.0
22	Cl10(209)		1	Y	0.04016	0.03924	-2.3	0.03953	-1.6	0.03942	-1.8
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.04008	0.03978	-0.7	0.03831	-4.4	0.03912	-2.4
26	Cl3(18)		2	Y	0.04016	0.03823	-4.8	0.03969	-1.2	0.03872	-3.6
27	Cl3(34)	s	2	Y	0.04000	0.03996	-0.1	0.03878	-3.0	0.03889	-2.8
28	Cl3(28)		2	Y	0.04016	0.04031	0.4	0.03829	-4.7	0.03834	-4.5
29	Cl4(52)		2	Y	0.04004	0.04222	5.4	0.03878	-3.1	0.03970	-0.8
30	Cl4(44)		2	Y	0.04016	0.03901	-2.9	0.04305	7.2	0.03666	-8.7
31	Cl4(66)		2	Y	0.04008	0.04225	5.4	0.04125	2.9	0.04022	0.3
32	Cl5(101)		2	Y	0.04008	0.03722	-7.1	0.04018	0.2	0.03785	-5.6
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.04016	0.04518	12.5	0.04070	1.3	0.04235	5.5
35	Cl5(118)		2	Y	0.04016	0.03823	-4.8	0.03883	-3.3	0.03650	-9.1
36	Cl6(153)		2	Y	0.04016	0.03831	-4.6	0.03702	-7.8	0.03632	-9.6
37	Cl5(105)		2	Y	0.04012	0.03953	-1.5	0.03877	-3.4	0.03915	-2.4
38	Cl6(138)		2	Y	0.04016	0.04297	7.0	0.04258	6.0	0.04293	6.9
39	Cl7(187)		2	Y	0.04016	0.04049	0.8	0.04106	2.2	0.04061	1.1
40	Cl6(128)		2	Y	0.04016	0.04052	0.9	0.04064	1.2	0.04039	0.6
41	Cl7(180)		2	Y	0.04016	0.04045	0.7	0.04106	2.2	0.04147	3.3
42	Cl7(170)		2	Y	0.04016	0.03963	-1.3	0.04129	2.8	0.04235	5.5
43	Cl8(195)		2	Y	0.04016	0.03948	-1.7	0.04149	3.3	0.04308	7.3
44	Cl9(206)		2	Y	0.04008	0.03878	-3.2	0.04147	3.5	0.04457	11.2

CCV Summary Report

Batch: 14-0494 Data Set: DP-14-0676
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7377.D		M7399.D		M7421.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.04016	0.03878	-3.4	0.04127	2.8	0.04469	11.3
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	2.9	2.9	3.7		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0494 **Data Set:** DP-14-0676
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED

Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7366.D		M7388.D		M7410.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						IE08 mid 10/31/2014 12:18		IE08 mid 11/01/2014 04:38		IE08 mid 11/01/2014 20:56	
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.08016	0.08039	0.3	0.07794	-2.8	0.07474	-6.8
3	Cl3(18)		1	Y	0.08032	0.08189	2.0	0.07566	-5.8	0.07571	-5.7
4	Cl3(34)	s	1	Y	0.08000	0.07633	-4.6	0.07909	-1.1	0.07777	-2.8
5	Cl3(28)		1	Y	0.08032	0.07849	-2.3	0.08015	-0.2	0.08069	0.5
6	Cl4(52)		1	Y	0.08008	0.07784	-2.8	0.07845	-2.0	0.07902	-1.3
7	Cl4(44)		1	Y	0.08032	0.07941	-1.1	0.07943	-1.1	0.07875	-2.0
8	Cl4(66)		1	Y	0.08016	0.07726	-3.6	0.07872	-1.8	0.08072	0.7
9	Cl5(101)		1	Y	0.08016	0.07417	-7.5	0.07493	-6.5	0.08086	0.9
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.08032	0.08364	4.1	0.08261	2.9	0.08142	1.4
12	Cl5(118)		1	Y	0.08032	0.08232	2.5	0.07650	-4.8	0.07814	-2.7
13	Cl6(153)		1	Y	0.08032	0.08283	3.1	0.07842	-2.4	0.07768	-3.3
14	Cl5(105)		1	Y	0.08024	0.08610	7.3	0.08079	0.7	0.07936	-1.1
15	Cl6(138)		1	Y	0.08032	0.08112	1.0	0.07842	-2.4	0.07945	-1.1
16	Cl7(187)		1	Y	0.08032	0.08049	0.2	0.08025	-0.1	0.08087	0.7
17	Cl6(128)		1	Y	0.08032	0.07917	-1.4	0.07745	-3.6	0.07587	-5.5
18	Cl7(180)		1	Y	0.08032	0.07953	-1.0	0.07827	-2.6	0.08039	0.1
19	Cl7(170)		1	Y	0.08032	0.07976	-0.7	0.07766	-3.3	0.08004	-0.3
20	Cl8(195)		1	Y	0.08032	0.07991	-0.5	0.07820	-2.6	0.08109	1.0
21	Cl9(206)		1	Y	0.08016	0.07840	-2.2	0.07470	-6.8	0.08018	0.0
22	Cl10(209)		1	Y	0.08032	0.07857	-2.2	0.07277	-9.4	0.07985	-0.6
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.08016	0.07909	-1.3	0.07523	-6.2	0.07098	-11.5
26	Cl3(18)		2	Y	0.08032	0.07930	-1.3	0.08230	2.5	0.07399	-7.9
27	Cl3(34)	s	2	Y	0.08000	0.07978	-0.3	0.07654	-4.3	0.07466	-6.7
28	Cl3(28)		2	Y	0.08032	0.07589	-5.5	0.07478	-6.9	0.07642	-4.9
29	Cl4(52)		2	Y	0.08008	0.08026	0.2	0.07702	-3.8	0.08042	0.4
30	Cl4(44)		2	Y	0.08032	0.07463	-7.1	0.08396	4.5	0.08380	4.3
31	Cl4(66)		2	Y	0.08016	0.07894	-1.5	0.07760	-3.2	0.07998	-0.2
32	Cl5(101)		2	Y	0.08016	0.07975	-0.5	0.08131	1.4	0.08569	6.9
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.08032	0.08554	6.5	0.08727	8.7	0.08366	4.2
35	Cl5(118)		2	Y	0.08032	0.08714	8.5	0.08040	0.1	0.08142	1.4
36	Cl6(153)		2	Y	0.08032	0.08128	1.2	0.07511	-6.5	0.07722	-3.9
37	Cl5(105)		2	Y	0.08024	0.08214	2.4	0.07679	-4.3	0.07988	-0.4
38	Cl6(138)		2	Y	0.08032	0.08526	6.2	0.08578	6.8	0.07797	-2.9
39	Cl7(187)		2	Y	0.08032	0.08322	3.6	0.07804	-2.8	0.08124	1.1
40	Cl6(128)		2	Y	0.08032	0.08162	1.6	0.07820	-2.6	0.08019	-0.2
41	Cl7(180)		2	Y	0.08032	0.08054	0.3	0.07890	-1.8	0.08126	1.2
42	Cl7(170)		2	Y	0.08032	0.08052	0.2	0.07737	-3.7	0.08136	1.3
43	Cl8(195)		2	Y	0.08032	0.08036	0.0	0.07743	-3.6	0.08234	2.5
44	Cl9(206)		2	Y	0.08016	0.07935	-1.0	0.07568	-5.6	0.08254	3.0

CCV Summary Report

Batch: 14-0494 Data Set: DP-14-0676
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7366.D		M7388.D		M7410.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.08032	0.07979	-0.7	0.07593	-5.5	0.08241	2.6
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	2.5	3.7	2.7		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0494 **Data Set:** DP-14-0676
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

M7432.D

IE08 mid

11/02/2014 13:21

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl2(8)		1	Y	0.08016	0.07370	-8.1
3	Cl3(18)		1	Y	0.08032	0.07586	-5.6
4	Cl3(34)	s	1	Y	0.08000	0.07709	-3.6
5	Cl3(28)		1	Y	0.08032	0.07902	-1.6
6	Cl4(52)		1	Y	0.08008	0.07724	-3.5
7	Cl4(44)		1	Y	0.08032	0.07754	-3.5
8	Cl4(66)		1	Y	0.08016	0.07669	-4.3
9	Cl5(101)		1	Y	0.08016	0.07770	-3.1
10	Cl6(161)	I	1	-			
11	Cl6(152)	s	1	Y	0.08032	0.07879	-1.9
12	Cl5(118)		1	Y	0.08032	0.07357	-8.4
13	Cl6(153)		1	Y	0.08032	0.07530	-6.2
14	Cl5(105)		1	Y	0.08024	0.07793	-2.9
15	Cl6(138)		1	Y	0.08032	0.07653	-4.7
16	Cl7(187)		1	Y	0.08032	0.07773	-3.2
17	Cl6(128)		1	Y	0.08032	0.07872	-2.0
18	Cl7(180)		1	Y	0.08032	0.07626	-5.1
19	Cl7(170)		1	Y	0.08032	0.07629	-5.0
20	Cl8(195)		1	Y	0.08032	0.07812	-2.7
21	Cl9(206)		1	Y	0.08016	0.07721	-3.7
22	Cl10(209)		1	Y	0.08032	0.07702	-4.1
24	Cl5(96)	I	2	-			
25	Cl2(8)		2	Y	0.08016	0.07130	-11.1
26	Cl3(18)		2	Y	0.08032	0.07551	-6.0
27	Cl3(34)	s	2	Y	0.08000	0.07284	-8.9
28	Cl3(28)		2	Y	0.08032	0.07130	-11.2
29	Cl4(52)		2	Y	0.08008	0.06982	-12.8
30	Cl4(44)		2	Y	0.08032	0.07996	-0.4
31	Cl4(66)		2	Y	0.08016	0.07663	-4.4
32	Cl5(101)		2	Y	0.08016	0.08769	9.4
33	Cl6(161)	I	2	-			
34	Cl6(152)	s	2	Y	0.08032	0.07971	-0.8
35	Cl5(118)		2	Y	0.08032	0.07601	-5.4
36	Cl6(153)		2	Y	0.08032	0.07189	-10.5
37	Cl5(105)		2	Y	0.08024	0.07651	-4.6
38	Cl6(138)		2	Y	0.08032	0.08114	1.0
39	Cl7(187)		2	Y	0.08032	0.08032	0.0
40	Cl6(128)		2	Y	0.08032	0.07841	-2.4
41	Cl7(180)		2	Y	0.08032	0.08022	-0.1
42	Cl7(170)		2	Y	0.08032	0.08053	0.3
43	Cl8(195)		2	Y	0.08032	0.08138	1.3
44	Cl9(206)		2	Y	0.08016	0.08169	1.9

CCV Summary Report

Batch: 14-0494 Data Set: DP-14-0676
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

M7432.D

IE08 mid

11/02/2014 13:21

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
45	Cl10(209)		2	Y	0.08032	0.08166	1.7

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: **4.4**
Time Check: **< 24**

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0494 Data Set: DP-14-0676
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7377.D		M7399.D		M7421.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						10/31/2014 20:28	11/01/2014 12:47	11/02/2014 05:07			
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.04008	0.03903	-2.6	0.03852	-3.9	0.03737	-6.8
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.04008	0.03786	-5.5	0.04117	2.7	0.03744	-6.6
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.1	3.3	6.7		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

CCV Summary Report

Batch: 14-0494 Data Set: DP-14-0676
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7366.D		M7388.D		M7410.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						10/31/2014 12:18	11/01/2014 04:38	11/01/2014 20:56			
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.08016	0.07937	-1.0	0.07367	-8.1	0.07294	-9.0
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.08016	0.07734	-3.5	0.07392	-7.8	0.07470	-6.8
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	2.3	8.0	7.9		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 RIS/SIS Mult : NA
 Total Cpnds : 45

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound	IE03	IE05	IE06	IE07	IE08	IE10
1 I Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2 Cl2(8)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3 Cl3(18)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
4 s Cl3(34)	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
5 Cl3(28)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
6 Cl4(52)	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
7 Cl4(44)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
8 Cl4(66)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
9 Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
10 I Cl6(161)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
11 s Cl6(152)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
12 Cl5(118)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
13 Cl6(153)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
14 Cl5(105)	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
15 Cl6(138)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
16 Cl7(187)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
17 Cl6(128)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
18 Cl7(180)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
19 Cl7(170)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
20 Cl8(195)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
21 Cl9(206)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
22 Cl10(209)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
23 Signal #2	-----	-----	-----	-----	-----	-----
24 I Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
25 Cl2(8) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
26 Cl3(18) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
27 s Cl3(34) #2	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
28 Cl3(28) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
29 Cl4(52) #2	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
30 Cl4(44) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
31 Cl4(66) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
32 Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
33 I Cl6(161) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
34 s Cl6(152) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
35 Cl5(118) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
36 Cl6(153) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
37 Cl5(105) #2	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
38 Cl6(138) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
39 Cl7(187) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
40 Cl6(128) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
41 Cl7(180) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
42 Cl7(170) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
43 Cl8(195) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
44 Cl9(206) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
45 Cl10(209) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015

Approval Date: Not Approved
Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 RIS/SIS Mult : 1.000
 Total Cpnds : 5

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound	IE03	IE05	IE06	IE07	IE08	IE10
1 I Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2 Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3 Signal #2	-----	-----	-----	-----	-----	-----
4 I Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
5 Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2021371m	0.10000	ng
10) I C16(161)	23.21	4304957	0.10000	ng
24) I C15(96) #2	20.51	12822282m	0.10000	ng
33) I C16(161) #2	26.79	28199596m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	119959m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
11) s C16(152)	20.48	106015	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
27) s C13(34) #2	16.48	687843m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
34) s C16(152) #2	23.58	473925m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	49812m	BelowCal	ng
3) C13(18)	12.13	63919m	BelowCal	ng
5) C13(28)	14.21	91859m	BelowCal	ng
6) C14(52)	15.84	129752	BelowCal	ng
7) C14(44)	16.70	95909	BelowCal	ng
8) C14(66)	18.60	103819m	BelowCal	ng
9) C15(101)	19.73	90878m	BelowCal	ng
12) C15(118)	22.40	106241m	BelowCal	ng
13) C16(153)	23.43 TW	91576m	BelowCal	ng
14) C15(105)	23.44 TW	124823m	BelowCal	ng
15) C16(138)	24.53	127136m	BelowCal	ng
16) C17(187)	25.29	111442m	BelowCal	ng
17) C16(128)	25.63	120454m	BelowCal	ng
18) C17(180)	27.16	127788	BelowCal	ng
19) C17(170)	27.96	138646m	BelowCal	ng
20) C18(195)	29.04	129501	BelowCal	ng
21) C19(206)	30.30	121956m	BelowCal	ng
22) C110(209)	30.90	102714m	BelowCal	ng
25) C12(8) #2	13.11	291232m	BelowCal	ng
26) C13(18) #2	15.00	430280m	BelowCal	ng
28) C13(28) #2	17.76	635375m	BelowCal	ng
29) C14(52) #2	19.15f	407881m	BelowCal	ng
30) C14(44) #2	19.96	700530m	BelowCal	ng
31) C14(66) #2	22.36	702095m	BelowCal	ng
32) C15(101) #2	23.30f	369053m	BelowCal	ng
35) C15(118) #2	26.37	931211m	BelowCal	ng
36) C16(153) #2	26.93	730887	BelowCal	ng
37) C15(105) #2	27.20	816392	BelowCal	ng
38) C16(138) #2	27.78	461727m	BelowCal	ng
39) C17(187) #2	28.14	667680	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
40)	Cl6(128) #2	28.54	880477m	BelowCal ng
41)	Cl7(180) #2	29.58	788251m	BelowCal ng
42)	Cl7(170) #2	30.21	800002m	BelowCal ng
43)	Cl8(195) #2	31.08	715719m	BelowCal ng
44)	Cl9(206) #2	32.18	637238m	BelowCal ng
45)	Cl10(209) #2	32.62	518551m	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
10) I C16(161)	23.21	4562564	0.10000	ng
24) I C15(96) #2	20.51	12416297m	0.10000	ng
33) I C16(161) #2	26.79	27129752m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.39	297705	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
11) s C16(152)	20.48	348526	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
27) s C13(34) #2	16.47	1801754m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
34) s C16(152) #2	23.57	1960933m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	180784	BelowCal	ng
3) C13(18)	12.12	242567	BelowCal	ng
5) C13(28)	14.21	356002	BelowCal	ng
6) C14(52)	15.83	330341	BelowCal	ng
7) C14(44)	16.70	371149	BelowCal	ng
8) C14(66)	18.60	419278	BelowCal	ng
9) C15(101)	19.73	349240m	BelowCal	ng
12) C15(118)	22.39	435665	BelowCal	ng
13) C16(153)	23.43 TW	390283m	BelowCal	ng
14) C15(105)	23.44 TW	495013m	BelowCal	ng
15) C16(138)	24.54	508129	BelowCal	ng
16) C17(187)	25.29	449817	BelowCal	ng
17) C16(128)	25.63	436637m	BelowCal	ng
18) C17(180)	27.16	515383	BelowCal	ng
19) C17(170)	27.96	571467	BelowCal	ng
20) C18(195)	29.04	524255m	BelowCal	ng
21) C19(206)	30.30	492822m	BelowCal	ng
22) C110(209)	30.90	411674m	BelowCal	ng
25) C12(8) #2	13.11	1082243m	BelowCal	ng
26) C13(18) #2	14.99	1474380m	BelowCal	ng
28) C13(28) #2	17.76	2242630m	BelowCal	ng
29) C14(52) #2	19.14	1313663m	BelowCal	ng
30) C14(44) #2	19.96	2184906m	BelowCal	ng
31) C14(66) #2	22.36	2512274m	BelowCal	ng
32) C15(101) #2	23.22f	2401459m	BelowCal	ng
35) C15(118) #2	26.34	1802006m	BelowCal	ng
36) C16(153) #2	26.93	2453717	BelowCal	ng
37) C15(105) #2	27.20	2870795	BelowCal	ng
38) C16(138) #2	27.78	1892629m	BelowCal	ng
39) C17(187) #2	28.14	2289736	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3074334	BelowCal	ng
41)	Cl7(180) #2	29.58	2699532	BelowCal	ng
42)	Cl7(170) #2	30.21	2859094m	BelowCal	ng
43)	Cl8(195) #2	31.08	2571011m	BelowCal	ng
44)	Cl9(206) #2	32.18	2275330m	BelowCal	ng
45)	Cl10(209) #2	32.62	1828475m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
10) I C16(161)	23.21	4815577	0.10000	ng
24) I C15(96) #2	20.51	13716870m	0.10000	ng
33) I C16(161) #2	26.79	29503850m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	526303	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
11) s C16(152)	20.48	653892	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
27) s C13(34) #2	16.47	3296041m	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
34) s C16(152) #2	23.58	3413733m	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.20	333163	BelowCal	ng
3) C13(18)	12.12	432057	BelowCal	ng
5) C13(28)	14.21	687914	BelowCal	ng
6) C14(52)	15.83	566807	BelowCal	ng
7) C14(44)	16.70	718063	BelowCal	ng
8) C14(66)	18.60	781317	BelowCal	ng
9) C15(101)	19.73	762207m	BelowCal	ng
12) C15(118)	22.39	822121	0.03093	ng
13) C16(153)	23.43 TW	582042m	BelowCal	ng
14) C15(105)	23.44 TW	965663m	BelowCal	ng
15) C16(138)	24.53	972641	BelowCal	ng
16) C17(187)	25.29	855745	BelowCal	ng
17) C16(128)	25.63	864076m	BelowCal	ng
18) C17(180)	27.16	964577	BelowCal	ng
19) C17(170)	27.96	1081580	BelowCal	ng
20) C18(195)	29.04	1016052	0.02214	ng
21) C19(206)	30.30 e	959902m	BelowCal	ng
22) C110(209)	30.90	792978	BelowCal	ng
25) C12(8) #2	13.10	2106184m	BelowCal	ng
26) C13(18) #2	14.99	2769502m	BelowCal	ng
28) C13(28) #2	17.76	4386422m	BelowCal	ng
29) C14(52) #2	19.14	2862174m	BelowCal	ng
30) C14(44) #2	19.96	4484836m	BelowCal	ng
31) C14(66) #2	22.35	4845930m	BelowCal	ng
32) C15(101) #2	23.22f	5513291m	BelowCal	ng
35) C15(118) #2	26.35	4335255m	BelowCal	ng
36) C16(153) #2	26.93	4720338	1858066.56915	ng
37) C15(105) #2	27.20	5791618	1122307.10620	ng
38) C16(138) #2	27.78	3691173m	BelowCal	ng
39) C17(187) #2	28.14	4540027	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	6164428	BelowCal	ng
41)	Cl7(180) #2	29.58	5451699	BelowCal	ng
42)	Cl7(170) #2	30.21	5828332m	1341992.36163	ng
43)	Cl8(195) #2	31.08	5312720	BelowCal	ng
44)	Cl9(206) #2	32.18	4740147m	BelowCal	ng
45)	Cl10(209) #2	32.62	3772500m	1559880.63544	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
10) I C16(161)	23.21	5366502	0.10000	ng
24) I C15(96) #2	20.51	14992953m	0.10000	ng
33) I C16(161) #2	26.79	34497986	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	990336	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
11) s C16(152)	20.48	1280995	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
27) s C13(34) #2	16.47	6281919m	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
34) s C16(152) #2	23.58	7591525m	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	e	607269	BelowCal ng
3) C13(18)	12.12	e	758928	BelowCal ng
5) C13(28)	14.21	e	1349346	BelowCal ng
6) C14(52)	15.83	e	1019304	BelowCal ng
7) C14(44)	16.70	e	1370610	4937947.47625 ng
8) C14(66)	18.60	e	1544814	BelowCal ng
9) C15(101)	19.73	e	1552699m	BelowCal ng
12) C15(118)	22.39	e	1625326	BelowCal ng
13) C16(153)	23.43	TW	1671077m	BelowCal ng
14) C15(105)	23.44	TW	2067241m	BelowCal ng
15) C16(138)	24.53	E	1975640	BelowCal ng
16) C17(187)	25.29	e	1704362m	BelowCal ng
17) C16(128)	25.63	e	1845001m	BelowCal ng
18) C17(180)	27.16	E	2019174m	BelowCal ng
19) C17(170)	27.96	E	2282709	3008040.19192 ng
20) C18(195)	29.04	E	2138682m	BelowCal ng
21) C19(206)	30.30	E	2074698m	BelowCal ng
22) C110(209)	30.90	E	1700197m	BelowCal ng
25) C12(8) #2	13.10	e	4038278m	BelowCal ng
26) C13(18) #2	14.99	e	4609294m	BelowCal ng
28) C13(28) #2	17.76	e	8581359m	2635734.36911 ng
29) C14(52) #2	19.14	e	4960711m	BelowCal ng
30) C14(44) #2	19.96	e	8717176m	1574158.07943 ng
31) C14(66) #2	22.36	e	9936993m	BelowCal ng
32) C15(101) #2	23.21f	e	12947398m	BelowCal ng
35) C15(118) #2	26.35	e	9808234m	BelowCal ng
36) C16(153) #2	26.93	E	9577231	5152267.10485 ng
37) C15(105) #2	27.20	E	12760987	3375570.13183 ng
38) C16(138) #2	27.78	e	8526537m	1389497.67562 ng
39) C17(187) #2	28.14	E	9590626	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	13380771	BelowCal ng
41)	Cl7(180) #2	29.58	E	11878441m	BelowCal ng
42)	Cl7(170) #2	30.21	E	12986040m	4087411.97930 ng
43)	Cl8(195) #2	31.08	E	11911883m	BelowCal ng
44)	Cl9(206) #2	32.18	E	10701956m	BelowCal ng
45)	Cl10(209) #2	32.62	E	8387432m	5983940.61406 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
10) I C16(161)	23.21	5424577	0.10000	ng
24) I C15(96) #2	20.51	15446142m	0.10000	ng
33) I C16(161) #2	26.79	34872167	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1861197	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
11) s C16(152)	20.48	2391536	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
27) s C13(34) #2	16.47	12156621m	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
34) s C16(152) #2	23.57	13279030m	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 1130878	BelowCal	ng
3) C13(18)	12.12	E 1399997	BelowCal	ng
5) C13(28)	14.21	E 2563059	BelowCal	ng
6) C14(52)	15.83	E 1879706	BelowCal	ng
7) C14(44)	16.70	E 2546734m	8209713.15303	ng
8) C14(66)	18.60	E 2898127	BelowCal	ng
9) C15(101)	19.74	E 2892299m	BelowCal	ng
12) C15(118)	22.39	E 2978206	BelowCal	ng
13) C16(153)	23.44	TW e 2876946m	BelowCal	ng
14) C15(105)	23.45	TW e 3582092m	1460512.29312	ng
15) C16(138)	24.54	E 3695490	BelowCal	ng
16) C17(187)	25.29	E 3239289	BelowCal	ng
17) C16(128)	25.64	E 3673746m	3005443.36077	ng
18) C17(180)	27.15	E 3855848m	BelowCal	ng
19) C17(170)	27.96	E 4378231	5123824.53354	ng
20) C18(195)	29.04	E 4116319m	BelowCal	ng
21) C19(206)	30.31	E 3960506m	BelowCal	ng
22) C110(209)	30.90	E 3217630m	BelowCal	ng
25) C12(8) #2	13.10	E 7701304	BelowCal	ng
26) C13(18) #2	14.99	E 8745402m	BelowCal	ng
28) C13(28) #2	17.76	E 16942159	4721046.44848	ng
29) C14(52) #2	19.14	E 9969394	3586542.90657	ng
30) C14(44) #2	19.96	E 17386149m	5402544.89334	ng
31) C14(66) #2	22.35	E 19075871m	BelowCal	ng
32) C15(101) #2	23.21f	E 25811518m	BelowCal	ng
35) C15(118) #2	26.35	e 16530172m	BelowCal	ng
36) C16(153) #2	26.93	E 17723976	8475069.04022	ng
37) C15(105) #2	27.20	E 24719069	5584053.95798	ng
38) C16(138) #2	27.78	E 17133888m	4026737.36316	ng
39) C17(187) #2	28.14	E 18398636	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	26047859	BelowCal ng
41)	Cl7(180) #2	29.58	E	23443478m	BelowCal ng
42)	Cl7(170) #2	30.21	E	25601551m	6820215.95092 ng
43)	Cl8(195) #2	31.08	E	23548017m	BelowCal ng
44)	Cl9(206) #2	32.18	E	21216572m	BelowCal ng
45)	Cl10(209) #2	32.62	E	16438463m	10094597.27940 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I C15(96)	17.39	2857033m	0.10000 ng
10) I C16(161)	23.21	5785136	0.10000 ng
24) I C15(96) #2	20.51	15534608m	0.10000 ng
33) I C16(161) #2	26.79	28894537	0.10000 ng
System Monitoring Compounds			
4) s C13(34)	13.40	6582490m BelowCal	ng
Spiked Amount	0.3200	Recovery =	0.00%
11) s C16(152)	20.48	8920810 BelowCal	ng
Spiked Amount	0.3213	Recovery =	0.00%
27) s C13(34) #2	16.47	39634387m BelowCal	ng
Spiked Amount	0.3200	Recovery =	0.00%
34) s C16(152) #2	23.57	49764814m BelowCal	ng
Spiked Amount	0.3213	Recovery =	0.00%
Target Compounds			
2) C12(8)	10.21	E 3802803 BelowCal	ng
3) C13(18)	12.12	E 4625770 BelowCal	ng
5) C13(28)	14.20	E 9305861 BelowCal	ng
6) C14(52)	15.83	E 6491550m BelowCal	ng
7) C14(44)	16.70	E 9213228m 16878676.73504	ng
8) C14(66)	18.60	E 10581706 BelowCal	ng
9) C15(101)	19.74	E 11214785m BelowCal	ng
12) C15(118)	22.39	E 10845273 BelowCal	ng
13) C16(153)	23.44	TW E 11086255m BelowCal	ng
14) C15(105)	23.45	TW E 12238036m 4834222.71684	ng
15) C16(138)	24.54	E 14181010 BelowCal	ng
16) C17(187)	25.28	E 12362255m BelowCal	ng
17) C16(128)	25.63	E 13614003m 7619432.15592	ng
18) C17(180)	27.16	E 15356923 BelowCal	ng
19) C17(170)	27.96	E 17491960 11231671.25949	ng
20) C18(195)	29.04	E 16570469m BelowCal	ng
21) C19(206)	30.30	E 15913312m BelowCal	ng
22) C110(209)	30.90	E 12593895m BelowCal	ng
25) C12(8) #2	13.10	E 24205484m BelowCal	ng
26) C13(18) #2	14.99	E 27041957m BelowCal	ng
28) C13(28) #2	17.76	E 56387566m 9817113.52330	ng
29) C14(52) #2	19.14	E 31213496m 8327658.06829	ng
30) C14(44) #2	19.96	E 56797595m 12385262.50102	ng
31) C14(66) #2	22.36	E 65508405m BelowCal	ng
32) C15(101) #2	23.21f	E 73990498m BelowCal	ng
35) C15(118) #2	26.34	E 53052856m BelowCal	ng
36) C16(153) #2	26.93	E 58782173 19272949.92145	ng
37) C15(105) #2	27.20	E 87183647 12882056.53676	ng
38) C16(138) #2	27.78	E 63446136m 10766758.70710	ng
39) C17(187) #2	28.14	E 63573730 BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	91431997	BelowCal ng
41)	Cl7(180) #2	29.58	E	83277221m	BelowCal ng
42)	Cl7(170) #2	30.21	E	91217127m	15760612.61828 ng
43)	Cl8(195) #2	31.08	E	84844015m	BelowCal ng
44)	Cl9(206) #2	32.17	E	76001510m	BelowCal ng
45)	Cl10(209) #2	32.62	E	57560994m	23285632.07742 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
10) I C16(161)	23.21	5353469	0.10000	ng	
24) I C15(96) #2	20.51	13969685m	0.10000	ng	
33) I C16(161) #2	26.78	30447371	0.10000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	1040909	0.04104	ng	2.6
Spiked Amount	0.0400	Recovery	=	102.60%	
11) s C16(152)	20.48	1350202	0.04329	ng	7.8
Spiked Amount	0.0402	Recovery	=	107.79%	
27) s C13(34) #2	16.47	6131122m	0.04171	ng	4.3
Spiked Amount	0.0400	Recovery	=	104.27%	
34) s C16(152) #2	23.57	6327177m	0.04129	ng	2.8
Spiked Amount	0.0402	Recovery	=	102.81%	
Target Compounds					
2) C12(8)	10.21	664551	0.04326	ng	8.1
3) C13(18)	12.12	802051	0.04152	ng	3.8
5) C13(28)	14.21	1396518	0.04098	ng	2.5
6) C14(52)	15.83	1070948	0.04112	ng	2.8
7) C14(44)	16.70	1426889m	0.04167	ng	4.2
8) C14(66)	18.60	1565208	0.04028	ng	0.7
9) C15(101)	19.73	1426993m	0.03706	ng	-7.3
12) C15(118)	22.39	1627776	0.04151	ng	3.8
13) C16(153)	23.43	1467714m	0.03933	ng	-1.7
14) C15(105)	23.45	1824192m	0.03778	ng	-5.5
15) C16(138)	24.53	2023467	0.04232	ng	5.8
16) C17(187)	25.29	1787515	0.04281	ng	7.0
17) C16(128)	25.63	1824156m	0.03935	ng	-1.6
18) C17(180)	27.15	2038700	0.04138	ng	3.4
19) C17(170)	27.96	2269675	0.04068	ng	1.7
20) C18(195)	29.04	2088594m	0.03989	ng	-0.3
21) C19(206)	30.30	1961931m	0.03884	ng	-2.9
22) C110(209)	30.90	1612364m	0.03909	ng	-2.3
25) C12(8) #2	13.10	3947204m	0.04248	ng	6.2
26) C13(18) #2	14.99	4351305m	0.03989	ng	-0.3
28) C13(28) #2	17.76	8214453m	0.04094	ng	2.3
29) C14(52) #2	19.14	4859257m	0.04058	ng	1.4
30) C14(44) #2	19.96	8466239m	0.04126	ng	3.1
31) C14(66) #2	22.35	9294328m	0.04096	ng	2.4
32) C15(101) #2	23.24	4934904m	0.03828	ng	-4.3
35) C15(118) #2	26.35	7705344m	0.03951	ng	-1.2
36) C16(153) #2	26.93	8835029	0.04347	ng	8.7
37) C15(105) #2	27.20	11200960m	0.04079	ng	2.0
38) C16(138) #2	27.78	7622194m	0.04108	ng	2.7
39) C17(187) #2	28.14	8806327	0.04269	ng	6.7

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	11964334m	0.04137	ng	3.4
41)	Cl7(180) #2	29.58	10533125m	0.04073	ng	1.8
42)	Cl7(170) #2	30.21	11398863m	0.04051	ng	1.3
43)	Cl8(195) #2	31.08	10207239m	0.03956	ng	-1.1
44)	Cl9(206) #2	32.18	9021058m	0.03879	ng	-3.0
45)	Cl10(209) #2	32.62	7069806m	0.03894	ng	-2.6

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7366.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0420\M7366.D\ECD2B.CH
 Acq On : 31 Oct 2014 12:18 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2882190	0.10000	ng
10) I C16(161)	23.20	5955181m	0.10000	ng
24) I C15(96) #2	20.51	14867149m	0.10000	ng
33) I C16(161) #2	26.78	32248189m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2056445	0.07633	ng
Spiked Amount	0.0800	Recovery	=	95.41%
11) s C16(152)	20.48	2750113	0.08364	ng
Spiked Amount	0.0803	Recovery	=	104.13%
27) s C13(34) #2	16.47	11680156m	0.07978	ng
Spiked Amount	0.0800	Recovery	=	99.73%
34) s C16(152) #2	23.57	13479403m	0.08554	ng
Spiked Amount	0.0803	Recovery	=	106.50%
Target Compounds				
2) C12(8)	10.21	1313763	0.08039	ng
3) C13(18)	12.12	1652169	0.08189	ng
5) C13(28)	14.21	2904281	0.07849	ng
6) C14(52)	15.83	2118533	0.07784	ng
7) C14(44)	16.70	2930548	0.07941	ng
8) C14(66)	18.60	3250928	0.07726	ng
9) C15(101)	19.73	3135588m	0.07417	ng
12) C15(118)	22.39	3391627	0.08232	ng
13) C16(153)	23.44 TW	3325754m	0.08283	ng
14) C15(105)	23.45 TW	4290980m	0.08610	ng
15) C16(138)	24.54	4140770	0.08112	ng
16) C17(187)	25.29	3591602	0.08049	ng
17) C16(128)	25.63	3967350m	0.07917	ng
18) C17(180)	27.16	4224797	0.07953	ng
19) C17(170)	27.96	4807838	0.07976	ng
20) C18(195)	29.04	4527356m	0.07991	ng
21) C19(206)	30.30	4290703m	0.07840	ng
22) C110(209)	30.90	3490153m	0.07857	ng
25) C12(8) #2	13.10	7377859m	0.07909	ng
26) C13(18) #2	14.99	8391039m	0.07930	ng
28) C13(28) #2	17.76	15496377m	0.07589	ng
29) C14(52) #2	19.14	9602649m	0.08026	ng
30) C14(44) #2	19.96	15619829m	0.07463	ng
31) C14(66) #2	22.35	18232972m	0.07894	ng
32) C15(101) #2	23.24	10563798m	0.07975	ng
35) C15(118) #2	26.35	17048307m	0.08714	ng
36) C16(153) #2	26.93	16841670	0.08128	ng
37) C15(105) #2	27.20	23616805	0.08214	ng
38) C16(138) #2	27.78	16916056m	0.08526	ng
39) C17(187) #2	28.14	17802516	0.08322	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7366.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0420\M7366.D\ECD2B.CH
 Acq On : 31 Oct 2014 12:18 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	24675623m	0.08162	ng
41)	Cl7(180) #2	29.58	21864119m	0.08054	ng
42)	Cl7(170) #2	30.21	23885905m	0.08052	ng
43)	Cl8(195) #2	31.08	21927027m	0.08036	ng
44)	Cl9(206) #2	32.18	19527504m	0.07935	ng
45)	Cl10(209) #2	32.62	15207536m	0.07979	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7377.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0420\M7377.D\ECD2B.CH
 Acq On : 10-31-2014 08:28:21 PM Operator: RR
 Sample : IE07mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3346131	0.10000	ng
10) I C16(161)	23.21	7516612m	0.10000	ng
24) I C15(96) #2	20.52	16866362m	0.10000	ng
33) I C16(161) #2	26.79	40275220	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1374919	0.04058	ng
Spiked Amount	0.0400	Recovery	=	101.45%
11) s C16(152)	20.48	1832941	0.04172	ng
Spiked Amount	0.0402	Recovery	=	103.88%
27) s C13(34) #2	16.47	7125992m	0.03996	ng
Spiked Amount	0.0400	Recovery	=	99.90%
34) s C16(152) #2	23.58	9096291m	0.04518	ng
Spiked Amount	0.0402	Recovery	=	112.50%
Target Compounds				
2) C12(8)	10.21	852744	0.04138	ng
3) C13(18)	12.12	1051363	0.04069	ng
5) C13(28)	14.21	1917066	0.04229	ng
6) C14(52)	15.83	1420109	0.04084	ng
7) C14(44)	16.70	1870801m	0.04088	ng
8) C14(66)	18.60	2133601	0.04126	ng
9) C15(101)	19.73	2048754m	0.04011	ng
12) C15(118)	22.39	2237243	0.04055	ng
13) C16(153)	23.44 TW	2138917m	0.04089	ng
14) C15(105)	23.45 TW	2525706m	0.03720	ng
15) C16(138)	24.54	2743242	0.04075	ng
16) C17(187)	25.29	2442220	0.04157	ng
17) C16(128)	25.63	2504446m	0.03844	ng
18) C17(180)	27.15	2793268m	0.04032	ng
19) C17(170)	27.96	3168737	0.04044	ng
20) C18(195)	29.04	2973813m	0.04048	ng
21) C19(206)	30.30	2802345m	0.03955	ng
22) C110(209)	30.90	2272215m	0.03924	ng
25) C12(8) #2	13.10	4490056m	0.03978	ng
26) C13(18) #2	14.99	5067471m	0.03823	ng
28) C13(28) #2	17.76	9775966	0.04031	ng
29) C14(52) #2	19.14	6081713	0.04222	ng
30) C14(44) #2	19.97	9702527m	0.03901	ng
31) C14(66) #2	22.36	11551070	0.04225	ng
32) C15(101) #2	23.24	5808034m	0.03722	ng
35) C15(118) #2	26.35	9890720m	0.03823	ng
36) C16(153) #2	26.94	10415976	0.03831	ng
37) C15(105) #2	27.20	14374253	0.03953	ng
38) C16(138) #2	27.78	10545215m	0.04297	ng
39) C17(187) #2	28.14	11080556	0.04049	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7377.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0420\M7377.D\ECD2B.CH
 Acq On : 10-31-2014 08:28:21 PM Operator: RR
 Sample : IE07mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	15514216	0.04052	ng
41)	Cl7(180) #2	29.58	13837804	0.04045	ng
42)	Cl7(170) #2	30.21	14759711m	0.03963	ng
43)	Cl8(195) #2	31.09	13473467m	0.03948	ng
44)	Cl9(206) #2	32.18	11930585m	0.03878	ng
45)	Cl10(209) #2	32.62	9316319m	0.03878	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7388.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0420\M7388.D\ECD2B.CH
 Acq On : 11-1-2014 04:37:35 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3628030m	0.10000	ng
10) I C16(161)	23.21	7918673m	0.10000	ng
24) I C15(96) #2	20.52	17623513	0.10000	ng
33) I C16(161) #2	26.79	38521988	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2670711m	0.07909	ng
Spiked Amount	0.0800	Recovery	=	98.86%
11) s C16(152)	20.48	3615109	0.08261	ng
Spiked Amount	0.0803	Recovery	=	102.85%
27) s C13(34) #2	16.48	13338719	0.07654	ng
Spiked Amount	0.0800	Recovery	=	95.67%
34) s C16(152) #2	23.58	16426306m	0.08727	ng
Spiked Amount	0.0803	Recovery	=	108.65%
Target Compounds				
2) C12(8)	10.21	1609705	0.07794	ng
3) C13(18)	12.13	1943084	0.07566	ng
5) C13(28)	14.21	3725618	0.08015	ng
6) C14(52)	15.84	2684938	0.07845	ng
7) C14(44)	16.70	3689808m	0.07943	ng
8) C14(66)	18.60	4161758	0.07872	ng
9) C15(101)	19.74	3984740m	0.07493	ng
12) C15(118)	22.39	4216245	0.07650	ng
13) C16(153)	23.44	4198078m	0.07842	ng
14) C15(105)	23.46	5387787m	0.08079	ng
15) C16(138)	24.54	5333586	0.07842	ng
16) C17(187)	25.29	4762662	0.08025	ng
17) C16(128)	25.64	5165966m	0.07745	ng
18) C17(180)	27.16	5532392	0.07827	ng
19) C17(170)	27.96	6231578	0.07766	ng
20) C18(195)	29.04	5896252m	0.07820	ng
21) C19(206)	30.31	5445413m	0.07470	ng
22) C110(209)	30.90	4312895m	0.07277	ng
25) C12(8) #2	13.11	8359866	0.07523	ng
26) C13(18) #2	14.99	10273158m	0.08230	ng
28) C13(28) #2	17.76	18121359	0.07478	ng
29) C14(52) #2	19.15	10968183	0.07702	ng
30) C14(44) #2	19.97	20638488m	0.08396	ng
31) C14(66) #2	22.36	21270948	0.07760	ng
32) C15(101) #2	23.24	12764606m	0.08131	ng
35) C15(118) #2	26.35	18869702m	0.08040	ng
36) C16(153) #2	26.94	18656281	0.07511	ng
37) C15(105) #2	27.20	26374006	0.07679	ng
38) C16(138) #2	27.78	20333578m	0.08578	ng
39) C17(187) #2	28.14	19962146	0.07804	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7388.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0420\M7388.D\ECD2B.CH
 Acq On : 11-1-2014 04:37:35 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	28245644	0.07820	ng
41)	Cl7(180) #2	29.59	25584726	0.07890	ng
42)	Cl7(170) #2	30.22	27405586	0.07737	ng
43)	Cl8(195) #2	31.09	25224762	0.07743	ng
44)	Cl9(206) #2	32.18	22234833m	0.07568	ng
45)	Cl10(209) #2	32.62	17284726m	0.07593	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7399.D\ECD1A.CH Vial: 36
 Signal #2 : I:\M\DATA\SM0420\M7399.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:47 pm Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:12 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3678142	0.10000	ng
10) I C16(161)	23.22	8525114	0.10000	ng
24) I C15(96) #2	20.52	18104292m	0.10000	ng
33) I C16(161) #2	26.79	44507298	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1485705m	0.03978	ng
Spiked Amount	0.0400	Recovery	=	99.45%
11) s C16(152)	20.48	2042428	0.04091	ng
Spiked Amount	0.0402	Recovery	=	101.87%
27) s C13(34) #2	16.48	7448738m	0.03878	ng
Spiked Amount	0.0400	Recovery	=	96.95%
34) s C16(152) #2	23.58	9128302m	0.04070	ng
Spiked Amount	0.0402	Recovery	=	101.34%
Target Compounds				
2) C12(8)	10.21	894657	0.03922	ng
3) C13(18)	12.13	1111026	0.03884	ng
5) C13(28)	14.21	2092129	0.04196	ng
6) C14(52)	15.84	1548708	0.04045	ng
7) C14(44)	16.70	2081957m	0.04145	ng
8) C14(66)	18.60	2367586	0.04170	ng
9) C15(101)	19.73	2223158m	0.03956	ng
12) C15(118)	22.39	2500068	0.03989	ng
13) C16(153)	23.44 TW	2461736m	0.04152	ng
14) C15(105)	23.45 TW	2877640m	0.03738	ng
15) C16(138)	24.54	3089026	0.04044	ng
16) C17(187)	25.29	2747720	0.04121	ng
17) C16(128)	25.64	2716257m	0.03670	ng
18) C17(180)	27.16	3132021m	0.03983	ng
19) C17(170)	27.96	3537973m	0.03978	ng
20) C18(195)	29.04	3369766m	0.04044	ng
21) C19(206)	30.31	3205587m	0.03990	ng
22) C110(209)	30.90	2595247m	0.03953	ng
25) C12(8) #2	13.10	4657975m	0.03831	ng
26) C13(18) #2	15.00	5614451m	0.03969	ng
28) C13(28) #2	17.76	10007850m	0.03829	ng
29) C14(52) #2	19.15	6044733m	0.03878	ng
30) C14(44) #2	19.97	11415270m	0.04305	ng
31) C14(66) #2	22.36	12125109m	0.04125	ng
32) C15(101) #2	23.25	6685993m	0.04018	ng
35) C15(118) #2	26.35	11085671m	0.03883	ng
36) C16(153) #2	26.94	11160214m	0.03702	ng
37) C15(105) #2	27.20	15593513m	0.03877	ng
38) C16(138) #2	27.78	11547586m	0.04258	ng
39) C17(187) #2	28.14	12407453	0.04106	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7399.D\ECD1A.CH Vial: 36
 Signal #2 : I:\M\DATA\SM0420\M7399.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:47 pm Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:12 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	17192340m	0.04064	ng
41)	Cl7(180) #2	29.59	15516515m	0.04106	ng
42)	Cl7(170) #2	30.22	16976019m	0.04129	ng
43)	Cl8(195) #2	31.09	15635532m	0.04149	ng
44)	Cl9(206) #2	32.18	14085507m	0.04147	ng
45)	Cl10(209) #2	32.62	10937840m	0.04127	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7410.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0420\M7410.D\ECD2B.CH
 Acq On : 11-1-2014 08:56:13 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:11 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3923147m	0.10000	ng
10) I C16(161)	23.21	8844389m	0.10000	ng
24) I C15(96) #2	20.52	19800765m	0.10000	ng
33) I C16(161) #2	26.79	46635078m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2845451	0.07777	ng
Spiked Amount	0.0800	Recovery	=	97.21%
11) s C16(152)	20.48	3983979	0.08142	ng
Spiked Amount	0.0803	Recovery	=	101.37%
27) s C13(34) #2	16.48	14653213m	0.07466	ng
Spiked Amount	0.0800	Recovery	=	93.33%
34) s C16(152) #2	23.58	19065674m	0.08366	ng
Spiked Amount	0.0803	Recovery	=	104.16%
Target Compounds				
2) C12(8)	10.21	1677951	0.07474	ng
3) C13(18)	12.13	2102243	0.07571	ng
5) C13(28)	14.21	4053540	0.08069	ng
6) C14(52)	15.84	2921555	0.07902	ng
7) C14(44)	16.70	3959334m	0.07875	ng
8) C14(66)	18.60	4603682	0.08072	ng
9) C15(101)	19.74	4625307m	0.08086	ng
12) C15(118)	22.39	4801699	0.07814	ng
13) C16(153)	23.44	4647009m	0.07768	ng
14) C15(105)	23.46	5920869m	0.07936	ng
15) C16(138)	24.54	6030819	0.07945	ng
16) C17(187)	25.29	5358113	0.08087	ng
17) C16(128)	25.63	5658193m	0.07587	ng
18) C17(180)	27.16	6339508	0.08039	ng
19) C17(170)	27.96	7164187	0.08004	ng
20) C18(195)	29.04	6819356m	0.08109	ng
21) C19(206)	30.31	6511645m	0.08018	ng
22) C110(209)	30.90	5263665m	0.07985	ng
25) C12(8) #2	13.11	8912640m	0.07098	ng
26) C13(18) #2	15.00	10519752m	0.07399	ng
28) C13(28) #2	17.76	20773694	0.07642	ng
29) C14(52) #2	19.15	12811839	0.08042	ng
30) C14(44) #2	19.97	23146107m	0.08380	ng
31) C14(66) #2	22.36	24580110m	0.07998	ng
32) C15(101) #2	23.24	15108154m	0.08569	ng
35) C15(118) #2	26.35	23117566m	0.08142	ng
36) C16(153) #2	26.94	23189650	0.07722	ng
37) C15(105) #2	27.20	33215210	0.07988	ng
38) C16(138) #2	27.79	22313052m	0.07797	ng
39) C17(187) #2	28.14	25141835	0.08124	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7410.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0420\M7410.D\ECD2B.CH
 Acq On : 11-1-2014 08:56:13 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:11 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	35059124m	0.08019	ng
41)	Cl7(180) #2	29.59	31903517m	0.08126	ng
42)	Cl7(170) #2	30.22	34904242m	0.08136	ng
43)	Cl8(195) #2	31.09	32500865m	0.08234	ng
44)	Cl9(206) #2	32.18	29391729m	0.08254	ng
45)	Cl10(209) #2	32.62	22716057m	0.08241	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7421.D\ECD1A.CH Vial: 58
 Signal #2 : I:\M\DATA\SM0420\M7421.D\ECD2B.CH
 Acq On : 11-2-2014 05:07:15 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:27:18 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:27:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3669074m	0.10000	ng
10) I C16(161)	23.22	8207625m	0.10000	ng
24) I C15(96) #2	20.52	19000429m	0.10000	ng
33) I C16(161) #2	26.79	45785145m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1505494	0.04052	ng
Spiked Amount	0.0400	Recovery	=	101.30%
11) s C16(152)	20.48	1991260m	0.04148	ng
Spiked Amount	0.0402	Recovery	=	103.29%
27) s C13(34) #2	16.48	7837250m	0.03889	ng
Spiked Amount	0.0400	Recovery	=	97.23%
34) s C16(152) #2	23.58	9739347m	0.04235	ng
Spiked Amount	0.0402	Recovery	=	105.45%
Target Compounds				
2) C12(8)	10.21	890186	0.03911	ng
3) C13(18)	12.13	1132818	0.03986	ng
5) C13(28)	14.21	2080759	0.04182	ng
6) C14(52)	15.84	1563787	0.04104	ng
7) C14(44)	16.70	2054635m	0.04095	ng
8) C14(66)	18.60	2328894	0.04106	ng
9) C15(101)	19.74	2237954m	0.03994	ng
12) C15(118)	22.40	2527414	0.04209	ng
13) C16(153)	23.45 T	2386755m	0.04183	ng
14) C15(105)	23.45 T	2891083m	0.03918	ng
15) C16(138)	24.54	2902965m	0.03940	ng
16) C17(187)	25.29	2573084m	0.04000	ng
17) C16(128)	25.64	2732077m	0.03840	ng
18) C17(180)	27.16	2990717m	0.03949	ng
19) C17(170)	27.96	3371265m	0.03935	ng
20) C18(195)	29.04	3218465m	0.04010	ng
21) C19(206)	30.31	3068544m	0.03966	ng
22) C110(209)	30.90	2491710m	0.03942	ng
25) C12(8) #2	13.11	4981931m	0.03912	ng
26) C13(18) #2	15.00	5771136m	0.03872	ng
28) C13(28) #2	17.77	10513925m	0.03834	ng
29) C14(52) #2	19.14	6479397m	0.03970	ng
30) C14(44) #2	19.97	10319358m	0.03666	ng
31) C14(66) #2	22.36	12430409m	0.04022	ng
32) C15(101) #2	23.25	6643374m	0.03785	ng
35) C15(118) #2	26.35	10784470m	0.03650	ng
36) C16(153) #2	26.94	11285353m	0.03632	ng
37) C15(105) #2	27.21	16190275m	0.03915	ng
38) C16(138) #2	27.78	11975725m	0.04293	ng
39) C17(187) #2	28.14	12631230m	0.04061	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7421.D\ECD1A.CH Vial: 58
 Signal #2 : I:\M\DATA\SM0420\M7421.D\ECD2B.CH
 Acq On : 11-2-2014 05:07:15 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:27:18 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:27:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	17583522m	0.04039	ng
41)	Cl7(180) #2	29.59	16115707m	0.04147	ng
42)	Cl7(170) #2	30.22	17905627m	0.04235	ng
43)	Cl8(195) #2	31.09	16688883m	0.04308	ng
44)	Cl9(206) #2	32.18	15557100m	0.04457	ng
45)	Cl10(209) #2	32.62	12159243m	0.04469	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7432.D\ECD1A.CH Vial: 69
 Signal #2 : I:\M\DATA\SM0420\M7432.D\ECD2B.CH
 Acq On : 11-2-2014 01:20:36 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:28:08 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:28:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3835624m	0.10000	ng
10) I C16(161)	23.22	8717281	0.10000	ng
24) I C15(96) #2	20.52	19368007m	0.10000	ng
33) I C16(161) #2	26.80	44531650	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2760506	0.07709	ng
Spiked Amount	0.0800	Recovery	=	96.36%
11) s C16(152)	20.48	3809735	0.07879	ng
Spiked Amount	0.0803	Recovery	=	98.10%
27) s C13(34) #2	16.48	14018395m	0.07284	ng
Spiked Amount	0.0800	Recovery	=	91.05%
34) s C16(152) #2	23.58	17352793m	0.07971	ng
Spiked Amount	0.0803	Recovery	=	99.24%
Target Compounds				
2) C12(8)	10.21	1620606	0.07370	ng
3) C13(18)	12.13	2059003	0.07586	ng
5) C13(28)	14.21	3888454	0.07902	ng
6) C14(52)	15.84	2800902	0.07724	ng
7) C14(44)	16.70	3817388m	0.07754	ng
8) C14(66)	18.61	4297122m	0.07669	ng
9) C15(101)	19.74	4357387m	0.07770	ng
12) C15(118)	22.40	4477628m	0.07357	ng
13) C16(153)	23.45 TW	4446169m	0.07530	ng
14) C15(105)	23.46 TW	5741085m	0.07793	ng
15) C16(138)	24.55	5738525	0.07653	ng
16) C17(187)	25.29	5088337	0.07773	ng
17) C16(128)	25.64	5776017m	0.07872	ng
18) C17(180)	27.16	5940897m	0.07626	ng
19) C17(170)	27.97	6743203m	0.07629	ng
20) C18(195)	29.04	6484310m	0.07812	ng
21) C19(206)	30.31	6188660m	0.07721	ng
22) C110(209)	30.90	5012352m	0.07702	ng
25) C12(8) #2	13.11	8753460m	0.07130	ng
26) C13(18) #2	15.00	10474266m	0.07551	ng
28) C13(28) #2	17.77	19055759m	0.07130	ng
29) C14(52) #2	19.15	11029352m	0.06982	ng
30) C14(44) #2	19.97	21684166m	0.07996	ng
31) C14(66) #2	22.36	23105401m	0.07663	ng
32) C15(101) #2	23.24	15120085m	0.08769	ng
35) C15(118) #2	26.36	20687064m	0.07601	ng
36) C16(153) #2	26.94	20683854m	0.07189	ng
37) C15(105) #2	27.21	30380647m	0.07651	ng
38) C16(138) #2	27.79	22196306m	0.08114	ng
39) C17(187) #2	28.14	23738687	0.08032	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7432.D\ECD1A.CH Vial: 69
 Signal #2 : I:\M\DATA\SM0420\M7432.D\ECD2B.CH
 Acq On : 11-2-2014 01:20:36 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:28:08 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:28:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	32740061m	0.07841	ng
41)	Cl7(180) #2	29.59	30071977m	0.08022	ng
42)	Cl7(170) #2	30.22	32986911	0.08053	ng
43)	Cl8(195) #2	31.09	30668487m	0.08138	ng
44)	Cl9(206) #2	32.18	27775122m	0.08169	ng
45)	Cl10(209) #2	32.63	21492991m	0.08166	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:34 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2038180	0.10000	ng
4) I C15(96) #2	20.51	12872032m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	102746m	0.00162	ng
5) C15(101) #2	23.23	516701m	0.00035	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:38 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
4) I C15(96) #2	20.51	13386960	0.10000	ng
Target Compounds				
2) C15(101)	19.73	341674m	0.00915	ng
5) C15(101) #2	23.22	3258192m	0.02515	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
4) I C15(96) #2	20.51	13612237m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	753837m	0.02114	ng
5) C15(101) #2	23.22	5441576m	0.04378	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:46 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
4) I C15(96) #2	20.51	14869473m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	1636592m	0.04499	ng
5) C15(101) #2	23.21	11842524m	0.08946	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:50 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
4) I C15(96) #2	20.51	15494530m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2973113m	0.08080	ng
5) C15(101) #2	23.21	25660002m	0.18179	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:54 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2539311m	0.10000	ng
4) I C15(96) #2	20.51	15194166m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	11042195m	0.36809	ng
5) C15(101) #2	23.22 e	68456197m	0.44286	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:24:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:22:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	

Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
4) I C15(96) #2	20.51	13936712m	0.10000	ng	
Target Compounds					
2) C15(101)	19.73	1516710m	0.03859	ng	-3.5
5) C15(101) #2	23.21	11320633m	0.03850	ng	-3.8

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7366.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0420\M7366.D\ECD2B.CH
 Acq On : 31 Oct 2014 12:18 pm Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:00:06 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:00:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2882190	0.10000	ng
4) I C15(96) #2	20.51	15017810m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	3452418m	0.07937	ng
5) C15(101) #2	23.21	23647973m	0.07734	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7377.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0420\M7377.D\ECD2B.CH
 Acq On : 10-31-2014 08:28:21 PM Operator: RR
 Sample : IE07mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:04 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:38:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3346131	0.10000	ng
4) I C15(96) #2	20.52	16778147m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	2045000m	0.03903	ng
5) C15(101) #2	23.22	13405374m	0.03786	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7388.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0420\M7388.D\ECD2B.CH
 Acq On : 11-1-2014 04:37:35 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:39 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3657950	0.10000	ng
4) I C15(96) #2	20.52	16699975m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	4082482m	0.07367	ng
5) C15(101) #2	23.22	25232042m	0.07392	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7399.D\ECD1A.CH Vial: 36
 Signal #2 : I:\M\DATA\SM0420\M7399.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:47 pm Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:14 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3678142	0.10000	ng
4) I C15(96) #2	20.52	17779911m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	2219811m	0.03852	ng
5) C15(101) #2	23.21	15420222m	0.04117	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7410.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0420\M7410.D\ECD2B.CH
 Acq On : 11-1-2014 08:56:13 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:48 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	4018721	0.10000	ng
4) I C15(96) #2	20.52	19449225m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	4442628m	0.07294	ng
5) C15(101) #2	23.22	29669883m	0.07470	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7421.D\ECD1A.CH Vial: 58
 Signal #2 : I:\M\DATA\SM0420\M7421.D\ECD2B.CH
 Acq On : 11-2-2014 05:07:15 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:41:10 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:41:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3777758	0.10000	ng
4) I C15(96) #2	20.52	18738277m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2216049m	0.03737	ng
5) C15(101) #2	23.22	14810823m	0.03744	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7367.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0420\M7367.D\ECD2B.CH
 Acq On : 10-31-2014 01:03:20 PM Operator: RR
 Sample : CD582PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:09 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3044845	100.00000	ng
10) I C16(161)	23.21	5449036	100.00000	ng
24) I C15(96) #2	20.51	14993632m	100.00000	ng
33) I C16(161) #2	26.79	30888653	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.39	6908097	312.84882	ng
Spiked Amount	400.0000	Recovery	=	78.21%
11) s C16(152)	20.48	9400224	368.53273	ng
Spiked Amount	401.6000	Recovery	=	91.77%
27) s C13(34) #2	16.47	41048553m	353.15045	ng
Spiked Amount	400.0000	Recovery	=	88.29%
34) s C16(152) #2	23.62	53534968m	323.10625	ng
Spiked Amount	401.6000	Recovery	=	80.45%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7367.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0420\M7367.D\ECD2B.CH
 Acq On : 10-31-2014 01:03:20 PM Operator: RR
 Sample : CD582PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:09 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7368.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0420\M7368.D\ECD2B.CH
 Acq On : 10-31-2014 01:47:51 PM Operator: RR
 Sample : CD583LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:14 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.38	3329406m	100.00000	ng	
10) I C16(161)	23.21	5532874m	100.00000	ng	
24) I C15(96) #2	20.51	15833236m	100.00000	ng	
33) I C16(161) #2	26.79	33282462m	100.00000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	6897243m	274.91606	ng	69%
Spiked Amount	400.0000	Recovery	=	68.73%	
11) s C16(152)	20.48	9563288m	369.41741	ng	92%
Spiked Amount	401.6000	Recovery	=	91.99%	
27) s C13(34) #2	16.48	42516378m	343.56676	ng	86%
Spiked Amount	400.0000	Recovery	=	85.89%	
34) s C16(152) #2	23.62	65737506m	361.47781	ng	90%
Spiked Amount	401.6000	Recovery	=	90.01%	
Target Compounds					
2) C12(8)	10.21	624152	28.97281	ng	77%
3) C13(18)	12.12	835065m	31.13448	ng	83%
5) C13(28)	14.20	1254411m	26.62375	ng	71%
6) C14(52)	15.83	984787m	26.17975	ng	70%
7) C14(44)	16.70	1197174m	24.80818	ng	66%
8) C14(66)	18.60	1437241m	26.72821	ng	71%
9) C15(101)	19.74	1442974m	27.65883	ng	74%
12) C15(118)	22.39	1506856m	36.76114	ng	98%
13) C16(153)	23.44 TW	1181922m	30.28711	ng	81%
14) C15(105)	23.45 TW	1367691m	26.45515	ng	71%
15) C16(138)	24.54	1778751m	35.53416	ng	95%
16) C17(187)	25.29	1521996m	34.71933	ng	93%
17) C16(128)	25.63	1522055m	31.50985	ng	84%
18) C17(180)	27.16	1774362m	34.47196	ng	92%
19) C17(170)	27.96	1976709m	33.95807	ng	91%
20) C18(195)	29.04	1917386m	35.21437	ng	94%
21) C19(206)	30.31	1807712m	34.44542	ng	92%
22) C110(209)	30.90	1571864m	36.74974	ng	98%
25) C12(8) #2	13.10	3363027m	30.96055	ng	83%
26) C13(18) #2	14.99	3964020m	30.74920	ng	82%
28) C13(28) #2	17.76	7010198m	30.09676	ng	80%
29) C14(52) #2	19.15	4289253m	30.75831	ng	82%
30) C14(44) #2	19.96	7680605m	32.45475	ng	87%
31) C14(66) #2	22.36	8424428m	32.17591	ng	86%
32) C15(101) #2	23.24	4653690m	31.21199	ng	83%
35) C15(118) #2	26.35	7077359m	32.57436	ng	87%
36) C16(153) #2	26.93	7522837m	32.97025	ng	88%
37) C15(105) #2	27.20	10472903m	34.66252	ng	92%
38) C16(138) #2	27.78	7557152m	37.24038	ng	99%
39) C17(187) #2	28.14	8099669m	35.53530	ng	95%

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7368.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0420\M7368.D\ECD2B.CH
 Acq On : 10-31-2014 01:47:51 PM Operator: RR
 Sample : CD583LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:14 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	11223273m	35.25865	ng	94%
41)	Cl7(180) #2	29.59	9827999m	34.56202	ng	92%
42)	Cl7(170) #2	30.21	10567251m	34.19286	ng	91%
43)	Cl8(195) #2	31.08	9737360m	34.41872	ng	92%
44)	Cl9(206) #2	32.18	8696491m	34.12442	ng	91%
45)	Cl10(209) #2	32.62	7217329m	36.28705	ng	97%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7369.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0420\M7369.D\ECD2B.CH
 Acq On : 10-31-2014 02:32:30 PM Operator: RR
 Sample : M8156-P(2) Inst : INST. M
 Misc : NBH14-0017 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:18 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:14 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2970953m	95.00000	ng
10) I C16(161)	23.20	5526953m	95.00000	ng
24) I C15(96) #2	20.52	13601396m	95.00000	ng
33) I C16(161) #2	26.79	25848095m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7313424m	336.63507	ng
Spiked Amount	379.8670	Recovery	=	88.62%
11) s C16(152)	20.48	8889518	321.22166	ng
Spiked Amount	381.3865	Recovery	=	84.22%
27) s C13(34) #2	16.48	41767601m	398.86773	ng
Spiked Amount	379.8670	Recovery	=	105.00%
34) s C16(152) #2	23.63	45756488	312.61319	ng
Spiked Amount	381.3865	Recovery	=	81.97%
Target Compounds				
2) C12(8)	10.21	e 4775106	BelowCal	ng
3) C13(18)	12.13	E 10928479	BelowCal	ng
5) C13(28)	14.20	E 79263244	BelowCal	ng
6) C14(52)	15.84	E 38995442	BelowCal	ng
7) C14(44)	16.70	E 18900239	BelowCal	ng
8) C14(66)	18.64	E 38859339	BelowCal	ng
9) C15(101)	19.72	E 26764880	BelowCal	ng
12) C15(118)	22.39	E 28853991	BelowCal	ng
13) C16(153)	23.43	E 35990056	BelowCal	ng
14) C15(105)	23.46	7166271m	160.30800	ng
15) C16(138)	24.53	e 26847284	754.63981	ng
16) C17(187)	25.29	4133354m	96.15802	ng
17) C16(128)	25.63	4982175m	103.59054	ng
18) C17(180)	27.16	5760538m	112.94458	ng
19) C17(170)	27.97	4434921m	75.29021	ng
20) C18(195)	29.04	757609m	12.24493	ng
21) C19(206)	30.31	924552m	16.04716	ng
22) C110(209)	30.90	273514m	4.76446	ng
25) C12(8) #2	13.11	e 24827096	401.81861	ng
26) C13(18) #2	15.00	E 59014643	BelowCal	ng
28) C13(28) #2	17.76	E 265466633	BelowCal	ng
29) C14(52) #2	19.15	E 213362171	BelowCal	ng
30) C14(44) #2	19.96	e 101061279	BelowCal	ng
31) C14(66) #2	22.35	E 160466174	BelowCal	ng
32) C15(101) #2	23.23	E 170986580	945.34679	ng
35) C15(118) #2	26.34	E 150712173	1094.22536	ng
36) C16(153) #2	26.94	E 127905945	719.09579	ng
37) C15(105) #2	27.20	37256883	151.77885	ng
38) C16(138) #2	27.78	e 68801193	360.57273	ng
39) C17(187) #2	28.14	22293850m	123.59237	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7369.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0420\M7369.D\ECD2B.CH
 Acq On : 10-31-2014 02:32:30 PM Operator: RR
 Sample : M8156-P(2) Inst : INST. M
 Misc : NBH14-0017 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:18 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:14 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	28533018m	111.57116	ng
41)	Cl7(180) #2	29.59	28754419m	124.48126	ng
42)	Cl7(170) #2	30.22	20690948m	82.60438	ng
43)	Cl8(195) #2	31.08	3531211m	14.67406	ng
44)	Cl9(206) #2	32.18	3725392m	17.47086	ng
45)	Cl10(209) #2	32.62	1116252m	5.73331	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7370.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0420\M7370.D\ECD2B.CH
 Acq On : 10-31-2014 03:17:03 PM Operator: RR
 Sample : M8158-P(2) Inst : INST. M
 Misc : NBH14-0025 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:22 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3457950	95.00000	ng
10) I C16(161)	23.21	7336190m	95.00000	ng
24) I C15(96) #2	20.52	14417732m	95.00000	ng
33) I C16(161) #2	26.79	30068118m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7814181	295.47590	ng
Spiked Amount	379.8670	Recovery	=	77.78%
11) s C16(152)	20.48	10114611	267.25612	ng
Spiked Amount	381.3865	Recovery	=	70.07%
27) s C13(34) #2	16.48	42139288m	369.36173	ng
Spiked Amount	379.8670	Recovery	=	97.23%
34) s C16(152) #2	23.62	52271417	307.75878	ng
Spiked Amount	381.3865	Recovery	=	80.69%
Target Compounds				
2) C12(8)	10.21	1326818	62.72209	ng
3) C13(18)	12.13	3020420m	128.35464	ng
5) C13(28)	14.19	e 18437473	BelowCal	ng
6) C14(52)	15.83	e 9545495	435.70373	ng
7) C14(44)	16.70	5115438	115.05776	ng
8) C14(66)	18.62	5298685m	103.21315	ng
9) C15(101)	19.72	7819979	157.10293	ng
12) C15(118)	22.39	9760115m	201.36430	ng
13) C16(153)	23.43	10108873m	208.48845	ng
14) C15(105)	23.45	4011674m	60.31992	ng
15) C16(138)	24.53	10608312m	168.99785	ng
16) C17(187)	25.29	1406808	22.17936	ng
17) C16(128)	25.63	2675180	40.10732	ng
18) C17(180)	27.16	2141328m	29.61188	ng
19) C17(170)	27.96	1561109m	18.48507	ng
20) C18(195)	29.04	282972m	2.33677	ng
21) C19(206)	30.30	298560m	2.89961	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	6074493m	62.68279	ng
26) C13(18) #2	14.99	13778990m	139.12494	ng
28) C13(28) #2	17.76	e 58277211	354.55892	ng
29) C14(52) #2	19.15	e 52056640	BelowCal	ng
30) C14(44) #2	19.96	26474828m	131.24261	ng
31) C14(66) #2	22.35	24173813m	105.17525	ng
32) C15(101) #2	23.23	22502863m	163.35384	ng
35) C15(118) #2	26.33	49011951m	269.31978	ng
36) C16(153) #2	26.94	39216554	196.40482	ng
37) C15(105) #2	27.20	19242870	68.16897	ng
38) C16(138) #2	27.78	34292740	169.19954	ng
39) C17(187) #2	28.14	6700811	30.71164	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7370.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0420\M7370.D\ECD2B.CH
 Acq On : 10-31-2014 03:17:03 PM Operator: RR
 Sample : M8158-P(2) Inst : INST. M
 Misc : NBH14-0025 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:22 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	13104413m	43.75182	ng
41)	Cl7(180) #2	29.59	9693411m	35.97233	ng
42)	Cl7(170) #2	30.21	6713849m	22.48941	ng
43)	Cl8(195) #2	31.08	1142632m	3.13509	ng
44)	Cl9(206) #2	32.18	967367m	3.02553	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7371.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0420\M7371.D\ECD2B.CH
 Acq On : 10-31-2014 04:01:30 PM Operator: RR
 Sample : M8163-P(2) Inst : INST. M
 Misc : NBH14-0045 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:26 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3262719m	95.00000	ng
10) I C16(161)	23.21	8389753m	95.00000	ng
24) I C15(96) #2	20.52	14729978	95.00000	ng
33) I C16(161) #2	26.79	27890994m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8624358m	379.27479	ng
Spiked Amount	379.8670	Recovery	=	99.84%
11) s C16(152)	20.48	9971414m	225.03628	ng
Spiked Amount	381.3865	Recovery	=	59.00%
27) s C13(34) #2	16.48	43515502m	375.43413	ng
Spiked Amount	379.8670	Recovery	=	98.83%
34) s C16(152) #2	23.63	47211441m	300.73423	ng
Spiked Amount	381.3865	Recovery	=	78.85%
Target Compounds				
2) C12(8)	10.21	3409985	210.36994	ng
3) C13(18)	12.13	e 8787081	BelowCal	ng
5) C13(28)	14.20	E 58732918	BelowCal	ng
6) C14(52)	15.84	E 27926162	BelowCal	ng
7) C14(44)	16.70	e 13552971	486.22074	ng
8) C14(66)	18.64	E 25444697	BelowCal	ng
9) C15(101)	19.72	e 16759314	447.98898	ng
12) C15(118)	22.40	e 17807868	359.37002	ng
13) C16(153)	23.43	e 21599514	442.81315	ng
14) C15(105)	23.46	5371135m	71.75543	ng
15) C16(138)	24.53	e 15820328	226.47213	ng
16) C17(187)	25.30	2647651	38.26892	ng
17) C16(128)	25.63	3244148	42.62618	ng
18) C17(180)	27.16	3403448m	42.02778	ng
19) C17(170)	27.97	2602509m	27.76255	ng
20) C18(195)	29.04	501418	4.46507	ng
21) C19(206)	30.31	564529m	5.65481	ng
22) C110(209)	30.90	222778m	1.84957	ng
25) C12(8) #2	13.10	15373651m	177.30561	ng
26) C13(18) #2	14.99	e 43540135	BelowCal	ng
28) C13(28) #2	17.76	E 171034014	BelowCal	ng
29) C14(52) #2	19.15	E 139057862	BelowCal	ng
30) C14(44) #2	19.96	e 64322249	399.56239	ng
31) C14(66) #2	22.35	e 94739838	571.43757	ng
32) C15(101) #2	23.23	E 98774275	583.06415	ng
35) C15(118) #2	26.34	e 84198115	519.37951	ng
36) C16(153) #2	26.94	e 70688787	378.55635	ng
37) C15(105) #2	27.20	20219694m	77.24473	ng
38) C16(138) #2	27.78	37238554	195.57702	ng
39) C17(187) #2	28.14	12306101m	62.91355	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7371.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0420\M7371.D\ECD2B.CH
 Acq On : 10-31-2014 04:01:30 PM Operator: RR
 Sample : M8163-P(2) Inst : INST. M
 Misc : NBH14-0045 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:26 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	15440238m	55.91476	ng
41)	Cl7(180) #2	29.59	15429554m	62.42192	ng
42)	Cl7(170) #2	30.22	10745834m	39.62760	ng
43)	Cl8(195) #2	31.08	1984254m	7.02567	ng
44)	Cl9(206) #2	32.18	1932487m	7.83240	ng
45)	Cl10(209) #2	32.62	647256m	2.39676	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7372.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0420\M7372.D\ECD2B.CH
 Acq On : 10-31-2014 04:45:59 PM Operator: RR
 Sample : M8164-P(2) Inst : INST. M
 Misc : NBH14-0049 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:30 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:26 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3135901m	95.00000	ng
10) I C16(161)	23.21	4581626m	95.00000	ng
24) I C15(96) #2	20.52	12791436m	95.00000	ng
33) I C16(161) #2	26.79	23663248m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7299638m	308.75825	ng
Spiked Amount	379.8670	Recovery	=	81.28%
11) s C16(152)	20.48	7484310	327.35704	ng
Spiked Amount	381.3865	Recovery	=	85.83%
27) s C13(34) #2	16.48	35168305m	337.53873	ng
Spiked Amount	379.8670	Recovery	=	88.86%
34) s C16(152) #2	23.63	35119726	268.07402	ng
Spiked Amount	381.3865	Recovery	=	70.29%
Target Compounds				
2) C12(8)	10.21	E 8572916	BelowCal	ng
3) C13(18)	12.13	E 21506147	BelowCal	ng
5) C13(28)	14.20	E 155575721	BelowCal	ng
6) C14(52)	15.84	E 71563953	BelowCal	ng
7) C14(44)	16.70	E 36750821	BelowCal	ng
8) C14(66)	18.63	E 36445820m	BelowCal	ng
9) C15(101)	19.72	E 44990134	BelowCal	ng
12) C15(118)	22.40	E 46958289	BelowCal	ng
13) C16(153)	23.43	E 58900536	BelowCal	ng
14) C15(105)	23.48	7537017m	215.33387	ng
15) C16(138)	24.54	E 43846769	BelowCal	ng
16) C17(187)	25.30	6700789m	198.66270	ng
17) C16(128)	25.63	7650585m	203.62147	ng
18) C17(180)	27.16	10010740	247.14405	ng
19) C17(170)	27.97	7520285m	158.96402	ng
20) C18(195)	29.04	1333031	27.80628	ng
21) C19(206)	30.31	1310845m	28.46306	ng
22) C110(209)	30.91	383860m	9.13392	ng
25) C12(8) #2	13.10	e 40641344	BelowCal	ng
26) C13(18) #2	14.99	E 98478262	BelowCal	ng
28) C13(28) #2	17.76	E 414139412	BelowCal	ng
29) C14(52) #2	19.15	E 325957116	BelowCal	ng
30) C14(44) #2	19.96	E 169949371	BelowCal	ng
31) C14(66) #2	22.35	E 238164905	BelowCal	ng
32) C15(101) #2	23.23	E 251283629	1302.44211	ng
35) C15(118) #2	26.34	E 213776704	1950.15020	ng
36) C16(153) #2	26.94	E 185748669	1103.24554	ng
37) C15(105) #2	27.21	50034722	218.86142	ng
38) C16(138) #2	27.78	e 94598891	507.11816	ng
39) C17(187) #2	28.14	33085684	198.22279	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7372.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0420\M7372.D\ECD2B.CH
 Acq On : 10-31-2014 04:45:59 PM Operator: RR
 Sample : M8164-P(2) Inst : INST. M
 Misc : NBH14-0049 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:30 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:26 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	40714393	171.81522	ng
41)	Cl7(180) #2	29.59	44070257m	203.71744	ng
42)	Cl7(170) #2	30.22	30448937	131.33001	ng
43)	Cl8(195) #2	31.09	5913712	27.79479	ng
44)	Cl9(206) #2	32.18	5166605m	26.95824	ng
45)	Cl10(209) #2	32.62	1606118m	9.84775	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7373.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0420\M7373.D\ECD2B.CH
 Acq On : 10-31-2014 05:30:25 PM Operator: RR
 Sample : M8165-P(2) Inst : INST. M
 Misc : NBH14-0053 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:35 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:30 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2889280m	95.00000	ng
10) I C16(161)	23.21	4967334m	95.00000	ng
24) I C15(96) #2	20.52	14490294m	95.00000	ng
33) I C16(161) #2	26.79	28235818m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6975195m	326.46052	ng
Spiked Amount	379.8670	Recovery	=	85.94%
11) s C16(152)	20.48	8401367	341.63251	ng
Spiked Amount	381.3865	Recovery	=	89.58%
27) s C13(34) #2	16.48	38961036	326.99062	ng
Spiked Amount	379.8670	Recovery	=	86.08%
34) s C16(152) #2	23.62	44952035m	285.09554	ng
Spiked Amount	381.3865	Recovery	=	74.75%
Target Compounds				
2) C12(8)	10.21	3317216m	240.52688	ng
3) C13(18)	12.13	e 7831212	BelowCal	ng
5) C13(28)	14.20	E 48831850	BelowCal	ng
6) C14(52)	15.83	E 23097703	BelowCal	ng
7) C14(44)	16.70	e 9371642	307.97973	ng
8) C14(66)	18.62	9381143m	253.72333	ng
9) C15(101)	19.72	e 13238808	376.49630	ng
12) C15(118)	22.39	e 14148507	566.66811	ng
13) C16(153)	23.43	e 18958210	868.18010	ng
14) C15(105)	23.46	3353158m	76.08544	ng
15) C16(138)	24.53	14068338	362.01937	ng
16) C17(187)	25.29	2480974	62.55596	ng
17) C16(128)	25.63	2924429	66.06319	ng
18) C17(180)	27.16	3098492m	66.04246	ng
19) C17(170)	27.96	2346308m	43.29864	ng
20) C18(195)	29.04	440679m	7.37538	ng
21) C19(206)	30.31	485008m	8.80396	ng
22) C110(209)	30.90	154637m	2.43089	ng
25) C12(8) #2	13.10	16375515m	195.82791	ng
26) C13(18) #2	14.99	e 39932130	BelowCal	ng
28) C13(28) #2	17.76	E 154270118	BelowCal	ng
29) C14(52) #2	19.15	E 127346627	BelowCal	ng
30) C14(44) #2	19.96	49980063	281.74337	ng
31) C14(66) #2	22.35	49811729m	236.77748	ng
32) C15(101) #2	23.23	47165395m	318.39654	ng
35) C15(118) #2	26.34	e 78646334	476.04353	ng
36) C16(153) #2	26.94	e 71766317	379.60569	ng
37) C15(105) #2	27.20	19468372	73.46370	ng
38) C16(138) #2	27.78	38619756	199.93372	ng
39) C17(187) #2	28.14	13125385	66.36625	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7373.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0420\M7373.D\ECD2B.CH
 Acq On : 10-31-2014 05:30:25 PM Operator: RR
 Sample : M8165-P(2) Inst : INST. M
 Misc : NBH14-0053 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:35 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:30 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	16719414m	59.87550	ng
41)	Cl7(180) #2	29.59	17062759m	68.20702	ng
42)	Cl7(170) #2	30.22	11704393m	42.69861	ng
43)	Cl8(195) #2	31.08	2197001m	7.80664	ng
44)	Cl9(206) #2	32.18	2034733m	8.19108	ng
45)	Cl10(209) #2	32.62	686606m	2.58234	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7374.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0420\M7374.D\ECD2B.CH
 Acq On : 10-31-2014 06:14:54 PM Operator: RR
 Sample : M8166-P(2) Inst : INST. M
 Misc : NBH14-0061 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3598343m	95.00000	ng
10) I C16(161)	23.21	8569371m	95.00000	ng
24) I C15(96) #2	20.52	15090254m	95.00000	ng
33) I C16(161) #2	26.79	31678881m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9561946m	382.86387	ng
Spiked Amount	379.8670	Recovery	=	100.79%
11) s C16(152)	20.48	12450592	284.30546	ng
Spiked Amount	381.3865	Recovery	=	74.55%
27) s C13(34) #2	16.48	46259479m	397.76578	ng
Spiked Amount	379.8670	Recovery	=	104.71%
34) s C16(152) #2	23.62	56855513	316.34687	ng
Spiked Amount	381.3865	Recovery	=	82.95%
Target Compounds				
2) C12(8)	10.21	1959531m	93.78766	ng
3) C13(18)	12.13	e 4710823	217.68658	ng
5) C13(28)	14.20	E 32631100	BelowCal	ng
6) C14(52)	15.83	E 16770226	BelowCal	ng
7) C14(44)	16.70	6802147m	153.00740	ng
8) C14(66)	18.63	7712356m	151.61955	ng
9) C15(101)	19.71	9644912	190.95192	ng
12) C15(118)	22.39	9920824	171.54367	ng
13) C16(153)	23.42	10865013m	189.97422	ng
14) C15(105)	23.46	2912422m	35.78407	ng
15) C16(138)	24.53	10640022	143.24599	ng
16) C17(187)	25.29	2133771m	29.59120	ng
17) C16(128)	25.62	2207516	27.96090	ng
18) C17(180)	27.16	2326793m	27.39801	ng
19) C17(170)	27.96	1804088m	18.26953	ng
20) C18(195)	29.04	344285m	2.49779	ng
21) C19(206)	30.31	363418m	3.07690	ng
22) C110(209)	30.90	123641m	0.31068	ng
25) C12(8) #2	13.10	8460029m	86.08065	ng
26) C13(18) #2	14.99	21341811m	227.26328	ng
28) C13(28) #2	17.76	e 89107196	BelowCal	ng
29) C14(52) #2	19.15	E 83632079	BelowCal	ng
30) C14(44) #2	19.96	33235515	161.68691	ng
31) C14(66) #2	22.34	33511233m	143.30190	ng
32) C15(101) #2	23.23	26437666m	182.02237	ng
35) C15(118) #2	26.33	47792122m	248.28768	ng
36) C16(153) #2	26.94	46380934	220.43172	ng
37) C15(105) #2	27.20	11484896	38.16605	ng
38) C16(138) #2	27.78	22994027m	110.68165	ng
39) C17(187) #2	28.14	8470176m	37.32050	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7374.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0420\M7374.D\ECD2B.CH
 Acq On : 10-31-2014 06:14:54 PM Operator: RR
 Sample : M8166-P(2) Inst : INST. M
 Misc : NBH14-0061 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	9844973m	30.73467	ng
41)	Cl7(180) #2	29.59	10168670m	35.81153	ng
42)	Cl7(170) #2	30.22	7360715m	23.45431	ng
43)	Cl8(195) #2	31.08	1256442m	3.33031	ng
44)	Cl9(206) #2	32.18	1180674m	3.68680	ng
45)	Cl10(209) #2	32.62	343183m	0.32710	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7375.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0420\M7375.D\ECD2B.CH
 Acq On : 10-31-2014 06:59:18 PM Operator: RR
 Sample : M8166DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0061 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:43 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3190390m	95.00000	ng
10) I C16(161)	23.21	7781021m	95.00000	ng
24) I C15(96) #2	20.52	15038630m	95.00000	ng
33) I C16(161) #2	26.79	38922832	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8564177m	389.93887	ng
Spiked Amount	379.8670	Recovery	=	102.65%
11) s C16(152)	20.48	11165939	280.16110	ng
Spiked Amount	381.3865	Recovery	=	73.46%
27) s C13(34) #2	16.48	45224227m	385.89135	ng
Spiked Amount	379.8670	Recovery	=	101.59%
34) s C16(152) #2	23.62	56238544	261.80585	ng
Spiked Amount	381.3865	Recovery	=	68.65%
Target Compounds				
2) C12(8)	10.21	1548615m	82.09991	ng
3) C13(18)	12.13	3841063	193.67505	ng
5) C13(28)	14.20	E 27006971	BelowCal	ng
6) C14(52)	15.83	E 14183581	BelowCal	ng
7) C14(44)	16.70	5763603	145.02975	ng
8) C14(66)	18.64	7351924m	165.18466	ng
9) C15(101)	19.71	7977933	176.20660	ng
12) C15(118)	22.39	7914182	148.15648	ng
13) C16(153)	23.43	8638155m	164.08093	ng
14) C15(105)	23.46	2296092m	30.61302	ng
15) C16(138)	24.53	8509174	124.94316	ng
16) C17(187)	25.29	1682704	25.34591	ng
17) C16(128)	25.63	1714986	23.77678	ng
18) C17(180)	27.16	1908377	24.54589	ng
19) C17(170)	27.96	1438868m	15.83759	ng
20) C18(195)	29.04	270697m	1.95710	ng
21) C19(206)	30.30	264490m	2.20542	ng
22) C110(209)	30.90	96647m	0.05606	ng
25) C12(8) #2	13.11	7269999m	72.98293	ng
26) C13(18) #2	14.99	19005567m	196.25087	ng
28) C13(28) #2	17.76	e 86353361	BelowCal	ng
29) C14(52) #2	19.15	E 76309396	BelowCal	ng
30) C14(44) #2	19.96	30301125	145.88288	ng
31) C14(66) #2	22.34	31853528m	135.96067	ng
32) C15(101) #2	23.23	25747368m	178.15576	ng
35) C15(118) #2	26.33	44460771m	185.54147	ng
36) C16(153) #2	26.94	42969003	166.13722	ng
37) C15(105) #2	27.20	10249502	27.29381	ng
38) C16(138) #2	27.78	20525443	81.41456	ng
39) C17(187) #2	28.14	8644624	30.59894	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7375.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0420\M7375.D\ECD2B.CH
 Acq On : 10-31-2014 06:59:18 PM Operator: RR
 Sample : M8166DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0061 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:43 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	9716345m	24.33091	ng
41)	Cl7(180) #2	29.58	9462159m	26.76709	ng
42)	Cl7(170) #2	30.22	7023771	17.92122	ng
43)	Cl8(195) #2	31.08	1470283m	3.10838	ng
44)	Cl9(206) #2	32.18	1188936m	2.81446	ng
45)	Cl10(209) #2	32.62	396583m	0.21927	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7376.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0420\M7376.D\ECD2B.CH
 Acq On : 10-31-2014 07:43:57 PM Operator: RR
 Sample : M8347-P(2) Inst : INST. M
 Misc : NBH14-0057 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:42 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3398551m	95.00000	ng
10) I C16(161)	23.21	8055989m	95.00000	ng
24) I C15(96) #2	20.52	15534742m	95.00000	ng
33) I C16(161) #2	26.79	33866995m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9057413	384.87368	ng
Spiked Amount	379.8670	Recovery	=	101.32%
11) s C16(152)	20.48	11226563	270.63878	ng
Spiked Amount	381.3865	Recovery	=	70.96%
27) s C13(34) #2	16.48	47943367m	402.07664	ng
Spiked Amount	379.8670	Recovery	=	105.85%
34) s C16(152) #2	23.63	58464314	305.89791	ng
Spiked Amount	381.3865	Recovery	=	80.21%
Target Compounds				
2) C12(8)	10.21	1887669	95.97060	ng
3) C13(18)	12.13	e 4712665m	236.80032	ng
5) C13(28)	14.20	E 30100655	BelowCal	ng
6) C14(52)	15.83	E 15619604	BelowCal	ng
7) C14(44)	16.70	5328498	122.99389	ng
8) C14(66)	18.63	6794944m	139.80270	ng
9) C15(101)	19.71	8673814	180.40361	ng
12) C15(118)	22.39	8971561m	164.13356	ng
13) C16(153)	23.43	10457727m	195.02370	ng
14) C15(105)	23.46	2345568m	30.16131	ng
15) C16(138)	24.53	9270351	131.97559	ng
16) C17(187)	25.29	1692527m	24.54856	ng
17) C16(128)	25.63	1782698m	23.87580	ng
18) C17(180)	27.16	2071094m	25.82975	ng
19) C17(170)	27.96	1610685m	17.26335	ng
20) C18(195)	29.04	304146	2.25466	ng
21) C19(206)	30.31	418357	4.06320	ng
22) C110(209)	30.90	111304m	0.23305	ng
25) C12(8) #2	13.11	9172944m	91.23636	ng
26) C13(18) #2	14.99	26964615	303.94502	ng
28) C13(28) #2	17.76	e 94778452	BelowCal	ng
29) C14(52) #2	19.15	E 86925908	BelowCal	ng
30) C14(44) #2	19.96	27447426m	125.65325	ng
31) C14(66) #2	22.35	33198320m	137.30909	ng
32) C15(101) #2	23.23	27509077m	183.84368	ng
35) C15(118) #2	26.33	50096653	243.20776	ng
36) C16(153) #2	26.94	47917115	213.04265	ng
37) C15(105) #2	27.20	11071211m	34.26946	ng
38) C16(138) #2	27.78	22940099	103.61271	ng
39) C17(187) #2	28.14	9398607	38.82242	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7376.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0420\M7376.D\ECD2B.CH
 Acq On : 10-31-2014 07:43:57 PM Operator: RR
 Sample : M8347-P(2) Inst : INST. M
 Misc : NBH14-0057 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:42 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	10451167m	30.50684	ng
41)	Cl7(180) #2	29.58	10761528m	35.43728	ng
42)	Cl7(170) #2	30.22	7431828m	22.07984	ng
43)	Cl8(195) #2	31.08	1345952m	3.33977	ng
44)	Cl9(206) #2	32.18	1311264m	3.87458	ng
45)	Cl10(209) #2	32.62	345342m	0.22062	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7378.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0420\M7378.D\ECD2B.CH
 Acq On : 10-31-2014 09:12:51 PM Operator: RR
 Sample : M8348-P(2) Inst : INST. M
 Misc : NBH14-0069 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:55 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3751008	95.00000	ng
10) I C16(161)	23.21	7641392	95.00000	ng
24) I C15(96) #2	20.52	16746505m	95.00000	ng
33) I C16(161) #2	26.79	39435531m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9045541m	325.89874	ng
Spiked Amount	379.8670	Recovery	=	85.79%
11) s C16(152)	20.48	12460849	326.66076	ng
Spiked Amount	381.3865	Recovery	=	85.65%
27) s C13(34) #2	16.48	48060641m	359.38132	ng
Spiked Amount	379.8670	Recovery	=	94.61%
34) s C16(152) #2	23.63	64666168	292.54461	ng
Spiked Amount	381.3865	Recovery	=	76.71%
Target Compounds				
2) C12(8)	10.21	495996	18.07016	ng
3) C13(18)	12.13	1242193	41.11330	ng
5) C13(28)	14.20	4666790m	94.18985	ng
6) C14(52)	15.83	4635783m	136.21617	ng
7) C14(44)	16.70	1947652	35.75379	ng
8) C14(66)	18.63	2292298m	37.40521	ng
9) C15(101)	19.71	2764796	46.45949	ng
12) C15(118)	22.39	2691460	46.33564	ng
13) C16(153)	23.42	3320381m	60.46997	ng
14) C15(105)	23.46	767194m	8.64657	ng
15) C16(138)	24.52	3004103m	41.94208	ng
16) C17(187)	25.29	637512m	8.26933	ng
17) C16(128)	25.62	677521	9.10585	ng
18) C17(180)	27.16	680243m	7.66049	ng
19) C17(170)	27.96	540314m	5.02507	ng
20) C18(195)	29.04	101882m	BelowCal	ng
21) C19(206)	30.31	113027m	0.21883	ng
22) C110(209)	30.90	27981m	BelowCal	ng
25) C12(8) #2	13.11	2345769m	18.34331	ng
26) C13(18) #2	14.99	6377837m	47.91547	ng
28) C13(28) #2	17.76	23170030m	98.12480	ng
29) C14(52) #2	19.15	24279771m	194.97210	ng
30) C14(44) #2	19.96	10318847m	39.90133	ng
31) C14(66) #2	22.35	10819291m	37.69903	ng
32) C15(101) #2	23.23	7158949m	44.69561	ng
35) C15(118) #2	26.34	14753106m	57.34439	ng
36) C16(153) #2	26.94	15508424	57.27974	ng
37) C15(105) #2	27.20	3607649m	8.27653	ng
38) C16(138) #2	27.78	7812140	30.81584	ng
39) C17(187) #2	28.14	5016239m	16.43580	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7378.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0420\M7378.D\ECD2B.CH
 Acq On : 10-31-2014 09:12:51 PM Operator: RR
 Sample : M8348-P(2) Inst : INST. M
 Misc : NBH14-0069 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:22:55 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3986423m	8.66406	ng
41)	Cl7(180) #2	29.59	3439631m	8.48082	ng
42)	Cl7(170) #2	30.22	2447485m	5.21365	ng
43)	Cl8(195) #2	31.08	417339m	BelowCal	ng
44)	Cl9(206) #2	32.18	417107m	0.22027	ng
45)	Cl10(209) #2	32.64	200475m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7379.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0420\M7379.D\ECD2B.CH
 Acq On : 10-31-2014 09:57:14 PM Operator: RR
 Sample : M8355-P(2) Inst : INST. M
 Misc : NBH14-0203 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:00 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.41	2995612m	95.00000	ng
10) I C16(161)	23.21	8788341m	95.00000	ng
24) I C15(96) #2	20.52	34038957m	95.00000	ng
33) I C16(161) #2	26.80	23315495	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	18017489m	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.49	10076816	215.99978	ng
Spiked Amount	381.3865	Recovery	=	56.64%
27) s C13(34) #2	16.48	77840607m	262.85434	ng
Spiked Amount	379.8670	Recovery	=	69.20%
34) s C16(152) #2	23.63	40153461m	305.26686	ng
Spiked Amount	381.3865	Recovery	=	80.04%
Target Compounds				
2) C12(8)	10.22	E 198412627	BelowCal	ng
3) C13(18)	12.14	E 461654153	BelowCal	ng
5) C13(28)	14.23	E 1248497850	BelowCal	ng
6) C14(52)	15.86	E 716654663	BelowCal	ng
7) C14(44)	16.71	E 175933460	BelowCal	ng
8) C14(66)	18.57	E 97980355	BelowCal	ng
9) C15(101)	19.72	E 97502416	BelowCal	ng
12) C15(118)	22.34	E 234220377	BelowCal	ng
13) C16(153)	23.44	E 126428631	BelowCal	ng
14) C15(105)	23.48	10453081m	144.69315	ng
15) C16(138)	24.53	E 92474710	BelowCal	ng
16) C17(187)	25.30	E 31336797	583.24731	ng
17) C16(128)	25.64	9096437	120.13493	ng
18) C17(180)	27.17	e 24394254	320.55248	ng
19) C17(170)	27.97	e 18476060m	206.49670	ng
20) C18(195)	29.05	4147837	46.24512	ng
21) C19(206)	30.32	5986883m	70.27839	ng
22) C110(209)	30.91	1400727m	18.81113	ng
25) C12(8) #2	13.11	E 745413482	BelowCal	ng
26) C13(18) #2	15.01	E 1656718349	BelowCal	ng
28) C13(28) #2	17.78	E 2760865614	BelowCal	ng
29) C14(52) #2	19.16	E 2674076924	BelowCal	ng
30) C14(44) #2	19.96	E 696785977	BelowCal	ng
31) C14(66) #2	22.33	E 505424267	BelowCal	ng
32) C15(101) #2	23.23	E 456705596	991.70818	ng
35) C15(118) #2	26.34	E 242287140	2463.80093	ng
36) C16(153) #2	26.94	E 457056202	2459.37575	ng
37) C15(105) #2	27.21	31378289	142.03205	ng
38) C16(138) #2	27.79	e 84833732	469.27511	ng
39) C17(187) #2	28.14	E 128687395	701.82901	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7379.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0420\M7379.D\ECD2B.CH
 Acq On : 10-31-2014 09:57:14 PM Operator: RR
 Sample : M8355-P(2) Inst : INST. M
 Misc : NBH14-0203 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:00 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	39075149m	167.52475	ng
41)	Cl7(180) #2	29.59	e 116392224	497.26546	ng
42)	Cl7(170) #2	30.22	61994814	260.78908	ng
43)	Cl8(195) #2	31.09	17199977m	82.72392	ng
44)	Cl9(206) #2	32.19	23468027m	123.76292	ng
45)	Cl10(209) #2	32.63	4290681m	29.07655	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7380.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0420\M7380.D\ECD2B.CH
 Acq On : 31 Oct 2014 10:41 pm Operator: RR
 Sample : M8358-P(2) Inst : INST. M
 Misc : NBH14-0215 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:04 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2680242m	95.00000	ng
10) I C16(161)	23.20	6090720m	95.00000	ng
24) I C15(96) #2	20.52	15082738m	95.00000	ng
33) I C16(161) #2	26.79	29331208	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9373558m	BelowCal	ng
Spiked Amount	379.8670	Recovery	=	0.00%
11) s C16(152)	20.48	10723183	359.09969	ng
Spiked Amount	381.3865	Recovery	=	94.16%
27) s C13(34) #2	16.48	47048610m	409.10538	ng
Spiked Amount	379.8670	Recovery	=	107.70%
34) s C16(152) #2	23.63	51959906	312.80850	ng
Spiked Amount	381.3865	Recovery	=	82.02%
Target Compounds				
2) C12(8)	10.21	e 5671930	BelowCal	ng
3) C13(18)	12.13	E 13899977	BelowCal	ng
5) C13(28)	14.20	E 122433668	BelowCal	ng
6) C14(52)	15.84	E 67229953	BelowCal	ng
7) C14(44)	16.70	E 30604270	BelowCal	ng
8) C14(66)	18.65	E 50524194	BelowCal	ng
9) C15(101)	19.72	E 30904717	BelowCal	ng
12) C15(118)	22.39	E 28562797	BelowCal	ng
13) C16(153)	23.43	E 46496965	BelowCal	ng
14) C15(105)	23.47	6856404m	135.65503	ng
15) C16(138)	24.53	E 36190672	BelowCal	ng
16) C17(187)	25.30	6948977m	151.37733	ng
17) C16(128)	25.63	6604208m	126.31489	ng
18) C17(180)	27.16	8762579m	158.43268	ng
19) C17(170)	27.97	6322204m	98.43508	ng
20) C18(195)	29.04	1636058	25.54102	ng
21) C19(206)	30.31	3029411m	50.71863	ng
22) C110(209)	30.90	511840m	9.16625	ng
25) C12(8) #2	13.10	e 29349982	468.49906	ng
26) C13(18) #2	14.99	E 67049061	BelowCal	ng
28) C13(28) #2	17.76	E 347264623	BelowCal	ng
29) C14(52) #2	19.15	E 322155920	BelowCal	ng
30) C14(44) #2	19.96	E 147990516	BelowCal	ng
31) C14(66) #2	22.33	E 180947667	BelowCal	ng
32) C15(101) #2	23.23	E 184363011	925.93228	ng
35) C15(118) #2	26.34	E 159127331	1004.15934	ng
36) C16(153) #2	26.94	E 167117031	820.73079	ng
37) C15(105) #2	27.20	36037201	130.00100	ng
38) C16(138) #2	27.78	e 78908291	363.87830	ng
39) C17(187) #2	28.14	35930858m	174.38882	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7380.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0420\M7380.D\ECD2B.CH
 Acq On : 31 Oct 2014 10:41 pm Operator: RR
 Sample : M8358-P(2) Inst : INST. M
 Misc : NBH14-0215 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:04 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:22:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	37264130m	128.05720	ng
41)	Cl7(180) #2	29.59	45577509m	171.63592	ng
42)	Cl7(170) #2	30.22	29489209	103.33821	ng
43)	Cl8(195) #2	31.09	7671232	29.13320	ng
44)	Cl9(206) #2	32.18	13110693m	55.76441	ng
45)	Cl10(209) #2	32.62	2228096m	11.19376	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7381.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0420\M7381.D\ECD2B.CH
 Acq On : 31 Oct 2014 11:26 pm Operator: RR
 Sample : M8359-P(2) Inst : INST. M
 Misc : NBH14-0219 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:07 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.38	3315182m	95.00000	ng
10) I C16(161)	23.21	5136392m	95.00000	ng
24) I C15(96) #2	20.52	15174739	95.00000	ng
33) I C16(161) #2	26.79	27640216	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9220992	417.21621	ng
Spiked Amount	379.8670	Recovery	=	109.83%
11) s C16(152)	20.49	10046835	410.72328	ng
Spiked Amount	381.3865	Recovery	=	107.69%
27) s C13(34) #2	16.48	44765122	374.61075	ng
Spiked Amount	379.8670	Recovery	=	98.62%
34) s C16(152) #2	23.63	45739684	294.87706	ng
Spiked Amount	381.3865	Recovery	=	77.32%
Target Compounds				
2) C12(8)	10.21	e 6230933	BelowCal	ng
3) C13(18)	12.13	E 14430461	BelowCal	ng
5) C13(28)	14.20	E 126267440	BelowCal	ng
6) C14(52)	15.84	E 65192850	BelowCal	ng
7) C14(44)	16.70	E 29046669	BelowCal	ng
8) C14(66)	18.65	E 50530372	BelowCal	ng
9) C15(101)	19.72	E 31429608	BelowCal	ng
12) C15(118)	22.39	E 30636887	BelowCal	ng
13) C16(153)	23.43	E 46127877	BelowCal	ng
14) C15(105)	23.47	5361608m	124.28920	ng
15) C16(138)	24.53	E 35504656	BelowCal	ng
16) C17(187)	25.30	6563807	171.27045	ng
17) C16(128)	25.63	6667583	153.68840	ng
18) C17(180)	27.16	8129892	175.24128	ng
19) C17(170)	27.97	6163709m	114.50605	ng
20) C18(195)	29.04	1163662	21.28119	ng
21) C19(206)	30.31	1380213m	26.64084	ng
22) C110(209)	30.91	400344m	8.38898	ng
25) C12(8) #2	13.10	e 29861497	484.96152	ng
26) C13(18) #2	15.00	E 65714238	BelowCal	ng
28) C13(28) #2	17.76	E 333068710	BelowCal	ng
29) C14(52) #2	19.15	E 293059018	BelowCal	ng
30) C14(44) #2	19.96	E 131025800	BelowCal	ng
31) C14(66) #2	22.33	E 172137229	BelowCal	ng
32) C15(101) #2	23.23	E 172253319	876.28827	ng
35) C15(118) #2	26.34	E 153179099	1029.78608	ng
36) C16(153) #2	26.94	E 157773167	822.14489	ng
37) C15(105) #2	27.21	32255728	123.63623	ng
38) C16(138) #2	27.78	e 72259908	355.04984	ng
39) C17(187) #2	28.14	28793410	148.86358	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7381.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0420\M7381.D\ECD2B.CH
 Acq On : 31 Oct 2014 11:26 pm Operator: RR
 Sample : M8359-P(2) Inst : INST. M
 Misc : NBH14-0219 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:07 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	33403011m	121.94366	ng
41)	Cl7(180) #2	29.59	39038164m	156.68396	ng
42)	Cl7(170) #2	30.22	27981099	104.03581	ng
43)	Cl8(195) #2	31.09	5741986	22.92783	ng
44)	Cl9(206) #2	32.18	5375500m	23.91580	ng
45)	Cl10(209) #2	32.62	1408607m	7.03043	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7382.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0420\M7382.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:10 am Operator: RR
 Sample : M8365-P(2) Inst : INST. M
 Misc : NBH14-0234 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:11 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3821195	95.00000	ng
10) I C16(161)	23.21	7831186	95.00000	ng
24) I C15(96) #2	20.51	15956584m	95.00000	ng
33) I C16(161) #2	26.79	37894546m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9649229	350.82172	ng
Spiked Amount	379.8670	Recovery	=	92.35%
11) s C16(152)	20.48	13199210	340.17368	ng
Spiked Amount	381.3865	Recovery	=	89.19%
27) s C13(34) #2	16.48	46744117m	370.64919	ng
Spiked Amount	379.8670	Recovery	=	97.57%
34) s C16(152) #2	23.62	62856516	295.48121	ng
Spiked Amount	381.3865	Recovery	=	77.48%
Target Compounds				
2) C12(8)	10.21	23670m	BelowCal	ng
3) C13(18)	12.12	36102	BelowCal	ng
5) C13(28)	14.20	158904m	0.66371	ng
6) C14(52)	15.84	178095m	BelowCal	ng
7) C14(44)	16.70	66900	BelowCal	ng
8) C14(66)	18.60	174573m	0.29995	ng
9) C15(101)	19.72	187571	1.45274	ng
12) C15(118)	22.39	238087m	1.25228	ng
13) C16(153)	23.42	255278m	3.48414	ng
14) C15(105)	23.45	89811m	BelowCal	ng
15) C16(138)	24.53	270131m	1.48801	ng
16) C17(187)	25.29	49880	BelowCal	ng
17) C16(128)	25.62	48903m	0.04082	ng
18) C17(180)	27.15	31826m	BelowCal	ng
19) C17(170)	27.96	29857m	BelowCal	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	73202m	BelowCal	ng
26) C13(18) #2	15.00	145757m	BelowCal	ng
28) C13(28) #2	17.76	605421m	0.62923	ng
29) C14(52) #2	19.15	564327m	1.56318	ng
30) C14(44) #2	19.96	271567m	BelowCal	ng
31) C14(66) #2	22.35	587602m	0.25667	ng
32) C15(101) #2	23.23	785589m	1.39915	ng
35) C15(118) #2	26.33	1186174m	1.51199	ng
36) C16(153) #2	26.93	1224240m	1.08242	ng
37) C15(105) #2	27.20	387648	BelowCal	ng
38) C16(138) #2	27.77	644004m	1.75393	ng
39) C17(187) #2	28.14	208377	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7382.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0420\M7382.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:10 am Operator: RR
 Sample : M8365-P(2) Inst : INST. M
 Misc : NBH14-0234 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:11 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	366867m	BelowCal	ng
41)	Cl7(180) #2	29.58	181046m	BelowCal	ng
42)	Cl7(170) #2	30.21	107026m	BelowCal	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7383.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0420\M7383.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:55 am Operator: RR
 Sample : M8365MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0234 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:29:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:29:26 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3843951	100.00000	ng
10) I C16(161)	23.21	7749962	100.00000	ng
24) I C15(96) #2	20.51	15872934m	100.00000	ng
33) I C16(161) #2	26.79	36512169m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9395616	350.38971	ng
Spiked Amount	400.0000	Recovery	=	87.60%
11) s C16(152)	20.48	13130231	360.37697	ng
Spiked Amount	401.6000	Recovery	=	89.74%
27) s C13(34) #2	16.48	44383273m	364.08084	ng
Spiked Amount	400.0000	Recovery	=	91.02%
34) s C16(152) #2	23.62	54821750m	285.07988	ng
Spiked Amount	401.6000	Recovery	=	70.99%
Target Compounds				
2) C12(8)	10.21	1117576	48.12097	ng
3) C13(18)	12.13	1405312	48.57573	ng
5) C13(28)	14.21	2689875	52.63508	ng
6) C14(52)	15.83	1973144	51.18314	ng
7) C14(44)	16.70	2608508m	50.70648	ng
8) C14(66)	18.60	2949758	50.59167	ng
9) C15(101)	19.74	2966553m	51.36566	ng
12) C15(118)	22.39	3232848	58.66037	ng
13) C16(153)	23.44 TW	2823771m	52.94520	ng
14) C15(105)	23.45 TW	3669447m	54.21086	ng
15) C16(138)	24.54	3949867	58.28208	ng
16) C17(187)	25.29	3336262	56.19958	ng
17) C16(128)	25.63	2862391m	42.78192	ng
18) C17(180)	27.16	3937858m	56.07583	ng
19) C17(170)	27.96	4326154m	54.28796	ng
20) C18(195)	29.04	4231892m	56.66672	ng
21) C19(206)	30.31	3908048m	54.15566	ng
22) C110(209)	30.90	3264167m	55.59541	ng
25) C12(8) #2	13.11	5344282m	51.53695	ng
26) C13(18) #2	14.99	6334731m	53.24280	ng
28) C13(28) #2	17.76	12393105m	55.56508	ng
29) C14(52) #2	19.14	7514722m	56.96496	ng
30) C14(44) #2	19.96	14718256m	65.20151	ng
31) C14(66) #2	22.36	13985999m	55.36961	ng
32) C15(101) #2	23.24	7729118m	54.01071	ng
35) C15(118) #2	26.35	12584669m	55.28201	ng
36) C16(153) #2	26.94	13389938	55.96826	ng
37) C15(105) #2	27.20	18288324m	55.99929	ng
38) C16(138) #2	27.78	12351729m	55.46810	ng
39) C17(187) #2	28.14	14128913	57.85464	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7383.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0420\M7383.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:55 am Operator: RR
 Sample : M8365MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0234 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:29:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:29:26 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	19515547m	56.78799	ng
41)	Cl7(180) #2	29.58	17478725m	56.78039	ng
42)	Cl7(170) #2	30.22	18631628m	55.48149	ng
43)	Cl8(195) #2	31.09	17250129m	55.95649	ng
44)	Cl9(206) #2	32.18	14727478m	52.96422	ng
45)	Cl10(209) #2	32.62	11874304m	54.91812	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7384.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0420\M7384.D\ECD2B.CH
 Acq On : 11-1-2014 01:39:39 AM Operator: RR
 Sample : M8365MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0234 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:30:07 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:30:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3569199	100.00000	ng
10) I C16(161)	23.21	6782213	100.00000	ng
24) I C15(96) #2	20.52	16200820m	100.00000	ng
33) I C16(161) #2	26.79	36953227	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8327399	326.13609	ng
Spiked Amount	400.0000	Recovery	=	81.53%
11) s C16(152)	20.48	11593800	364.38328	ng
Spiked Amount	401.6000	Recovery	=	90.73%
27) s C13(34) #2	16.48	43376672m	342.15549	ng
Spiked Amount	400.0000	Recovery	=	85.54%
34) s C16(152) #2	23.62	60607017m	307.99179	ng
Spiked Amount	401.6000	Recovery	=	76.69%
Target Compounds				
2) C12(8)	10.21	977507	44.94333	ng
3) C13(18)	12.13	1246425	46.04843	ng
5) C13(28)	14.21	2306221	48.24155	ng
6) C14(52)	15.83	1712298	47.25455	ng
7) C14(44)	16.70	2261182m	46.98155	ng
8) C14(66)	18.60	2505431	45.87149	ng
9) C15(101)	19.73	2787835m	52.02972	ng
12) C15(118)	22.39	2754307	56.97197	ng
13) C16(153)	23.44 TW	2559039m	54.91456	ng
14) C15(105)	23.45 TW	3235235m	54.65529	ng
15) C16(138)	24.54	3301847	55.50209	ng
16) C17(187)	25.29	2788618	53.50955	ng
17) C16(128)	25.63	2593639m	44.35601	ng
18) C17(180)	27.16	3160537m	51.20277	ng
19) C17(170)	27.96	3478484m	49.68509	ng
20) C18(195)	29.04	3349686m	51.04006	ng
21) C19(206)	30.31	3010130m	47.42632	ng
22) C110(209)	30.90	2530539m	48.96103	ng
25) C12(8) #2	13.11	5083973m	47.69357	ng
26) C13(18) #2	14.99	5895438m	47.84308	ng
28) C13(28) #2	17.76	11755388m	51.34948	ng
29) C14(52) #2	19.14	7218531m	53.28922	ng
30) C14(44) #2	19.96	14022188m	60.53399	ng
31) C14(66) #2	22.36	13243452m	51.09294	ng
32) C15(101) #2	23.24	7731741m	52.87892	ng
35) C15(118) #2	26.35	11989427m	51.79561	ng
36) C16(153) #2	26.94	12800579	52.65197	ng
37) C15(105) #2	27.20	17536467	52.99993	ng
38) C16(138) #2	27.78	13407479m	59.44322	ng
39) C17(187) #2	28.14	13561283	54.76386	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7384.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0420\M7384.D\ECD2B.CH
 Acq On : 11-1-2014 01:39:39 AM Operator: RR
 Sample : M8365MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0234 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:30:07 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:30:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	18775144	53.92114	ng
41)	Cl7(180) #2	29.59	17198457	55.18110	ng
42)	Cl7(170) #2	30.22	18234568m	53.63482	ng
43)	Cl8(195) #2	31.09	17140292m	54.93361	ng
44)	Cl9(206) #2	32.18	15182643m	53.95218	ng
45)	Cl10(209) #2	32.62	12339522m	56.40727	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7385.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0420\M7385.D\ECD2B.CH
 Acq On : 11-1-2014 02:24:06 AM Operator: RR
 Sample : M8371-P(2) Inst : INST. M
 Misc : NBH14-0257 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:56 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3353200m	95.00000	ng
10) I C16(161)	23.22	6656149m	95.00000	ng
24) I C15(96) #2	20.52	14777351m	95.00000	ng
33) I C16(161) #2	26.79	32303495m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8355076m	343.25351	ng
Spiked Amount	379.8670	Recovery	=	90.36%
11) s C16(152)	20.48	10437380	311.48693	ng
Spiked Amount	381.3865	Recovery	=	81.67%
27) s C13(34) #2	16.48	43838325m	377.84946	ng
Spiked Amount	379.8670	Recovery	=	99.47%
34) s C16(152) #2	23.63	54362090	299.21347	ng
Spiked Amount	381.3865	Recovery	=	78.45%
Target Compounds				
2) C12(8)	10.21	541074m	23.03314	ng
3) C13(18)	12.13	1136630m	42.24975	ng
5) C13(28)	14.20	6177463m	147.31453	ng
6) C14(52)	15.84	3991350	130.20758	ng
7) C14(44)	16.70	1762892	36.25516	ng
8) C14(66)	18.61	2938772m	55.61088	ng
9) C15(101)	19.72	3997192	77.73585	ng
12) C15(118)	22.39	5300857m	112.86559	ng
13) C16(153)	23.43	4971555m	107.02562	ng
14) C15(105)	23.46	1562781m	23.72115	ng
15) C16(138)	24.53	5058063m	84.69954	ng
16) C17(187)	25.29	794010m	12.85691	ng
17) C16(128)	25.63	1168526m	18.75664	ng
18) C17(180)	27.16	941152m	13.30543	ng
19) C17(170)	27.96	656362m	7.66137	ng
20) C18(195)	29.04	152855m	0.77063	ng
21) C19(206)	30.30	129216m	0.69685	ng
22) C110(209)	30.90	51557m	BelowCal	ng
25) C12(8) #2	13.10	2470363m	22.46514	ng
26) C13(18) #2	14.99	5614626m	47.78465	ng
28) C13(28) #2	17.76	32946247m	167.56709	ng
29) C14(52) #2	19.15	20107943m	180.16249	ng
30) C14(44) #2	19.96	8649585m	37.75557	ng
31) C14(66) #2	22.36	12962325m	52.34865	ng
32) C15(101) #2	23.23	10339469m	74.59231	ng
35) C15(118) #2	26.34	27553035	136.73603	ng
36) C16(153) #2	26.94	23138822m	107.04763	ng
37) C15(105) #2	27.20	9123540m	29.39325	ng
38) C16(138) #2	27.78	15463514m	74.10697	ng
39) C17(187) #2	28.14	3758310m	14.80868	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7385.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0420\M7385.D\ECD2B.CH
 Acq On : 11-1-2014 02:24:06 AM Operator: RR
 Sample : M8371-P(2) Inst : INST. M
 Misc : NBH14-0257 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:23:56 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	7220675m	21.58892	ng
41)	Cl7(180) #2	29.59	5128745m	16.90521	ng
42)	Cl7(170) #2	30.22	3608327m	10.55626	ng
43)	Cl8(195) #2	31.09	590697m	0.81453	ng
44)	Cl9(206) #2	32.18	475337m	0.75824	ng
45)	Cl10(209) #2	32.63	244791m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7386.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0420\M7386.D\ECD2B.CH
 Acq On : 11-1-2014 03:08:37 AM Operator: RR
 Sample : M8372-P(2) Inst : INST. M
 Misc : NBH14-0261 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:02 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3992391	95.00000	ng
10) I C16(161)	23.22	8711899m	95.00000	ng
24) I C15(96) #2	20.52	15350953	95.00000	ng
33) I C16(161) #2	26.79	31924071m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9531146	320.85530	ng
Spiked Amount	379.8670	Recovery	=	84.47%
11) s C16(152)	20.48	12096268	269.47682	ng
Spiked Amount	381.3865	Recovery	=	70.66%
27) s C13(34) #2	16.48	43529227m	353.04314	ng
Spiked Amount	379.8670	Recovery	=	92.94%
34) s C16(152) #2	23.63	53478338	298.02687	ng
Spiked Amount	381.3865	Recovery	=	78.14%
Target Compounds				
2) C12(8)	10.21	1153128m	45.37294	ng
3) C13(18)	12.13	2347116	80.11915	ng
5) C13(28)	14.20	e 11727579m	263.70196	ng
6) C14(52)	15.84	e 9353340	319.52083	ng
7) C14(44)	16.70	4044663m	75.13388	ng
8) C14(66)	18.61	6100217m	102.88317	ng
9) C15(101)	19.72	8356900m	143.99141	ng
12) C15(118)	22.39	10229711m	174.34141	ng
13) C16(153)	23.43	10306017m	175.94527	ng
14) C15(105)	23.46	3349051m	40.97682	ng
15) C16(138)	24.53	10332075	136.33136	ng
16) C17(187)	25.30	1739079m	23.19438	ng
17) C16(128)	25.63	2099735m	26.09300	ng
18) C17(180)	27.16	2070246m	23.71848	ng
19) C17(170)	27.97	1568194m	15.37122	ng
20) C18(195)	29.04	327960m	2.24372	ng
21) C19(206)	30.31	388964m	3.30872	ng
22) C110(209)	30.91	108034m	0.05352	ng
25) C12(8) #2	13.11	5093850m	48.18172	ng
26) C13(18) #2	15.00	10403310m	92.99294	ng
28) C13(28) #2	17.77	e 63820910	369.48148	ng
29) C14(52) #2	19.15	e 43098950	BelowCal	ng
30) C14(44) #2	19.96	19137275	85.39644	ng
31) C14(66) #2	22.35	24025212m	97.58497	ng
32) C15(101) #2	23.23	20190217m	138.86008	ng
35) C15(118) #2	26.34	45520149m	234.01928	ng
36) C16(153) #2	26.94	40937195	193.10009	ng
37) C15(105) #2	27.21	12686884	41.96877	ng
38) C16(138) #2	27.78	23917319	114.06744	ng
39) C17(187) #2	28.14	8109579m	35.34132	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7386.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0420\M7386.D\ECD2B.CH
 Acq On : 11-1-2014 03:08:37 AM Operator: RR
 Sample : M8372-P(2) Inst : INST. M
 Misc : NBH14-0261 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:02 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:23:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	10616731m	33.01037	ng
41)	Cl7(180) #2	29.59	8885065m	30.86403	ng
42)	Cl7(170) #2	30.22	6615555m	20.77843	ng
43)	Cl8(195) #2	31.09	1137171m	2.85516	ng
44)	Cl9(206) #2	32.18	1185696m	3.67008	ng
45)	Cl10(209) #2	32.62	336089m	0.27598	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7387.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0420\M7387.D\ECD2B.CH
 Acq On : 11-1-2014 03:53:03 AM Operator: RR
 Sample : M8373-P(2) Inst : INST. M
 Misc : NBH14-0265 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:07 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:00 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2863330m	95.00000	ng
10) I C16(161)	23.22	4784807m	95.00000	ng
24) I C15(96) #2	20.52	12254187m	95.00000	ng
33) I C16(161) #2	26.80	26009159	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	7611463m	383.10559	ng
Spiked Amount	379.8670	Recovery	=	100.85%
11) s C16(152)	20.49	8621661	369.71246	ng
Spiked Amount	381.3865	Recovery	=	96.94%
27) s C13(34) #2	16.48	35149855m	359.10270	ng
Spiked Amount	379.8670	Recovery	=	94.53%
34) s C16(152) #2	23.63	36389415	254.45092	ng
Spiked Amount	381.3865	Recovery	=	66.72%
Target Compounds				
2) C12(8)	10.21	3335261	245.74343	ng
3) C13(18)	12.13	e 8441700	BelowCal	ng
5) C13(28)	14.20	E 75233077	BelowCal	ng
6) C14(52)	15.84	E 30642851	BelowCal	ng
7) C14(44)	16.71	e 14131432	BelowCal	ng
8) C14(66)	18.63	e 17981285m	BelowCal	ng
9) C15(101)	19.73	E 27897391	BelowCal	ng
12) C15(118)	22.41	E 33851042	BelowCal	ng
13) C16(153)	23.44	E 40229946	BelowCal	ng
14) C15(105)	23.48	6361282m	165.20708	ng
15) C16(138)	24.55	E 29998748m	BelowCal	ng
16) C17(187)	25.31	4056851	109.95975	ng
17) C16(128)	25.64	6253775	154.84799	ng
18) C17(180)	27.17	5959847	136.14114	ng
19) C17(170)	27.97	4682112m	92.56769	ng
20) C18(195)	29.05	847172	16.27816	ng
21) C19(206)	30.31	900750m	18.23315	ng
22) C110(209)	30.91	249532m	5.10336	ng
25) C12(8) #2	13.11	14246291m	203.01441	ng
26) C13(18) #2	15.00	e 38834522	BelowCal	ng
28) C13(28) #2	17.77	E 194057707	BelowCal	ng
29) C14(52) #2	19.15	E 134408805	BelowCal	ng
30) C14(44) #2	19.96	e 61267441	522.15543	ng
31) C14(66) #2	22.36	E 132308328	BelowCal	ng
32) C15(101) #2	23.23	E 146792482	912.15720	ng
35) C15(118) #2	26.34	E 143773283	1026.67800	ng
36) C16(153) #2	26.94	e 110936188	624.82576	ng
37) C15(105) #2	27.21	42225369	170.19418	ng
38) C16(138) #2	27.79	e 74698339	384.75692	ng
39) C17(187) #2	28.14	59822746	318.21124	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7387.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0420\M7387.D\ECD2B.CH
 Acq On : 11-1-2014 03:53:03 AM Operator: RR
 Sample : M8373-P(2) Inst : INST. M
 Misc : NBH14-0265 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:07 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:00 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	32834761	127.26629	ng
41)	Cl7(180) #2	29.59	29611142m	127.30684	ng
42)	Cl7(170) #2	30.22	19066978	75.71786	ng
43)	Cl8(195) #2	31.09	3464572m	14.27713	ng
44)	Cl9(206) #2	32.19	3052692m	14.03318	ng
45)	Cl10(209) #2	32.62	783134m	3.55038	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7389.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0420\M7389.D\ECD2B.CH
 Acq On : 11-1-2014 05:22:01 AM Operator: RR
 Sample : M8383-P(2) Inst : INST. M
 Misc : NBH14-0314 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I C15(96)	17.40	3793854m	95.00000 ng
10) I C16(161)	23.22	5941149m	95.00000 ng
24) I C15(96) #2	20.52	11199480m	95.00000 ng
33) I C16(161) #2	26.82	19518591m	95.00000 ng
System Monitoring Compounds			
4) s C13(34)	13.41	8853524m	309.93349 ng
Spiked Amount	379.8670	Recovery	= 81.59%
11) s C16(152)	20.50	9295277m	310.64198 ng
Spiked Amount	381.3865	Recovery	= 81.45%
27) s C13(34) #2	16.48	35360357m	417.33515 ng
Spiked Amount	379.8670	Recovery	= 109.86%
34) s C16(152) #2	23.63	36993302	331.51041 ng
Spiked Amount	381.3865	Recovery	= 86.92%
Target Compounds			
2) C12(8)	10.21	e 5608506	377.26275 ng
3) C13(18)	12.13	E 12372241	BelowCal ng
5) C13(28)	14.21	E 128659537	BelowCal ng
6) C14(52)	15.84	E 52619138	BelowCal ng
7) C14(44)	16.71	E 28773735	BelowCal ng
8) C14(66)	18.63	E 79453465	BelowCal ng
9) C15(101)	19.73	E 61988347	BelowCal ng
12) C15(118)	22.41	E 80657932m	BelowCal ng
13) C16(153)	23.45	E 110567283	BelowCal ng
14) C15(105)	23.49	e 22803461m	BelowCal ng
15) C16(138)	24.56	E 88204361	BelowCal ng
16) C17(187)	25.31	8678601m	198.39623 ng
17) C16(128)	25.65	e 19253857m	467.13232 ng
18) C17(180)	27.17	e 15954196m	309.12403 ng
19) C17(170)	27.98	12324264m	203.58106 ng
20) C18(195)	29.05	1982085	32.13950 ng
21) C19(206)	30.32	2248541m	38.16358 ng
22) C110(209)	30.92	658907m	12.59857 ng
25) C12(8) #2	13.11	22932168	BelowCal ng
26) C13(18) #2	15.00	e 48157373	BelowCal ng
28) C13(28) #2	17.77	E 300922029	BelowCal ng
29) C14(52) #2	19.15	E 201423815	BelowCal ng
30) C14(44) #2	19.96	e 108734835	BelowCal ng
31) C14(66) #2	22.36	E 230869238	BelowCal ng
32) C15(101) #2	23.24	E 285322029	1557.26331 ng
35) C15(118) #2	26.34	E 306909098	BelowCal ng
36) C16(153) #2	26.95	E 225787963	1562.69258 ng
37) C15(105) #2	27.21	e 120699916	578.84630 ng
38) C16(138) #2	27.79	E 211198196	1092.94641 ng
39) C17(187) #2	28.15	30627791m	221.48996 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7389.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0420\M7389.D\ECD2B.CH
 Acq On : 11-1-2014 05:22:01 AM Operator: RR
 Sample : M8383-P(2) Inst : INST. M
 Misc : NBH14-0314 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	77828849	377.18370	ng
41)	Cl7(180) #2	29.59	65177890	348.72761	ng
42)	Cl7(170) #2	30.22	43120687m	219.55162	ng
43)	Cl8(195) #2	31.09	6191578m	35.52174	ng
44)	Cl9(206) #2	32.19	5648278m	35.97591	ng
45)	Cl10(209) #2	32.63	2062177m	16.12487	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7390.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0420\M7390.D\ECD2B.CH
 Acq On : 11-1-2014 06:06:32 AM Operator: RR
 Sample : M8384-P(2) Inst : INST. M
 Misc : NBH14-0318 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3341359m	95.00000	ng
10) I C16(161)	23.21	5676223m	95.00000	ng
24) I C15(96) #2	20.52	12907681	95.00000	ng
33) I C16(161) #2	26.80	22544902m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	8993276m	391.83961	ng
Spiked Amount	379.8670	Recovery	=	103.15%
11) s C16(152)	20.49	10203235	368.58952	ng
Spiked Amount	381.3865	Recovery	=	96.64%
27) s C13(34) #2	16.48	41885875	437.20186	ng
Spiked Amount	379.8670	Recovery	=	115.09%
34) s C16(152) #2	23.63	44114143	340.67257	ng
Spiked Amount	381.3865	Recovery	=	89.32%
Target Compounds				
2) C12(8)	10.21	e 4291438	286.57849	ng
3) C13(18)	12.13	E 9285640	BelowCal	ng
5) C13(28)	14.20	E 83756554	BelowCal	ng
6) C14(52)	15.84	E 37293466	BelowCal	ng
7) C14(44)	16.71	E 20428072	BelowCal	ng
8) C14(66)	18.64	E 49068795	BelowCal	ng
9) C15(101)	19.73	E 37014935	BelowCal	ng
12) C15(118)	22.41	E 74644782	BelowCal	ng
13) C16(153)	23.45	E 63269677	BelowCal	ng
14) C15(105)	23.48	11418331m	283.10555	ng
15) C16(138)	24.55	E 50773303	BelowCal	ng
16) C17(187)	25.31	5099254	116.99048	ng
17) C16(128)	25.64	11924925	265.96649	ng
18) C17(180)	27.17	9095825m	177.54351	ng
19) C17(170)	27.97	7267141m	122.51714	ng
20) C18(195)	29.05	1196625	19.68923	ng
21) C19(206)	30.31	1114181m	19.07149	ng
22) C110(209)	30.91	467658m	8.95612	ng
25) C12(8) #2	13.11	20421955	312.00604	ng
26) C13(18) #2	15.00	e 41671150	BelowCal	ng
28) C13(28) #2	17.77	E 212118511	BelowCal	ng
29) C14(52) #2	19.15	E 164268287	BelowCal	ng
30) C14(44) #2	19.96	e 88674432	BelowCal	ng
31) C14(66) #2	22.36	E 158523124	BelowCal	ng
32) C15(101) #2	23.23	E 200465409	1102.73169	ng
35) C15(118) #2	26.34	E 207777284	2010.69011	ng
36) C16(153) #2	26.94	E 151171997	954.70113	ng
37) C15(105) #2	27.21	82057210m	361.95976	ng
38) C16(138) #2	27.79	E 147726262	751.22982	ng
39) C17(187) #2	28.14	20168160m	128.13915	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7390.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0420\M7390.D\ECD2B.CH
 Acq On : 11-1-2014 06:06:32 AM Operator: RR
 Sample : M8384-P(2) Inst : INST. M
 Misc : NBH14-0318 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	54709384m	238.31001	ng
41)	Cl7(180) #2	29.59	40794566m	198.26354	ng
42)	Cl7(170) #2	30.22	29671165m	134.21713	ng
43)	Cl8(195) #2	31.09	4330017m	21.11335	ng
44)	Cl9(206) #2	32.19	3679262m	19.91550	ng
45)	Cl10(209) #2	32.63	1641739m	10.67100	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7391.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0420\M7391.D\ECD2B.CH
 Acq On : 11-1-2014 06:50:57 AM Operator: RR
 Sample : M8385-P(2) Inst : INST. M
 Misc : NBH14-0322 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3888502m	95.00000	ng
10) I C16(161)	23.22	6079238m	95.00000	ng
24) I C15(96) #2	20.52	13172187m	95.00000	ng
33) I C16(161) #2	26.79	30967424m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9075753	310.00311	ng
Spiked Amount	379.8670	Recovery	=	81.61%
11) s C16(152)	20.49	10643671	356.61515	ng
Spiked Amount	381.3865	Recovery	=	93.50%
27) s C13(34) #2	16.48	39703534m	387.29383	ng
Spiked Amount	379.8670	Recovery	=	101.96%
34) s C16(152) #2	23.63	43526348	255.49103	ng
Spiked Amount	381.3865	Recovery	=	66.99%
Target Compounds				
2) C12(8)	10.21	2351561	106.02289	ng
3) C13(18)	12.13	e 5082314m	217.17426	ng
5) C13(28)	14.20	E 46011622	BelowCal	ng
6) C14(52)	15.84	E 20509309	BelowCal	ng
7) C14(44)	16.71	e 11250105	261.57302	ng
8) C14(66)	18.62	e 10697970m	204.96072	ng
9) C15(101)	19.72	e 19584567	434.08671	ng
12) C15(118)	22.40	E 24696982	BelowCal	ng
13) C16(153)	23.44	E 30125548	BelowCal	ng
14) C15(105)	23.47	6579581m	129.59469	ng
15) C16(138)	24.54	e 23412642	534.15846	ng
16) C17(187)	25.30	2905780	59.69466	ng
17) C16(128)	25.63	5392190	101.82069	ng
18) C17(180)	27.16	4517533m	79.30436	ng
19) C17(170)	27.97	3635649m	55.42292	ng
20) C18(195)	29.04	580215m	8.05212	ng
21) C19(206)	30.31	497945m	7.17128	ng
22) C110(209)	30.91	208419m	2.83144	ng
25) C12(8) #2	13.11	9812309m	118.80724	ng
26) C13(18) #2	15.00	24742257	345.03840	ng
28) C13(28) #2	17.77	E 115355988	BelowCal	ng
29) C14(52) #2	19.15	E 90057357	BelowCal	ng
30) C14(44) #2	19.96	46286597	288.94193	ng
31) C14(66) #2	22.36	e 87224130	606.42914	ng
32) C15(101) #2	23.23	E 102837941	657.77265	ng
35) C15(118) #2	26.34	e 96419171	537.12491	ng
36) C16(153) #2	26.94	e 72569835	350.67749	ng
37) C15(105) #2	27.21	33520418	114.86631	ng
38) C16(138) #2	27.78	58793454	268.53589	ng
39) C17(187) #2	28.14	19983646m	92.54047	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7391.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0420\M7391.D\ECD2B.CH
 Acq On : 11-1-2014 06:50:57 AM Operator: RR
 Sample : M8385-P(2) Inst : INST. M
 Misc : NBH14-0322 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	23824760	77.96287	ng
41)	Cl7(180) #2	29.59	18495030m	67.40972	ng
42)	Cl7(170) #2	30.22	13458403	44.80292	ng
43)	Cl8(195) #2	31.09	2144816m	6.80499	ng
44)	Cl9(206) #2	32.18	1847474m	6.58710	ng
45)	Cl10(209) #2	32.62	726748m	2.44048	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7392.D\ECD1A.CH Vial: 29
 Signal #2 : I:\M\DATA\SM0420\M7392.D\ECD2B.CH
 Acq On : 11-1-2014 07:35:29 AM Operator: RR
 Sample : M8386-P(2) Inst : INST. M
 Misc : NBH14-0326 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3459587m	95.00000	ng
10) I C16(161)	23.22	5276256m	95.00000	ng
24) I C15(96) #2	20.52	12144629m	95.00000	ng
33) I C16(161) #2	26.80	21914347	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8787697m	354.25519	ng
Spiked Amount	379.8670	Recovery	=	93.26%
11) s C16(152)	20.49	9284830	358.88567	ng
Spiked Amount	381.3865	Recovery	=	94.10%
27) s C13(34) #2	16.48	38313329m	416.77212	ng
Spiked Amount	379.8670	Recovery	=	109.72%
34) s C16(152) #2	23.63	39914513	320.38603	ng
Spiked Amount	381.3865	Recovery	=	84.01%
Target Compounds				
2) C12(8)	10.21	e 5757420	BelowCal	ng
3) C13(18)	12.13	E 13482088	BelowCal	ng
5) C13(28)	14.20	E 120620445	BelowCal	ng
6) C14(52)	15.84	E 54597211	BelowCal	ng
7) C14(44)	16.71	E 26919113	BelowCal	ng
8) C14(66)	18.64	E 66445586	BelowCal	ng
9) C15(101)	19.73	E 48191222	BelowCal	ng
12) C15(118)	22.41	E 59061242	BelowCal	ng
13) C16(153)	23.44	E 72501395	BelowCal	ng
14) C15(105)	23.48	11321727m	311.75653	ng
15) C16(138)	24.54	E 54488587	BelowCal	ng
16) C17(187)	25.31	7289489	186.56514	ng
17) C16(128)	25.64	10998503	263.50379	ng
18) C17(180)	27.17	11246145	240.64008	ng
19) C17(170)	27.97	8460403m	155.10551	ng
20) C18(195)	29.05	1457710	26.31785	ng
21) C19(206)	30.31	1532631m	28.92081	ng
22) C110(209)	30.91	480563m	10.06534	ng
25) C12(8) #2	13.11	e 27424983	BelowCal	ng
26) C13(18) #2	15.00	E 59641957	BelowCal	ng
28) C13(28) #2	17.77	E 300286160	BelowCal	ng
29) C14(52) #2	19.15	E 232914284	BelowCal	ng
30) C14(44) #2	19.96	E 115359866	BelowCal	ng
31) C14(66) #2	22.36	E 219328874	BelowCal	ng
32) C15(101) #2	23.23	E 244971476	1326.67599	ng
35) C15(118) #2	26.34	E 250393761	3052.12254	ng
36) C16(153) #2	26.94	E 202447725	1278.75880	ng
37) C15(105) #2	27.21	71465806m	327.48747	ng
38) C16(138) #2	27.78	E 133705395	710.82830	ng
39) C17(187) #2	28.14	34119896m	219.83897	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7392.D\ECD1A.CH Vial: 29
 Signal #2 : I:\M\DATA\SM0420\M7392.D\ECD2B.CH
 Acq On : 11-1-2014 07:35:29 AM Operator: RR
 Sample : M8386-P(2) Inst : INST. M
 Misc : NBH14-0326 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	52795576	236.69122	ng
41)	Cl7(180) #2	29.59	50183673m	247.09157	ng
42)	Cl7(170) #2	30.22	35954344	165.79393	ng
43)	Cl8(195) #2	31.09	5833841m	29.67068	ng
44)	Cl9(206) #2	32.19	5148566m	29.07117	ng
45)	Cl10(209) #2	32.63	1966579m	13.48360	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7393.D\ECD1A.CH Vial: 30
 Signal #2 : I:\M\DATA\SM0420\M7393.D\ECD2B.CH
 Acq On : 11-1-2014 08:19:54 AM Operator: RR
 Sample : M8403-P(2) Inst : INST. M
 Misc : NBH14-0165 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:40 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3790051	95.00000	ng
10) I C16(161)	23.22	7630537	95.00000	ng
24) I C15(96) #2	20.52	15553799m	95.00000	ng
33) I C16(161) #2	26.79	36851139	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9468772	344.73969	ng
Spiked Amount	379.8670	Recovery	=	90.75%
11) s C16(152)	20.48	12826401m	339.04519	ng
Spiked Amount	381.3865	Recovery	=	88.90%
27) s C13(34) #2	16.48	45613637m	371.26033	ng
Spiked Amount	379.8670	Recovery	=	97.73%
34) s C16(152) #2	23.63	60318374	292.08107	ng
Spiked Amount	381.3865	Recovery	=	76.58%
Target Compounds				
2) C12(8)	10.21	351029	11.40070	ng
3) C13(18)	12.13	970981	30.34078	ng
5) C13(28)	14.19	3992526m	78.31135	ng
6) C14(52)	15.84	3522938	97.20400	ng
7) C14(44)	16.70	1703433	30.39697	ng
8) C14(66)	18.62	1629600m	25.27822	ng
9) C15(101)	19.72	2306846	37.85985	ng
12) C15(118)	22.39	2389547	40.73472	ng
13) C16(153)	23.43	2272120m	40.73468	ng
14) C15(105)	23.46	694520m	7.60836	ng
15) C16(138)	24.53	2414410	33.17987	ng
16) C17(187)	25.29	460936	5.33293	ng
17) C16(128)	25.63	498739m	6.53408	ng
18) C17(180)	27.16	508532m	5.25348	ng
19) C17(170)	27.96	391600m	3.19502	ng
20) C18(195)	29.04	79899	BelowCal	ng
21) C19(206)	30.31	70367m	BelowCal	ng
22) C110(209)	30.91	23825m	BelowCal	ng
25) C12(8) #2	13.11	1536405m	12.11807	ng
26) C13(18) #2	15.00	4450414m	34.27823	ng
28) C13(28) #2	17.76	17757957m	79.57119	ng
29) C14(52) #2	19.15	16577360m	134.48296	ng
30) C14(44) #2	19.96	8172028m	33.60773	ng
31) C14(66) #2	22.35	7197085m	26.25748	ng
32) C15(101) #2	23.23	5397811m	35.66540	ng
35) C15(118) #2	26.33	11529153	47.30863	ng
36) C16(153) #2	26.94	10272798m	39.52186	ng
37) C15(105) #2	27.20	3047727	7.29863	ng
38) C16(138) #2	27.78	5841912	24.54496	ng
39) C17(187) #2	28.14	2595409	7.91248	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7393.D\ECD1A.CH Vial: 30
 Signal #2 : I:\M\DATA\SM0420\M7393.D\ECD2B.CH
 Acq On : 11-1-2014 08:19:54 AM Operator: RR
 Sample : M8403-P(2) Inst : INST. M
 Misc : NBH14-0165 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:40 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2686969m	5.67494	ng
41)	Cl7(180) #2	29.59	2406764m	5.89003	ng
42)	Cl7(170) #2	30.22	1587006m	3.16323	ng
43)	Cl8(195) #2	31.09	394020	BelowCal	ng
44)	Cl9(206) #2	32.18	257520m	BelowCal	ng
45)	Cl10(209) #2	32.62	80213m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7394.D\ECD1A.CH Vial: 31
 Signal #2 : I:\M\DATA\SM0420\M7394.D\ECD2B.CH
 Acq On : 11-1-2014 09:04:28 AM Operator: RR
 Sample : M8156-P-D(4) Inst : INST. M
 Misc : NBH14-0017 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3466074	95.00000	ng
10) I C16(161)	23.22	7838020m	95.00000	ng
24) I C15(96) #2	20.52	16633640m	95.00000	ng
33) I C16(161) #2	26.79	41256166	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	398076m	15.13266	ng
3) C13(18)	12.13	1005902m	35.19805	ng
5) C13(28)	14.19	3924880m	84.82878	ng
6) C14(52)	15.84	3448121	105.26011	ng
7) C14(44)	16.70	1694298	33.41352	ng
8) C14(66)	18.62	1562946m	26.66929	ng
9) C15(101)	19.72	2392199	43.30738	ng
12) C15(118)	22.39	2490859	41.39747	ng
13) C16(153)	23.43	2349683m	41.02255	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	2270320	30.13788	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	1832076m	13.82434	ng
26) C13(18) #2	15.00	4844134m	35.00352	ng
28) C13(28) #2	17.77	20943764	88.51383	ng
29) C14(52) #2	19.15	17383409m	131.43850	ng
30) C14(44) #2	19.96	8547944m	32.81405	ng
31) C14(66) #2	22.35	6479783m	21.73451	ng
32) C15(101) #2	23.23	7033859m	44.17954	ng
35) C15(118) #2	26.33	12432910m	45.42752	ng
36) C16(153) #2	26.94	10932104	37.37983	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5980500	22.38503	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7394.D\ECD1A.CH Vial: 31
 Signal #2 : I:\M\DATA\SM0420\M7394.D\ECD2B.CH
 Acq On : 11-1-2014 09:04:28 AM Operator: RR
 Sample : M8156-P-D(4) Inst : INST. M
 Misc : NBH14-0017 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7395.D\ECD1A.CH Vial: 32
 Signal #2 : I:\M\DATA\SM0420\M7395.D\ECD2B.CH
 Acq On : 11-1-2014 09:48:55 AM Operator: RR
 Sample : M8158-P-D(4) Inst : INST. M
 Misc : NBH14-0025 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:51 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3279599	95.00000	ng
10) I C16(161)	23.22	7615896m	95.00000	ng
24) I C15(96) #2	20.52	16468943	95.00000	ng
33) I C16(161) #2	26.79	40837680	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	732322m	13.89483	ng
6) C14(52)	15.84	786438m	18.91476	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.77	4321524	16.00448	ng
29) C14(52) #2	19.15	3995840m	25.83040	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7395.D\ECD1A.CH Vial: 32
 Signal #2 : I:\M\DATA\SM0420\M7395.D\ECD2B.CH
 Acq On : 11-1-2014 09:48:55 AM Operator: RR
 Sample : M8158-P-D(4) Inst : INST. M
 Misc : NBH14-0025 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:51 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7396.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0420\M7396.D\ECD2B.CH
 Acq On : 01 Nov 2014 10:33 am Operator: RR
 Sample : M8163-P-D(4) Inst : INST. M
 Misc : NBH14-0045 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:56 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:49 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3302286	95.00000	ng
10) I C16(161)	23.21	7591863m	95.00000	ng
24) I C15(96) #2	20.52	15692876m	95.00000	ng
33) I C16(161) #2	26.79	38261325	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	250121	8.58608	ng
3) C13(18)	12.13	705295	24.32753	ng
5) C13(28)	14.20	2421837m	52.63494	ng
6) C14(52)	15.83	2259941m	68.04891	ng
7) C14(44)	16.70	1101779	21.61129	ng
8) C14(66)	18.62	943560m	15.78763	ng
9) C15(101)	19.72	1466852	26.98415	ng
12) C15(118)	22.39	1358078m	21.76090	ng
13) C16(153)	23.43	1296720m	22.73780	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1300329m	16.76726	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	1147980m	8.28814	ng
26) C13(18) #2	14.99	3427738m	24.72569	ng
28) C13(28) #2	17.76	12587574m	54.34292	ng
29) C14(52) #2	19.15	11120358m	84.52920	ng
30) C14(44) #2	19.96	5338062m	20.94600	ng
31) C14(66) #2	22.35	4382459m	14.96104	ng
32) C15(101) #2	23.23	4147181m	26.27694	ng
35) C15(118) #2	26.33	6961040m	25.94501	ng
36) C16(153) #2	26.94	6252193	21.56665	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	3349531	13.18666	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7396.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0420\M7396.D\ECD2B.CH
 Acq On : 01 Nov 2014 10:33 am Operator: RR
 Sample : M8163-P-D(4) Inst : INST. M
 Misc : NBH14-0045 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:24:56 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:49 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7397.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0420\M7397.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:17 am Operator: RR
 Sample : M8164-P-D(4) Inst : INST. M
 Misc : NBH14-0049 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:00 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:54 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3315341	95.00000	ng
10) I C16(161)	23.22	7656844	95.00000	ng
24) I C15(96) #2	20.52	15673249m	95.00000	ng
33) I C16(161) #2	26.79	38959030	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	627918	27.85802	ng
3) C13(18)	12.13	1626606	64.92447	ng
5) C13(28)	14.20	5899526m	141.46927	ng
6) C14(52)	15.84	5201763	182.77725	ng
7) C14(44)	16.70	2699986	58.96395	ng
8) C14(66)	18.62	2287357m	42.75706	ng
9) C15(101)	19.72	3454811	67.28026	ng
12) C15(118)	22.39	3281293	57.38750	ng
13) C16(153)	23.43	3415255m	62.14870	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	3077837m	42.95520	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	2868830m	24.89270	ng
26) C13(18) #2	14.99	7948817m	66.63682	ng
28) C13(28) #2	17.76	32085098	151.92479	ng
29) C14(52) #2	19.15	25304781m	223.86231	ng
30) C14(44) #2	19.96	14459829	61.60457	ng
31) C14(66) #2	22.35	10668561m	39.87734	ng
32) C15(101) #2	23.23	9181474m	62.20421	ng
35) C15(118) #2	26.33	16762894m	66.57009	ng
36) C16(153) #2	26.94	15386983	57.54182	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	7831657	31.27748	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7397.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0420\M7397.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:17 am Operator: RR
 Sample : M8164-P-D(4) Inst : INST. M
 Misc : NBH14-0049 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:00 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:54 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7398.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0420\M7398.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:02 pm Operator: RR
 Sample : M8165-P-D(4) Inst : INST. M
 Misc : NBH14-0053 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:06 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3372956	95.00000	ng
10) I C16(161)	23.22	7799583	95.00000	ng
24) I C15(96) #2	20.52	16231611m	95.00000	ng
33) I C16(161) #2	26.79	39829654	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	627226	20.47077	ng
5) C13(28)	14.19	1959601m	40.79607	ng
6) C14(52)	15.84	1832482	51.97819	ng
7) C14(44)	16.70	749532	13.27599	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	19.72	1126308	19.77586	ng
12) C15(118)	22.39	1136033	17.12867	ng
13) C16(153)	23.43	1200874m	20.37373	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	15.00	3107973m	20.96655	ng
28) C13(28) #2	17.76	10760467m	44.25939	ng
29) C14(52) #2	19.15	9034621m	64.67538	ng
30) C14(44) #2	19.96	3874070m	14.10895	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	23.23	3207697m	18.64266	ng
35) C15(118) #2	26.33	5893227m	20.42083	ng
36) C16(153) #2	26.94	5620340	18.08853	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7398.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0420\M7398.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:02 pm Operator: RR
 Sample : M8165-P-D(4) Inst : INST. M
 Misc : NBH14-0053 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:06 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:24:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7400.D\ECD1A.CH Vial: 37
 Signal #2 : I:\M\DATA\SM0420\M7400.D\ECD2B.CH
 Acq On : 11-1-2014 01:31:35 PM Operator: RR
 Sample : M8166-P-D(4) Inst : INST. M
 Misc : NBH14-0061 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:10 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3157509	95.00000	ng
10) I C16(161)	23.22	6862045	95.00000	ng
24) I C15(96) #2	20.52	17039075m	95.00000	ng
33) I C16(161) #2	26.79	41980364	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	332158m	9.36953	ng
5) C13(28)	14.20	1015803m	21.17943	ng
6) C14(52)	15.84	1154519	32.39023	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	15.00	1808240m	9.21674	ng
28) C13(28) #2	17.77	7514607	28.47015	ng
29) C14(52) #2	19.15	6238375m	40.78801	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7400.D\ECD1A.CH Vial: 37
 Signal #2 : I:\M\DATA\SM0420\M7400.D\ECD2B.CH
 Acq On : 11-1-2014 01:31:35 PM Operator: RR
 Sample : M8166-P-D(4) Inst : INST. M
 Misc : NBH14-0061 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:10 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7401.D\ECD1A.CH Vial: 38
 Signal #2 : I:\M\DATA\SM0420\M7401.D\ECD2B.CH
 Acq On : 11-1-2014 02:16:00 PM Operator: RR
 Sample : M8166DUP-P-D(4) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0061 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:22 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3336950	95.00000	ng
10) I C16(161)	23.22	7597941	95.00000	ng
24) I C15(96) #2	20.52	15884478m	95.00000	ng
33) I C16(161) #2	26.79	38768920	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	910655m	17.55581	ng
6) C14(52)	15.84	1097501	28.42220	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	5803633m	23.16434	ng
29) C14(52) #2	19.15	5344163m	37.15669	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7401.D\ECD1A.CH Vial: 38
 Signal #2 : I:\M\DATA\SM0420\M7401.D\ECD2B.CH
 Acq On : 11-1-2014 02:16:00 PM Operator: RR
 Sample : M8166DUP-P-D(4) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0061 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:22 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7402.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0420\M7402.D\ECD2B.CH
 Acq On : 11-1-2014 03:00:31 PM Operator: RR
 Sample : M8347-P-D(4) Inst : INST. M
 Misc : NBH14-0057 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:27 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3090849	95.00000	ng
10) I C16(161)	23.22	6842783	95.00000	ng
24) I C15(96) #2	20.52	15749820m	95.00000	ng
33) I C16(161) #2	26.79	38290841	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	355346	10.69909	ng
5) C13(28)	14.20	1127623m	24.39816	ng
6) C14(52)	15.84	1098154	31.26981	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	1866459m	10.90711	ng
28) C13(28) #2	17.77	6247087	25.35335	ng
29) C14(52) #2	19.15	5722471m	40.44616	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7402.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0420\M7402.D\ECD2B.CH
 Acq On : 11-1-2014 03:00:31 PM Operator: RR
 Sample : M8347-P-D(4) Inst : INST. M
 Misc : NBH14-0057 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:27 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7404.D\ECD1A.CH Vial: 41
 Signal #2 : I:\M\DATA\SM0420\M7404.D\ECD2B.CH
 Acq On : 11-1-2014 04:29:29 PM Operator: RR
 Sample : M8355-P-D(4) Inst : INST. M
 Misc : NBH14-0203 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3379773m	95.00000	ng
10) I C16(161)	23.22	8172873m	95.00000	ng
24) I C15(96) #2	20.52	15727574m	95.00000	ng
33) I C16(161) #2	26.79	37236443	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 11906489	BelowCal	ng
3) C13(18)	12.13	E 29461279	BelowCal	ng
5) C13(28)	14.20	E 99429842	BelowCal	ng
6) C14(52)	15.84	E 51980677	BelowCal	ng
7) C14(44)	16.70	e 11037997	311.16127	ng
8) C14(66)	18.65	5591594m	112.53944	ng
9) C15(101)	19.72	6552761	132.18182	ng
12) C15(118)	22.36	4807117m	80.99402	ng
13) C16(153)	23.42	7010057m	124.07569	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.52	6031966m	82.10912	ng
16) C17(187)	25.29	2365909	34.86025	ng
17) C16(128)	25.63	709408	8.89986	ng
18) C17(180)	27.16	1639823	19.70965	ng
19) C17(170)	27.97	1194004m	12.15559	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	E 62809269	BelowCal	ng
26) C13(18) #2	15.00	E 136891176	BelowCal	ng
28) C13(28) #2	17.77	E 281492387	BelowCal	ng
29) C14(52) #2	19.15	E 253176866	BelowCal	ng
30) C14(44) #2	19.96	56680277	299.15326	ng
31) C14(66) #2	22.32	27697915m	110.96748	ng
32) C15(101) #2	23.23	20752281m	139.28841	ng
35) C15(118) #2	26.34	19842602	83.48407	ng
36) C16(153) #2	26.94	38281443	154.62306	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.83	21688062m	89.62694	ng
39) C17(187) #2	28.14	11239179	42.41987	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7404.D\ECD1A.CH Vial: 41
 Signal #2 : I:\M\DATA\SM0420\M7404.D\ECD2B.CH
 Acq On : 11-1-2014 04:29:29 PM Operator: RR
 Sample : M8355-P-D(4) Inst : INST. M
 Misc : NBH14-0203 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3718677m	8.53469	ng
41)	Cl7(180) #2	29.59	8401441m	24.72940	ng
42)	Cl7(170) #2	30.22	4838769m	12.51478	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7405.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0420\M7405.D\ECD2B.CH
 Acq On : 11-1-2014 05:13:56 PM Operator: RR
 Sample : M8358-P-D(4) Inst : INST. M
 Misc : NBH14-0215 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:44 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3343615	95.00000	ng
10) I C16(161)	23.22	7623060	95.00000	ng
24) I C15(96) #2	20.52	16269025m	95.00000	ng
33) I C16(161) #2	26.79	40534216	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	422686	17.08558	ng
3) C13(18)	12.13	1055795	38.87997	ng
5) C13(28)	14.20	4466208m	101.98350	ng
6) C14(52)	15.84	4422946	147.90132	ng
7) C14(44)	16.70	2078074	43.69229	ng
8) C14(66)	18.63	1658071m	29.66413	ng
9) C15(101)	19.71	2223326	41.61731	ng
12) C15(118)	22.39	1927106	32.15353	ng
13) C16(153)	23.42	2676579m	48.38914	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.52	2500786m	34.50551	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	2047974m	16.19608	ng
26) C13(18) #2	14.99	5289882m	39.85672	ng
28) C13(28) #2	17.76	23422341m	102.50426	ng
29) C14(52) #2	19.15	23291726m	191.90736	ng
30) C14(44) #2	19.96	10787539m	43.17623	ng
31) C14(66) #2	22.33	7946695m	27.85408	ng
32) C15(101) #2	23.23	6078439m	38.65908	ng
35) C15(118) #2	26.34	11381075m	42.06277	ng
36) C16(153) #2	26.94	12642817	44.66823	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5981782	22.80151	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7405.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0420\M7405.D\ECD2B.CH
 Acq On : 11-1-2014 05:13:56 PM Operator: RR
 Sample : M8358-P-D(4) Inst : INST. M
 Misc : NBH14-0215 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:44 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7406.D\ECD1A.CH Vial: 43
 Signal #2 : I:\M\DATA\SM0420\M7406.D\ECD2B.CH
 Acq On : 11-1-2014 05:58:26 PM Operator: RR
 Sample : M8359-P-D(4) Inst : INST. M
 Misc : NBH14-0219 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:49 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:42 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3679872	95.00000	ng
10) I C16(161)	23.22	8593347m	95.00000	ng
24) I C15(96) #2	20.52	15794122m	95.00000	ng
33) I C16(161) #2	26.79	38752350	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	465500m	17.09962	ng
3) C13(18)	12.13	1116395	37.09147	ng
5) C13(28)	14.20	4898998m	101.60258	ng
6) C14(52)	15.84	4692357	141.45732	ng
7) C14(44)	16.70	2155724	40.90982	ng
8) C14(66)	18.63	1960767m	32.13561	ng
9) C15(101)	19.72	2491707	42.43219	ng
12) C15(118)	22.39	2295318	34.17947	ng
13) C16(153)	23.43	2996268m	48.03738	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	2778852m	33.97207	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	2060995m	16.89254	ng
26) C13(18) #2	14.99	5151056m	39.99853	ng
28) C13(28) #2	17.76	22792933m	102.77354	ng
29) C14(52) #2	19.15	21591196m	181.19444	ng
30) C14(44) #2	19.96	9982571m	41.00743	ng
31) C14(66) #2	22.33	7198079m	25.82507	ng
32) C15(101) #2	23.23	6919102m	45.87771	ng
35) C15(118) #2	26.33	11257723m	43.65263	ng
36) C16(153) #2	26.94	12254149	45.33748	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5624136	22.41213	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7406.D\ECD1A.CH Vial: 43
 Signal #2 : I:\M\DATA\SM0420\M7406.D\ECD2B.CH
 Acq On : 11-1-2014 05:58:26 PM Operator: RR
 Sample : M8359-P-D(4) Inst : INST. M
 Misc : NBH14-0219 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:25:49 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:42 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7409.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0420\M7409.D\ECD2B.CH
 Acq On : 11-1-2014 08:11:45 PM Operator: RR
 Sample : M8372-P-D(4) Inst : INST. M
 Misc : NBH14-0261 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3236758	95.00000	ng
10) I C16(161)	23.21	7104180m	95.00000	ng
24) I C15(96) #2	20.52	16613388m	95.00000	ng
33) I C16(161) #2	26.79	39567262m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	926981m	18.55528	ng
6) C14(52)	15.84	658453	15.07860	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.77	4653287m	17.22960	ng
29) C14(52) #2	19.15	4051933	25.98187	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7409.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0420\M7409.D\ECD2B.CH
 Acq On : 11-1-2014 08:11:45 PM Operator: RR
 Sample : M8372-P-D(4) Inst : INST. M
 Misc : NBH14-0261 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:25:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7411.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0420\M7411.D\ECD2B.CH
 Acq On : 11-1-2014 09:40:38 PM Operator: RR
 Sample : M8373-P-D(4) Inst : INST. M
 Misc : NBH14-0265 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:16 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3271043	95.00000	ng
10) I C16(161)	23.22	7327054	95.00000	ng
24) I C15(96) #2	20.52	15708846m	95.00000	ng
33) I C16(161) #2	26.79	39087783	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.12	710964	24.85686	ng
5) C13(28)	14.20	2880332m	64.29938	ng
6) C14(52)	15.83	2223015m	67.49962	ng
7) C14(44)	16.70	1061301m	20.91966	ng
8) C14(66)	18.62	1508732m	27.35484	ng
9) C15(101)	19.72	2160939	41.32830	ng
12) C15(118)	22.39	2260999	40.08144	ng
13) C16(153)	23.43	2297304m	42.99160	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	2198401m	31.31748	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	3335072m	23.86976	ng
28) C13(28) #2	17.76	15023084m	65.68676	ng
29) C14(52) #2	19.15	11508536m	87.73238	ng
30) C14(44) #2	19.96	5475156m	21.51375	ng
31) C14(66) #2	22.35	7046606m	25.38107	ng
32) C15(101) #2	23.23	6969326m	46.49931	ng
35) C15(118) #2	26.34	11660968m	44.93180	ng
36) C16(153) #2	26.94	9430390m	33.69162	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	6321706m	25.05425	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7411.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0420\M7411.D\ECD2B.CH
 Acq On : 11-1-2014 09:40:38 PM Operator: RR
 Sample : M8373-P-D(4) Inst : INST. M
 Misc : NBH14-0265 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:16 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7412.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0420\M7412.D\ECD2B.CH
 Acq On : 01 Nov 2014 10:25 pm Operator: RR
 Sample : M8383-P-D(4) Inst : INST. M
 Misc : NBH14-0314 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:21 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3422873	95.00000	ng
10) I C16(161)	23.22	8205035	95.00000	ng
24) I C15(96) #2	20.52	15858214m	95.00000	ng
33) I C16(161) #2	26.79	36778575m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	443662	17.62736	ng
3) C13(18)	12.13	969628	34.20382	ng
5) C13(28)	14.20	5125006m	116.01200	ng
6) C14(52)	15.84	3659468	114.59031	ng
7) C14(44)	16.70	2052801	41.99313	ng
8) C14(66)	18.61	3065997m	56.95915	ng
9) C15(101)	19.72	4294659	82.14695	ng
12) C15(118)	22.40	5511759	93.63321	ng
13) C16(153)	23.43	4675037m	80.36475	ng
14) C15(105)	23.45	2301465m	28.93749	ng
15) C16(138)	24.54	5622490	75.87535	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	25.63	1401226	18.22325	ng
18) C17(180)	27.16	1036749m	11.68278	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	1934686m	15.61006	ng
26) C13(18) #2	14.99	4554716m	34.43256	ng
28) C13(28) #2	17.76	24120557m	108.90336	ng
29) C14(52) #2	19.15	18067929m	145.44477	ng
30) C14(44) #2	19.96	9934585m	40.61813	ng
31) C14(66) #2	22.36	14645466m	55.31823	ng
32) C15(101) #2	23.23	12373774m	83.25956	ng
35) C15(118) #2	26.34	25286993	109.12280	ng
36) C16(153) #2	26.94	19267610	77.46263	ng
37) C15(105) #2	27.20	9546537	26.88015	ng
38) C16(138) #2	27.78	17162307	72.28715	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7412.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0420\M7412.D\ECD2B.CH
 Acq On : 01 Nov 2014 10:25 pm Operator: RR
 Sample : M8383-P-D(4) Inst : INST. M
 Misc : NBH14-0314 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:21 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	6535983	16.76512	ng
41)	Cl7(180) #2	29.59	4892941m	13.88176	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7413.D\ECD1A.CH Vial: 50
 Signal #2 : I:\M\DATA\SM0420\M7413.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:09 pm Operator: RR
 Sample : M8384-P-D(4) Inst : INST. M
 Misc : NBH14-0318 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:26 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3468014	95.00000	ng
10) I C16(161)	23.22	8027854	95.00000	ng
24) I C15(96) #2	20.52	15852208m	95.00000	ng
33) I C16(161) #2	26.79	36940889m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	358007	13.17879	ng
3) C13(18)	12.13	790530	26.34678	ng
5) C13(28)	14.20	3132595m	66.12195	ng
6) C14(52)	15.84	2792946	82.23071	ng
7) C14(44)	16.70	1569036	30.62491	ng
8) C14(66)	18.63	1914689m	33.42824	ng
9) C15(101)	19.72	2846068	52.10867	ng
12) C15(118)	22.39	3486602	58.22892	ng
13) C16(153)	23.43	2940486m	50.57585	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.54	3565866m	47.80638	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	1565654m	12.11592	ng
26) C13(18) #2	14.99	3657037m	26.44517	ng
28) C13(28) #2	17.76	16162530m	70.39149	ng
29) C14(52) #2	19.15	13551378m	104.37413	ng
30) C14(44) #2	19.96	7521219m	30.10162	ng
31) C14(66) #2	22.35	8996506m	32.77870	ng
32) C15(101) #2	23.23	8034408m	53.51297	ng
35) C15(118) #2	26.34	15581565m	65.17689	ng
36) C16(153) #2	26.94	12098894	47.09137	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	11206722	47.29266	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7413.D\ECD1A.CH Vial: 50
 Signal #2 : I:\M\DATA\SM0420\M7413.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:09 pm Operator: RR
 Sample : M8384-P-D(4) Inst : INST. M
 Misc : NBH14-0318 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:26 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7414.D\ECD1A.CH Vial: 51
 Signal #2 : I:\M\DATA\SM0420\M7414.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:54 pm Operator: RR
 Sample : M8385-P-D(4) Inst : INST. M
 Misc : NBH14-0322 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3195384	95.00000	ng
10) I C16(161)	23.22	7156403	95.00000	ng
24) I C15(96) #2	20.52	16476175m	95.00000	ng
33) I C16(161) #2	26.79	41396974	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	399112m	12.05478	ng
5) C13(28)	14.20	1599982m	34.65526	ng
6) C14(52)	15.83	1381321m	39.65817	ng
7) C14(44)	16.70	813732	15.69115	ng
8) C14(66)	18.62	1013662m	17.84795	ng
9) C15(101)	19.72	1421218	27.02218	ng
12) C15(118)	22.39	1635687	28.73181	ng
13) C16(153)	23.43	1281079m	23.89210	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1521031m	21.41203	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	2052779m	11.73936	ng
28) C13(28) #2	17.76	9021089m	36.00490	ng
29) C14(52) #2	19.15	7620903m	52.74943	ng
30) C14(44) #2	19.96	4199278m	15.19544	ng
31) C14(66) #2	22.35	4763811m	15.56495	ng
32) C15(101) #2	23.23	4032199m	24.04547	ng
35) C15(118) #2	26.34	8850341	31.13248	ng
36) C16(153) #2	26.94	6698919m	21.31932	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5274843m	19.58510	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7414.D\ECD1A.CH Vial: 51
 Signal #2 : I:\M\DATA\SM0420\M7414.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:54 pm Operator: RR
 Sample : M8385-P-D(4) Inst : INST. M
 Misc : NBH14-0322 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7415.D\ECD1A.CH Vial: 52
 Signal #2 : I:\M\DATA\SM0420\M7415.D\ECD2B.CH
 Acq On : 02 Nov 2014 12:38 am Operator: RR
 Sample : M8386-P-D(4) Inst : INST. M
 Misc : NBH14-0326 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:36 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:30 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3347894	95.00000	ng
10) I C16(161)	23.22	7813756	95.00000	ng
24) I C15(96) #2	20.52	15973481m	95.00000	ng
33) I C16(161) #2	26.79	40415026	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	444462	18.15977	ng
3) C13(18)	12.13	1029273	37.67700	ng
5) C13(28)	14.20	4009465m	90.27303	ng
6) C14(52)	15.84	3575715	114.45431	ng
7) C14(44)	16.70	1829151	37.84890	ng
8) C14(66)	18.62	2279305m	42.13580	ng
9) C15(101)	19.72	3300286	63.39404	ng
12) C15(118)	22.39	3697502	63.92344	ng
13) C16(153)	23.43	3533072m	63.04224	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	3560766	49.13327	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	1969583m	15.80685	ng
26) C13(18) #2	14.99	4932574m	37.51220	ng
28) C13(28) #2	17.76	21752519m	96.43243	ng
29) C14(52) #2	19.15	18084921m	144.36621	ng
30) C14(44) #2	19.96	9239396m	37.27620	ng
31) C14(66) #2	22.35	12054619m	44.55082	ng
32) C15(101) #2	23.23	9905602m	65.95567	ng
35) C15(118) #2	26.34	18729846	72.02905	ng
36) C16(153) #2	26.94	15596112m	56.13991	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	10015500	38.63416	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7415.D\ECD1A.CH Vial: 52
 Signal #2 : I:\M\DATA\SM0420\M7415.D\ECD2B.CH
 Acq On : 02 Nov 2014 12:38 am Operator: RR
 Sample : M8386-P-D(4) Inst : INST. M
 Misc : NBH14-0326 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:26:36 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:26:30 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7427.D\ECD1A.CH Vial: 64
 Signal #2 : I:\M\DATA\SM0420\M7427.D\ECD2B.CH
 Acq On : 11-2-2014 09:36:30 AM Operator: RR
 Sample : M8355-P-D(5) Inst : INST. M
 Misc : NBH14-0203 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:27:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:27:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3438092	100.00000	ng
10) I C16(161)	23.22	8008160	100.00000	ng
24) I C15(96) #2	20.52	16120840m	100.00000	ng
33) I C16(161) #2	26.79	39272119	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0000	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	1.0040	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	874922	41.31398	ng
3) C13(18)	12.13	2207584	93.50797	ng
5) C13(28)	14.20	4027245m	92.71168	ng
6) C14(52)	15.84	3634994	119.04223	ng
7) C14(44)	16.70	787535	14.51020	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	4454237m	41.44860	ng
26) C13(18) #2	15.00	10876536m	97.38531	ng
28) C13(28) #2	17.77	20132744	92.34515	ng
29) C14(52) #2	19.15	18241394m	151.86258	ng
30) C14(44) #2	19.96	4075771m	15.85080	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7427.D\ECD1A.CH Vial: 64
 Signal #2 : I:\M\DATA\SM0420\M7427.D\ECD2B.CH
 Acq On : 11-2-2014 09:36:30 AM Operator: RR
 Sample : M8355-P-D(5) Inst : INST. M
 Misc : NBH14-0203 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 18 13:27:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Nov 18 13:27:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7367.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0420\M7367.D\ECD2B.CH
 Acq On : 10-31-2014 01:03:20 PM Operator: RR
 Sample : CD582PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:38:30 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3044845	100.00000	ng
4) I C15(96) #2	20.51	15557332	100.00000	ng
Target Compounds				
2) C15(101)	0.00	0d	N.D.	ng
5) C15(101) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7368.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0420\M7368.D\ECD2B.CH
 Acq On : 10-31-2014 01:47:51 PM Operator: RR
 Sample : CD583LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:38:35 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:38:29 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.38	3356394	100.00000	ng	
4) I C15(96) #2	20.51	15516830m	100.00000	ng	
Target Compounds					
2) C15(101)	19.74	1380957m	25.56791	ng	68%
5) C15(101) #2	23.22	9633669m	29.34977	ng	78%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7370.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0420\M7370.D\ECD2B.CH
 Acq On : 10-31-2014 03:17:03 PM Operator: RR
 Sample : M8158-P(2) Inst : INST. M
 Misc : NBH14-0025 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:38:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:38:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3457950	95.00000	ng
4) I C15(96) #2	20.52	14427513m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	7819979	147.94970	ng
5) C15(101) #2	23.23	43449104m	157.71129	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7374.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0420\M7374.D\ECD2B.CH
 Acq On : 10-31-2014 06:14:54 PM Operator: RR
 Sample : M8166-P(2) Inst : INST. M
 Misc : NBH14-0061 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:38:54 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:38:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3896128m	95.00000	ng
4) I C15(96) #2	20.52	16399895	95.00000	ng
Target Compounds				
2) C15(101)	19.71	9644912	163.08209	ng
5) C15(101) #2	23.23	48269830m	153.06496	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7375.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0420\M7375.D\ECD2B.CH
 Acq On : 10-31-2014 06:59:18 PM Operator: RR
 Sample : M8166DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0061 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:38:56 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:38:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3789903	95.00000	ng
4) I C15(96) #2	20.52	14849979m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	7977933	137.01187	ng
5) C15(101) #2	23.23	42410195m	147.23863	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7376.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0420\M7376.D\ECD2B.CH
 Acq On : 10-31-2014 07:43:57 PM Operator: RR
 Sample : M8347-P(2) Inst : INST. M
 Misc : NBH14-0057 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:00 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:38:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3939877	95.00000	ng
4) I C15(96) #2	20.52	15439767m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	8673814	143.74863	ng
5) C15(101) #2	23.23	47365452m	161.60586	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7378.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0420\M7378.D\ECD2B.CH
 Acq On : 10-31-2014 09:12:51 PM Operator: RR
 Sample : M8348-P(2) Inst : INST. M
 Misc : NBH14-0069 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:08 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3751008	95.00000	ng
4) I C15(96) #2	20.52	16498668m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	2764796	45.21315	ng
5) C15(101) #2	23.23	14710335m	40.23924	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7382.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0420\M7382.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:10 am Operator: RR
 Sample : M8365-P(2) Inst : INST. M
 Misc : NBH14-0234 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:20 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3821195	95.00000	ng
4) I C15(96) #2	20.51	16031325m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	187571	1.38540	ng
5) C15(101) #2	23.23	828058m	3.15073	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7383.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0420\M7383.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:55 am Operator: RR
 Sample : M8365MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0234 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:23 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3843951	100.00000	ng
4) I C15(96) #2	20.51	15924736m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	2929459m	49.29919	ng
5) C15(101) #2	23.21	17031694m	51.15126	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7384.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0420\M7384.D\ECD2B.CH
 Acq On : 11-1-2014 01:39:39 AM Operator: RR
 Sample : M8365MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0234 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:26 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3569199	100.00000	ng
4) I C15(96) #2	20.52	16152323m	100.00000	ng
Target Compounds				
2) C15(101)	19.73	2693515m	48.79143	ng
5) C15(101) #2	23.22	16221325m	47.90240	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7385.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0420\M7385.D\ECD2B.CH
 Acq On : 11-1-2014 02:24:06 AM Operator: RR
 Sample : M8371-P(2) Inst : INST. M
 Misc : NBH14-0257 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:29 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3449023	95.00000	ng
4) I C15(96) #2	20.52	14448956m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3997192	72.82414	ng
5) C15(101) #2	23.23	21368630m	68.61300	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7386.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0420\M7386.D\ECD2B.CH
 Acq On : 11-1-2014 03:08:37 AM Operator: RR
 Sample : M8372-P(2) Inst : INST. M
 Misc : NBH14-0261 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:31 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3992391	95.00000	ng
4) I C15(96) #2	20.52	14437474m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	8398292	136.90919	ng
5) C15(101) #2	23.23	39016034m	137.31541	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7393.D\ECD1A.CH Vial: 30
 Signal #2 : I:\M\DATA\SM0420\M7393.D\ECD2B.CH
 Acq On : 11-1-2014 08:19:54 AM Operator: RR
 Sample : M8403-P(2) Inst : INST. M
 Misc : NBH14-0165 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:54 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3790051	95.00000	ng
4) I C15(96) #2	20.52	15506717m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2306846	36.92203	ng
5) C15(101) #2	23.23	12129163m	35.19532	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7394.D\ECD1A.CH Vial: 31
 Signal #2 : I:\M\DATA\SM0420\M7394.D\ECD2B.CH
 Acq On : 11-1-2014 09:04:28 AM Operator: RR
 Sample : M8156-P-D(4) Inst : INST. M
 Misc : NBH14-0017 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:39:56 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3466074	95.00000	ng
4) I C15(96) #2	20.52	16621213m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2392199	42.17884	ng
5) C15(101) #2	23.23	12009794m	32.47556	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7396.D\ECD1A.CH Vial: 33
 Signal #2 : I:\M\DATA\SM0420\M7396.D\ECD2B.CH
 Acq On : 01 Nov 2014 10:33 am Operator: RR
 Sample : M8163-P-D(4) Inst : INST. M
 Misc : NBH14-0045 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:03 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:39:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3302286	95.00000	ng
4) I C15(96) #2	20.52	15622191m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1466852	26.37915	ng
5) C15(101) #2	23.23	7064744m	20.38838	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7397.D\ECD1A.CH Vial: 34
 Signal #2 : I:\M\DATA\SM0420\M7397.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:17 am Operator: RR
 Sample : M8164-P-D(4) Inst : INST. M
 Misc : NBH14-0049 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:05 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3315341	95.00000	ng
4) I C15(96) #2	20.52	15602009m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3454811	65.11611	ng
5) C15(101) #2	23.23	17272678m	50.38331	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7398.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0420\M7398.D\ECD2B.CH
 Acq On : 01 Nov 2014 12:02 pm Operator: RR
 Sample : M8165-P-D(4) Inst : INST. M
 Misc : NBH14-0053 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:09 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3372956	95.00000	ng
4) I C15(96) #2	20.52	16177406m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1126308	19.35682	ng
5) C15(101) #2	23.23	5957318m	16.71081	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7404.D\ECD1A.CH Vial: 41
 Signal #2 : I:\M\DATA\SM0420\M7404.D\ECD2B.CH
 Acq On : 11-1-2014 04:29:29 PM Operator: RR
 Sample : M8355-P-D(4) Inst : INST. M
 Misc : NBH14-0203 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:29 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3477013m	95.00000	ng
4) I C15(96) #2	20.52	16006335m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	6552761	121.75830	ng
5) C15(101) #2	23.23	34730048m	105.44420	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7405.D\ECD1A.CH Vial: 42
 Signal #2 : I:\M\DATA\SM0420\M7405.D\ECD2B.CH
 Acq On : 11-1-2014 05:13:56 PM Operator: RR
 Sample : M8358-P-D(4) Inst : INST. M
 Misc : NBH14-0215 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:32 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3343615	95.00000	ng
4) I C15(96) #2	20.52	16181889m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	2223326	40.54967	ng
5) C15(101) #2	23.23	11928443m	33.13915	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7406.D\ECD1A.CH Vial: 43
 Signal #2 : I:\M\DATA\SM0420\M7406.D\ECD2B.CH
 Acq On : 11-1-2014 05:58:26 PM Operator: RR
 Sample : M8359-P-D(4) Inst : INST. M
 Misc : NBH14-0219 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:35 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3679872	95.00000	ng
4) I C15(96) #2	20.52	15729907m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2491707	41.33538	ng
5) C15(101) #2	23.23	12120156m	34.66141	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7411.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0420\M7411.D\ECD2B.CH
 Acq On : 11-1-2014 09:40:38 PM Operator: RR
 Sample : M8373-P-D(4) Inst : INST. M
 Misc : NBH14-0265 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:50 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3271043	95.00000	ng
4) I C15(96) #2	20.52	15691204m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2160939	40.27092	ng
5) C15(101) #2	23.23	11040176m	31.61459	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7412.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0420\M7412.D\ECD2B.CH
 Acq On : 01 Nov 2014 10:25 pm Operator: RR
 Sample : M8383-P-D(4) Inst : INST. M
 Misc : NBH14-0314 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:53 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3422873	95.00000	ng
4) I C15(96) #2	20.52	15625537m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	4294659	79.17458	ng
5) C15(101) #2	23.23	20607775m	60.64667	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7413.D\ECD1A.CH Vial: 50
 Signal #2 : I:\M\DATA\SM0420\M7413.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:09 pm Operator: RR
 Sample : M8384-P-D(4) Inst : INST. M
 Misc : NBH14-0318 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:40:56 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3468014	95.00000	ng
4) I C15(96) #2	20.52	15873942m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2846068	50.63747	ng
5) C15(101) #2	23.23	14123174m	40.15109	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7414.D\ECD1A.CH Vial: 51
 Signal #2 : I:\M\DATA\SM0420\M7414.D\ECD2B.CH
 Acq On : 01 Nov 2014 11:54 pm Operator: RR
 Sample : M8385-P-D(4) Inst : INST. M
 Misc : NBH14-0322 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:41:00 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3195384	95.00000	ng
4) I C15(96) #2	20.52	16417848m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1421218	26.41613	ng
5) C15(101) #2	23.23	7682799m	21.08116	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0420\M7415.D\ECD1A.CH Vial: 52
 Signal #2 : I:\M\DATA\SM0420\M7415.D\ECD2B.CH
 Acq On : 02 Nov 2014 12:38 am Operator: RR
 Sample : M8386-P-D(4) Inst : INST. M
 Misc : NBH14-0326 5-128 14-0494 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 16:41:03 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 16:40:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3347894	95.00000	ng
4) I C15(96) #2	20.52	15959738m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3300286	61.41990	ng
5) C15(101) #2	23.23	17205203m	48.99905	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED
Batch 14-0495
Package DP-14-0677

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061


Battelle
The Business of Innovation


USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED


Batch 14-0495
Package DP-14-0677

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061






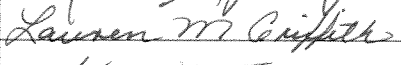

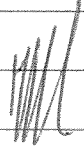



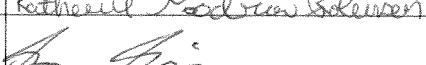
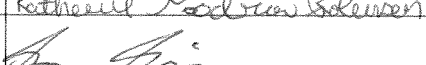

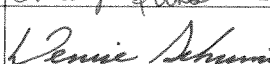











Analyst Approval:  Rich Restucci
2014.11.21 11:39:57 -05'00'

QC Chemist Approval:  Carla Devine
2014.12.10 11:02:10 -05'00'

Project Manager Approval:  Carole McCarthy
2014.12.11 07:39:53 -05'00'

Battelle
The Business of Innovation

2014 Signature Page

Name (print)	Name (signature)	Initials
Matt Schumitz		MNS
Ellyn M Webb		EMW
Carla Devine		CRD
Roxanne M. Brackett		RMB
Robert Lizotte, Jr.		BL
Lauren M Griffith		LMG
Kevin M. McInerney		KMC
Michael McGee		
Rich Restucci		RR
Stephanie Hart		SAH
Kerry Davis		KPD
Katherine Goodrow Robinson		KGR
Sam Guimaraes		SAG
Emily Fraser		EF
Denise Schumitz		DAS
Jonathan Thorn		JRT
Christie Usher		CU
Caitlyn Farragher		CNF
Mart J. Benotti		
William H Brown		WB
Dawn Trapp		DBT
Carolee S. Lynn McLain		CSM
Weidong Li		W.L
Jeannine Seyfert		JS
FRANCO PALA		FP

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED
Batch 14-0495
Package DP-14-0677

1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	23
3	<i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	34
4	<i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	51
5	<i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	82
6	<i>Analytical Data</i> Raw Data Quantification Reports.	147
7	<i>Chromatograms</i> Sample And Standard Chromatograms.	N/A
8	<i>Unused Data</i>	N/A

WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: USACE-NAE New Bedford Harbor LTM MDL Study
Project Number: 100053747
Client: USACE/NAE
696 Virginia Road
Concord, MA 01742
USA
Client Contact Information: Peter Hugh
Engineering Technical Lead
(978) 318-8452(V)
NA
NA
Effective Date of QAPP: 10/9/2014
Version Number: 100053747(S)-02
Project Manager: Peven-McCarthy, Carole
Laboratory Task Manager: Peven-McCarthy, Carole
Deliverable Due Date: 11/3/2014

2.0 SCOPE OF WORK

Overview: A project-specific MDL study is required for this project.
Matrix: Soil/Sediment

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions: Store frozen.
Sub_Sampling: None
Procedures: NA
Contact: NA
Comment: NA
Archiving: NA
Disposal: NA

WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

NA

Samples Expected:	Samples Per Batch:	Batches Expected:
	20	

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

Type:	Description:	Count:	Rgt:	Reference:	Comment:
PB	Laboratory control reagent blank.	1 per batch	--	NA	
LCS	Laboratory Control Sample	1 per batch	No	NA	
MDL	Method Detection Limits	8 per batch	Yes	140304-02: Mud Dump Reference N4415 Lot:N4415	

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev:	5-192-14
SOP Title:	<i>Soil/Sediment Extraction for Trace Level Semi-Volatile Organic Contaminant Analysis</i>
Sample Size:	10 g
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	NA
Comments:	NA

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB Surrogate	ID59 SIS	~ 100 ng	100 uL	NA
ECD LCS/MS Solution	HX10 LCS/MS	~ 38 - 150 ng	75 uL	LCS
PDL spike ECD	ID73 LCS/MS	~ 7.5 - 30.0 ng	150 uL	MDL samples

2.1.3.2 Cleanup

WORK/QUALITY ASSURANCE PROJECT PLAN

- | | | |
|----|--------------|---|
| 1) | SOP No.-Rev: | 5-328-04 |
| | SOP Title: | <i>Removal (cleanup) of Sulfur from Environmental Sample Extracts</i> |
| | Deviations: | NA |
| | Comments: | NA |
| 2) | SOP No.-Rev: | 5-327-04 |
| | SOP Title: | <i>Florisil Cleanup of Environmental Sample Extracts</i> |
| | Deviations: | Elute with Hexane only |
| | Comments: | NA |

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB IS	IE11 RIS	~ 100 ng	100 uL	NA

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

- | | | |
|----|-------------|---|
| 1) | SOP_No-Rev: | 5-128-13 |
| | SOP_Title: | <i>Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection</i> |
| | Deviations: | NA |
| | Comments: | Report SIS corrected data |

2.2. DELIVERABLES

Deliverables Due:	11/3/2014
LIMS Reports:	Yes
Histograms:	No
Excel Tables:	Yes
EICs:	No
Chromatograms:	No

WORK/QUALITY ASSURANCE PROJECT PLAN

EDDs: *Yes*

Comments:

Required 30 day TAT.

EDD required.

Full data package (pdf) required for external validation.

Detailed quant reports are not required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

Staff Member	Role	Comment
Carole S. Peven-McCarthy	Project Manager	NA
Samuel A. Guimaraes	Sample Preparation	NA
Richard P. Restucci Jr	GC/ECD Analysis	NA
Matt D. Schumitz	Sample Custody	NA
Carla R. Devine	Quality Control Officer	NA

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	10/03/2014	NA	0	NA
Sample Preparation	10/06/2014	10/09/2014	3	NA
Instrument Analysis	10/09/2014	10/24/2014	15	NA

WORK/QUALITY ASSURANCE PROJECT PLAN

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Quality Control Review	10/27/2014	10/29/2014	2	NA
Final Data Reporting	10/29/2014	10/31/2014	2	NA

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

Labor Activity:	Hours/ Batch:	Batches:	Total Hours:	Comment:
Sample Receipt	1	1	1	NA
Sample Preparation	24	1	24	NA
<i>Extraction</i>	20			
<i>glassware</i>	4			
Instrument Analysis	16	1	16	NA
<i>GC/ECD</i>	16			
Quality Control Review	3	1	3	NA
Final Data Reporting	1	1	1	NA

7.0 STAFF DEVELOPMENT

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name:	Master_128
SOP Reference:	5-128 - Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection
Description:	Pesticide / PCB by GC/ECD
Matrix:	S - Solid Samples, like soil or sediment, prepared and analyzed under the same class of detection limits.
Detection Limit Study:	5-128-2013-ssMDL-SF
Instrument:	ECD
MQO Criteria	USACE/NBH LTMP
Standard Report:	Standard Result Report

Method Specific Reporting		Holding Times (days)		Data Flags
Result Units:	ng/g	Unit Conversion:	(none)	Sample: 14 DL_Flag: U
Weight Basis:	DRY	Result Format:	Significant Figure	Frozen: 365 RL_Flag: J
Standard Basis:	SIS	# of Figures/Digits:	3	Extract: 40 PB_Flag: B
Oil Weight Basis:	No	Oil Weight Source:	Oil Weight	DIL_Flag: D
U-Value Substitution:	U-Flag=NED	Histograms:	No	HT_Flag: T
ECD_Reporting:	Yes			
ECD_Result:	Higher	ECD_Flag	p	
RPD_Limit (<%):	40	ECD_Manual_Flag:	m	

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Cl2(8)	Cl2(8)	T	Cl5(96)	Cl3(34)	No	No
2	Cl3(18)	Cl3(18)	T	Cl5(96)	Cl3(34)	No	No
3	Cl3(28)	Cl3(28)	T	Cl5(96)	Cl3(34)	No	No
4	Cl4(44)	Cl4(44)	T	Cl5(96)	Cl3(34)	No	No
5	Cl4(52)	Cl4(52)	T	Cl5(96)	Cl3(34)	No	No
6	Cl4(66)	Cl4(66)	T	Cl5(96)	Cl3(34)	No	No
7	Cl5(101)	Cl5(101)	T	Cl5(96)	Cl3(34)	No	No
8	Cl5(105)	Cl5(105)	T	Cl6(161)	Cl6(152)	No	No
9	Cl5(118)	Cl5(118)	T	Cl6(161)	Cl6(152)	No	No
10	Cl6(128)	Cl6(128)	T	Cl6(161)	Cl6(152)	No	No
11	Cl6(138)	Cl6(138)	T	Cl6(161)	Cl6(152)	No	No
12	Cl6(153)	Cl6(153)	T	Cl6(161)	Cl6(152)	No	No
13	Cl7(170)	Cl7(170)	T	Cl6(161)	Cl6(152)	No	No
14	Cl7(180)	Cl7(180)	T	Cl6(161)	Cl6(152)	No	No
15	Cl7(187)	Cl7(187)	T	Cl6(161)	Cl6(152)	No	No
16	Cl8(195)	Cl8(195)	T	Cl6(161)	Cl6(152)	No	No

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
17	CI9(206)	CI9(206)	T	CI6(161)	CI6(152)	No	No
18	CI10(209)	CI10(209)	T	CI6(161)	CI6(152)	No	No
1	CI3(34)	CI3(34)	SIS	CI5(96)		No	No
2	CI6(152)	CI6(152)	SIS	CI6(161)		No	No
Total Analytes:		20					

Subtract Peaks:

None

Sum Peaks:

None

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

ICAL Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Continuing Calibration Verification Criteria:

CCV Name: 5-128

Frequency Hrs:	Mean PD(%):	Individual PD(%):	RIS/SIS RT Window (min):	Area Limit Low(%):	Area Limit High(%):	Comment:
24 (N)	15 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Independent Calibration Verification:

ICC Name: 5-128

Mean PD Limit(%):	Ind. PD Limit(%):	RIS/SIS Window Limit (Secs):	Area Limit High(%):	Area Limit Low(%):	Comment:
20 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Mass Discrimination Criteria:

None

Degradation Check Criteria:

Degradation Check Name: 5-128

DDT Breakdown Limit (%):	Endrin Breakdown Limit(%):	Total Breakdown Limit(%):	Comment:
20 (N)	20 (N)	20 (N)	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Procedural Blank	Samples must be greater than five times the blank concentration (>5xPB).	B	Review with Project Manager; re-analyze or justify results in project records.
PB Measurement Quality Objective	Organic results in the Procedural Blank are less than the ssRL (<ssRL)	N	
Laboratory Control Sample	Recovery values 70-130%.	N	Review with project manager; re-analyze or justify reporting the results in project records.
Matrix Spike Recovery	Organics 70-130%. Analyte concentration in MS must be >5 times reported background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Matrix Spike/Spike Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Spike must be >5x background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Standard Reference Material Accuracy	Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit (>5xMDL).	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the MDL	n	
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Concentration must be >10X the MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 10 times the MDL	n	
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Concentration must be >10X the MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 10 times the MDL	n	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Surrogate Compound Recovery	Recovery results between 40% and 120%.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Control Oil	RPD < 30% for at least 90% of analytes	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Instrument Calibration	5-128-13: R-squared greater than or equal to 0.995 Mean RSD less than or equal to 15%, Individual RSD less than or equal to 25%	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Independent Calibration Check Solution	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 20%.	N	Review with Project Manager; re-analyze or justify in project records.
Continuing Calibration Verification	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 15%.	N	

Sample Receipt Form

Approved: Authorized:

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA

COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler		None	Intact	Intact	1.0	23

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0117 (NA) BDO IDs Assigned: M8152 - M8174

Samples logged in by: Schumitz, Matt Date/Time: 09/26/2014 12:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8152	NBH14-0001	09/22/14 15:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8153	NBH14-0005	09/22/14 14:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8154	NBH14-0009	09/22/14 11:16	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8155	NBH14-0013	09/22/14 12:08	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8156	NBH14-0017	09/22/14 8:13	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8157	NBH14-0021	09/22/14 11:38	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8158	NBH14-0025	09/22/14 9:37	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8159	NBH14-0029	09/22/14 10:40	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8160	NBH14-0033	09/22/14 15:25	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8161	NBH14-0037	09/22/14 14:03	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8162	NBH14-0041	09/22/14 13:06	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8163	NBH14-0045	09/23/14 15:43	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8164	NBH14-0049	09/23/14 14:57	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8165	NBH14-0053	09/23/14 13:53	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8166	NBH14-0061	09/23/14 10:12	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8167	NBH14-0065	09/23/14 9:09	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8168	NBH14-0073	09/23/14 14:27	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8169	NBH14-0077	09/23/14 13:39	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8170	NBH14-0081	09/23/14 12:26	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8171	NBH14-0085	09/23/14 11:29	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8172	NBH14-0089	09/23/14 10:32	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8173	NBH14-0093	09/23/14 9:53	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8174	NBH14-0097	09/23/14 8:57	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	

Total Samples: 23



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-587

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:24	NBH14-0001	M8152	SED	120-14LTM	1	X						
9/22/2014	14:24	NBH14-0005	M8153	SED	125-14LTM	1	X						
9/22/2014	11:16	NBH14-0009	M8154	SED	130-14LTM	1	X						
9/22/2014	12:08	NBH14-0013	M8155	SED	134-14LTM	1	X						
9/22/2014	8:13	NBH14-0017	M8156	SED	150-14LTM	1	X						
9/22/2014	11:38	NBH14-0021	M8157	SED	253-14LTM	1	X						
9/22/2014	9:37	NBH14-0025	M8158	SED	216-14LTM	1	X						
9/22/2014	10:40	NBH14-0029	M8159	SED	220-14LTM	1	X						
9/22/2014	15:25	NBH14-0033	M8160	SED	235-14LTM	1	X						
9/22/2014	14:03	NBH14-0037	M8161	SED	240-14LTM	1	X						
9/22/2014	13:06	NBH14-0041	M8162	SED	245-14LTM	1	X						
9/23/2014	15:43	NBH14-0045	M8163	SED	146-14LTM	1	X						
9/23/2014	14:57	NBH14-0049	M8164	SED	140-14LTM	1	X						
9/23/2014	13:53	NBH14-0053	M8165	SED	202-14LTM	1	X						
9/23/2014	10:12	NBH14-0061	M8166	SED	147-14LTM	1	X						
9/23/2014	9:09	NBH14-0065	M8167	SED	135-14LTM	1	X						
9/23/2014	14:27	NBH14-0073	M8168	SED	333-14LTM	1	X						
9/23/2014	13:39	NBH14-0077	M8169	SED	339-14LTM	1	X						
9/23/2014	12:26	NBH14-0081	M8170	SED	346-14LTM	1	X						
9/23/2014	11:29	NBH14-0085	M8171	SED	340-14LTM	1	X						

Relinquished By (name/date/time):

J M Jones 9/26/14 9:15

Received By(name/date/time):

MW 9/26/14 9:15



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF


Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-588


Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	10:32	NBH14-0089	M8172	SED	341-14LTM	1	X						
9/23/2014	9:53	NBH14-0093	M8173	SED	334-14LTM	1	X						
9/23/2014	8:57	NBH14-0097	M8174	SED	335-14LTM	1	X						

Relinquished By (name/date/time):

 9/26/14 9:15

Received By(name/date/time):

 9/26/14

Sample Receipt Form

Approved: Authorized

Project Number: 100043429 Client: USACE
Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM
No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA
COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler	NA	Custody Seals	Intact	Intact	1.2	60

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.2 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0113 (NA) BDO IDs Assigned: M8347 - M8406
Samples logged in by: Schumitz, Matt Date/Time: 10/01/2014 12:00 AM
Approved By: Devine, Carla Approved On: 12/5/2014 9:32:00 AM
Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8347	NBH14-0057	09/30/14 10:09	10/02/14 10:08	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8348	NBH14-0069	09/30/14 10:25	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8349	NBH14-0181	09/26/14 8:36	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8350	NBH14-0185	09/26/14 9:50	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8351	NBH14-0189	09/26/14 11:00	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8352	NBH14-0193	09/26/14 12:49	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8353	NBH14-0197	09/26/14 13:38	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8354	NBH14-0199	09/26/14 14:24	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8355	NBH14-0203	09/26/14 15:17	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8356	NBH14-0207	09/26/14 14:32	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8357	NBH14-0211	09/26/14 13:36	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8358	NBH14-0215	09/26/14 8:21	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8359	NBH14-0219	09/26/14 8:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8360	NBH14-0220	09/26/14 9:24	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8361	NBH14-0224	09/26/14 10:54	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8362	NBH14-0228	09/26/14 11:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8363	NBH14-0232	09/25/14 14:16	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8364	NBH14-0233	09/26/14 8:56	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8365	NBH14-0234	09/24/14 14:40	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8366	NBH14-0237	09/29/14 15:14	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8367	NBH14-0241	09/29/14 15:54	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8368	NBH14-0245	09/29/14 8:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8369	NBH14-0249	09/29/14 9:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8370	NBH14-0253	09/29/14 10:01	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8371	NBH14-0257	09/29/14 12:47	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8372	NBH14-0261	09/29/14 14:39	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8373	NBH14-0265	09/29/14 15:26	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8374	NBH14-0269	09/29/14 8:13	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8375	NBH14-0273	09/29/14 9:08	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8376	NBH14-0277	09/29/14 9:52	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8377	NBH14-0281	09/29/14 10:45	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8378	NBH14-0285	09/29/14 11:15	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8379	NBH14-0289	09/29/14 12:27	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8380	NBH14-0302	09/30/14 8:00	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8381	NBH14-0306	09/30/14 9:02	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8382	NBH14-0310	09/30/14 9:59	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8383	NBH14-0314	09/30/14 11:47	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8384	NBH14-0318	09/30/14 12:41	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8385	NBH14-0322	09/30/14 13:44	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8386	NBH14-0326	09/30/14 14:36	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8387	NBH14-0101	09/24/14 10:17	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8388	NBH14-0105	09/24/14 9:18	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8389	NBH14-0109	09/24/14 10:56	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8390	NBH14-0113	09/24/14 12:10	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8391	NBH14-0117	09/24/14 13:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8392	NBH14-0121	09/24/14 14:24	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8393	NBH14-0125	09/25/14 8:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8394	NBH14-0129	09/25/14 9:49	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8395	NBH14-0133	09/25/14 11:00	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8396	NBH14-0137	09/25/14 11:32	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8397	NBH14-0141	09/25/14 12:58	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8398	NBH14-0145	09/25/14 14:03	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8399	NBH14-0149	09/25/14 14:56	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8400	NBH14-0153	09/25/14 8:19	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8401	NBH14-0157	09/25/14 9:06	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8402	NBH14-0161	09/25/14 9:55	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8403	NBH14-0165	09/25/14 12:58	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8404	NBH14-0169	09/25/14 14:11	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8405	NBH14-0173	09/25/14 15:14	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8406	NBH14-0177	09/26/14 7:39	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Total Samples: 60



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057	M0347	SED	151-14LTM	1	X						
9/30/2014	10:25	NBH14-0069	" " 48	SED	155-14LTM	1	X						
9/26/2014	8:36	NBH14-0181	49	SED	242-14LTM	1	X						
9/26/2014	9:50	NBH14-0185	50	SED	241-14LTM	1	X						
9/26/2014	11:00	NBH14-0189	51	SED	237-14LTM	1	X						
9/26/2014	12:49	NBH14-0193	52	SED	236-14LTM	1	X						
9/26/2014	13:38	NBH14-0197	53	SED	231-14LTM	1	X						
9/26/2014	14:24	NBH14-0199	54	SED	230-14LTM	1	X						
9/26/2014	15:17	NBH14-0203	55	SED	117-14LTM	1	X						
9/26/2014	14:32	NBH14-0207	56	SED	114-14LTM	1	X						
9/26/2014	13:36	NBH14-0211	57	SED	111-14LTM	1	X						
9/26/2014	8:21	NBH14-0215	58	SED	152-14LTM	1	X						
9/26/2014	8:50	NBH14-0219	59	SED	152-14LTM	1	X						
9/26/2014	9:24	NBH14-0220	60	SED	138-14LTM	1	X						
9/26/2014	10:54	NBH14-0224	61	SED	126-14LTM	1	X						
9/26/2014	11:50	NBH14-0228	62	SED	108-14LTM	1	X						
9/25/2014	14:16	NBH14-0232	63	SED	139-14LTM	1	X						
9/26/2014	8:56	NBH14-0233	64	SED	242-14LTM	1	X						
9/24/2014	14:40	NBH14-0234	65	SED	306-14LTM	1	X						
9/29/2014	15:14	NBH14-0237	66	SED	222-14LTM	1	X						

Relinquished By (name/date/time):

Matthew R. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:54	NBH14-0241	M8367	SED	224-14LTM	1	X						
9/29/2014	8:06	NBH14-0245	68	SED	128-14LTM	1	X						
9/29/2014	9:06	NBH14-0249	69	SED	123-14LTM	1	X						
9/29/2014	10:01	NBH14-0253	70	SED	121-14LTM	1	X						
9/29/2014	12:47	NBH14-0257	71	SED	218-14LTM	1	X						
9/29/2014	14:39	NBH14-0261	72	SED	208-14LTM	1	X						
9/29/2014	15:26	NBH14-0265	73	SED	207-14LTM	1	X						
9/29/2014	8:13	NBH14-0269	74	SED	332-14LTM	1	X						
9/29/2014	9:08	NBH14-0273	75	SED	338-14LTM	1	X						
9/29/2014	9:52	NBH14-0277	76	SED	331-14LTM	1	X						
9/29/2014	10:45	NBH14-0281	77	SED	323-14LTM	1	X						
9/29/2014	11:15	NBH14-0285	78	SED	324-14LTM	1	X						
9/29/2014	12:27	NBH14-0289	79	SED	325-14LTM	1	X						
9/30/2014	8:00	NBH14-0302	80	SED	225-14LTM	1	X						
9/30/2104	9:02	NBH14-0306	81	SED	226-14LTM	1	X						
9/30/2014	9:59	NBH14-0310	82	SED	227-14LTM	1	X						
9/30/2014	11:47	NBH14-0314	83	SED	217-14LTM	1	X						
9/30/2014	12:41	NBH14-0318	84	SED	212-14LTM	1	X						
9/30/2014	13:44	NBH14-0322	85	SED	211-14LTM	1	X						
9/30/2014	14:36	NBH14-0326	86	SED	204-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101	M8387	SED	349-14LTM	1	X						
9/24/2014	9:18	NBH14-0105	" " 88	SED	352-14LTM	1	X						
9/24/2014	10:56	NBH14-0109	89	SED	345-14LTM	1	X						
9/24/2014	12:10	NBH14-0113	90	SED	318-14LTM	1	X						
9/24/2014	13:15	NBH14-0117	91	SED	311-14LTM	1	X						
9/24/2014	14:24	NBH14-0121	92	SED	306-14LTM	1	X						
9/25/2014	8:15	NBH14-0125	93	SED	221-14LTM	1	X						
9/25/2014	9:49	NBH14-0129	94	SED	249-14LTM	1	X						
9/25/2014	11:00	NBH14-0133	95	SED	317-14LTM	1	X						
9/25/2014	11:32	NBH14-0137	96	SED	309-14LTM	1	X						
9/25/2014	12:58	NBH14-0141	97	SED	310-14LTM	1	X						
9/25/2014	14:03	NBH14-0145	98	SED	304-14LTM	1	X						
9/25/2014	14:56	NBH14-0149	99	SED	250-14LTM	1	X						
9/25/2014	8:19	NBH14-0153	M8400	SED	105-14LTM	1	X						
9/25/2014	9:06	NBH14-0157	" " 01	SED	109-14LTM	1	X						
9/25/2014	9:55	NBH14-0161	02	SED	115-14LTM	1	X						
9/25/2014	12:58	NBH14-0165	03	SED	154-14LTM	1	X						
9/25/2014	14:11	NBH14-0169	04	SED	139-14LTM	1	X						
9/25/2014	15:14	NBH14-0173	05	SED	131-14LTM	1	X						
9/26/2014	7:39	NBH14-0177	06	SED	247-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID Procedural Blank

Battelle ID CD584PB-P
Sample Type PB
Collection Date 10/28/2014
Extraction Date 10/28/2014
Analysis Date 11/04/2014
Analytical Instrument ECD
% Moisture 7.07
% Lipid NA
Matrix SEDIMENT
Sample Size 9.38
Size Unit-Basis G_DRY
Units NG/G_DRY

Cl2(8)	0.256 U
Cl3(18)	0.257 U
Cl3(28)	0.257 U
Cl4(44)	0.257 U
Cl4(52)	0.256 U
Cl4(66)	0.256 U
Cl5(101)	0.256 U
Cl5(105)	0.257 U
Cl5(118)	0.257 U
Cl6(128)	0.257 U
Cl6(138)	0.257 U
Cl6(153)	0.257 U
Cl7(170)	0.257 U
Cl7(180)	0.257 U
Cl7(187)	0.257 U
Cl8(195)	0.257 U
Cl9(206)	0.256 U
Cl10(209)	0.257 U

Surrogate Recoveries (%)

Cl3(34)	96
Cl6(152)	92

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Laboratory Control Sample
Battelle ID	CD585LCS-P
Sample Type	LCS
Collection Date	10/28/2014
Extraction Date	10/28/2014
Analysis Date	11/04/2014
Analytical Instrument	ECD
% Moisture	7.07
% Lipid	NA
Matrix	SEDIMENT
Sample Size	9.27
Size Unit-Basis	G_DRY
Units	NG/G_DRY

		Target	% REC	Qual
CI2(8)	3.09	4.05	76	
CI3(18)	3.11	4.05	77	
CI3(28)	3.42	4.05	84	
CI4(44)	3.98	4.05	98	
CI4(52)	3.59	4.05	89	
CI4(66)	3.52	4.05	87	
CI5(101)	3.06	4.05	76	
CI5(105)	3.63	4.05	90	
CI5(118)	3.84	4.05	95	
CI6(128)	4.49	4.05	111	
CI6(138)	3.79	4.05	94	
CI6(153)	3.69	4.05	91	
CI7(170)	3.71	4.05	92	
CI7(180)	3.80	4.05	94	
CI7(187)	3.94	4.05	97	
CI8(195)	3.81	4.05	94	
CI9(206)	3.74	4.05	92	
CI10(209)	3.95	4.05	98	

Surrogate Recoveries (%)

CI3(34)	95
CI6(152)	99

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0029	NBH14-0033	NBH14-0037	NBH14-0041
Battelle ID	M8159-P	M8160-P	M8161-P	M8162-P
Sample Type	SA	SA	SA	SA
Collection Date	09/22/2014	09/22/2014	09/22/2014	09/22/2014
Extraction Date	10/28/2014	10/28/2014	10/28/2014	10/28/2014
Analysis Date	11/04/2014	11/04/2014	11/04/2014	11/04/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	2.43	40.65	3.92	1.96
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	2.42	1.45	2.40	2.46
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	59.0	28.4	190 D	31.5
Cl3(18)	121	52.3	373 D	53.5
Cl3(28)	281 D	148	676 D	157
Cl4(44)	116	51.1	400 D	57.4
Cl4(52)	468 D	183	1360 D	192
Cl4(66)	109	64.4	302 D	63.3
Cl5(101)	262 D	77.4	484 D	82.5
Cl5(105)	89.3	57.7	280 D	49.5
Cl5(118)	400 D	200	825 D	165
Cl6(128)	57.0	33.2	192 D	26.3
Cl6(138)	312 D	127	734 D	105
Cl6(153)	342 D	130	584 D	104
Cl7(170)	35.5	16.2	95.0	12.5
Cl7(180)	56.4	23.5	143	18.7
Cl7(187)	41.8	16.2	87.0	12.1
Cl8(195)	6.27	1.86	15.2	1.10
Cl9(206)	6.58	1.95	14.3	1.10
Cl10(209)	2.36	1.54 J	6.73	1.03 U

Surrogate Recoveries (%)

Cl3(34)	96	109	117	63
Cl6(152)	77	82	95	56

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0181	NBH14-0185	NBH14-0189	NBH14-0193
Battelle ID	M8349-P	M8350-P	M8351-P	M8352-P
Sample Type	SA	SA	SA	SA
Collection Date	09/26/2014	09/26/2014	09/26/2014	09/26/2014
Extraction Date	10/28/2014	10/28/2014	10/28/2014	10/28/2014
Analysis Date	11/04/2014	11/04/2014	11/04/2014	11/04/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	1.48	2.12	1.05	2.08
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	2.42	2.39	2.43	2.51
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	40.2	45.8	28.0	114
Cl3(18)	47.8	52.1	39.5	175
Cl3(28)	136	121	120	399 D
Cl4(44)	46.8	46.9	40.1	181
Cl4(52)	155	149	133	512 D
Cl4(66)	62.2	53.2	55.1	217 D
Cl5(101)	89.2	63.8	72.4	341 D
Cl5(105)	55.2	47.8	41.0	155
Cl5(118)	172	152	139	470 D
Cl6(128)	29.2	24.7	22.0	79.1
Cl6(138)	114	97.8	89.4	386 D
Cl6(153)	117	95.9	90.6	366 D
Cl7(170)	13.3	11.6	10.8	36.4
Cl7(180)	22.8	16.5	17.5	56.8
Cl7(187)	13.6	12.4	13.0	34.6
Cl8(195)	1.61	1.10	1.19	5.34
Cl9(206)	1.09	1.13	0.919 J	3.64
Cl10(209)	1.05 U	1.06 U	1.04 U	1.32

Surrogate Recoveries (%)

Cl3(34)	74	78	60	64
Cl6(152)	72	62	55	59

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0197	NBH14-0199	NBH14-0233	NBH14-0237
Battelle ID	M8353-P	M8354-P	M8364-P	M8366-P
Sample Type	SA	SA	SA	SA
Collection Date	09/26/2014	09/26/2014	09/26/2014	09/29/2014
Extraction Date	10/28/2014	10/28/2014	10/28/2014	10/28/2014
Analysis Date	11/04/2014	11/04/2014	11/04/2014	11/04/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	31.91	1.64	0.91	5.26
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	1.69	2.54	2.45	2.41
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	36.9	148 D	33.8	118
Cl3(18)	65.8	324 D	42.7	219 D
Cl3(28)	202	646 D	145 D	629 D
Cl4(44)	63.9	391 D	40.9	230 D
Cl4(52)	265 D	943 D	153	955 D
Cl4(66)	75.9	491 D	58.7	294 D
Cl5(101)	107	838 D	84.1	530 D
Cl5(105)	67.7	498 D	55.9	207 D
Cl5(118)	236 D	1460 D	181 D	881 D
Cl6(128)	40.7	306 D	29.5	150
Cl6(138)	155	1230 D	116	678 D
Cl6(153)	167	872 D	113	676 D
Cl7(170)	20.2	131 D	14.7	85.0
Cl7(180)	31.8	219 D	21.4	130
Cl7(187)	22.4	142	14.2	82.6
Cl8(195)	2.76	28.6	1.72	14.0
Cl9(206)	2.39	23.8	1.08	12.6
Cl10(209)	1.50 U	10.7	1.04 U	5.27

Surrogate Recoveries (%)

Cl3(34)	95	117	83	101
Cl6(152)	76	94	74	81

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0241	NBH14-0302	NBH14-0306	NBH14-0310
Battelle ID	M8367-P	M8380-P	M8381-P	M8382-P
Sample Type	SA	SA	SA	SA
Collection Date	09/29/2014	09/30/2014	09/30/2014	09/30/2014
Extraction Date	10/28/2014	10/28/2014	10/28/2014	10/28/2014
Analysis Date	11/05/2014	11/05/2014	11/05/2014	11/05/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	24.87	3.48	3.33	7.36
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	1.90	2.49	2.38	2.26
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	85.5	43.4	131 D	40.1
Cl3(18)	157	85.6	180 D	74.0
Cl3(28)	570 D	231 D	672 D	273 D
Cl4(44)	151	90.1	196 D	71.8
Cl4(52)	771 D	324 D	738 D	307 D
Cl4(66)	242	96.8	372 D	116
Cl5(101)	488 D	196 D	464 D	203 D
Cl5(105)	110	74.8	253 D	70.4
Cl5(118)	424 D	283 D	1020 D	269 D
Cl6(128)	92.3	53.2	153	50.5
Cl6(138)	308 D	219 D	675 D	204 D
Cl6(153)	382 D	235 D	725 D	198 D
Cl7(170)	49.2	25.1	86.7	24.3
Cl7(180)	73.3	35.9	134	37.8
Cl7(187)	61.6	24.5	94.1	27.0
Cl8(195)	8.10	3.82	15.2	4.51
Cl9(206)	8.56	3.53	14.1	3.89
Cl10(209)	4.06	0.926 J	5.65	1.65

Surrogate Recoveries (%)

Cl3(34)	52	108	108	95
Cl6(152)	72	99	76	97

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0121	NBH14-0125	NBH14-0129	NBH14-0177
Battelle ID	M8392-P	M8393-P	M8394-P	M8406-P
Sample Type	SA	SA	SA	SA
Collection Date	09/24/2014	09/25/2014	09/25/2014	09/26/2014
Extraction Date	10/28/2014	10/28/2014	10/28/2014	10/28/2014
Analysis Date	11/05/2014	11/05/2014	11/05/2014	11/05/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	0.38	2.23	1.25	3.11
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	9.95	2.47	2.49	2.39
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	0.254	U	39.0		24.6		59.0
Cl3(18)	0.255	U	56.5		36.4		64.5
Cl3(28)	0.0634	J	241	D	127	D	219
Cl4(44)	0.255	U	46.7		34.7		50.8
Cl4(52)	0.267	p	227	D	134	D	219
Cl4(66)	0.0607	J	86.7		49.4		73.9
Cl5(101)	0.474	p	156		71.0		133
Cl5(105)	0.255	U	45.4		41.8		95.2
Cl5(118)	0.234	J	215	D	147	D	291
Cl6(128)	0.255	U	32.2		23.1		38.6
Cl6(138)	0.311		156	p	101		189
Cl6(153)	0.291		144		91.4		222
Cl7(170)	0.255	U	17.9		11.5		20.0
Cl7(180)	0.255	U	25.1		16.5		33.8
Cl7(187)	0.255	U	23.6		11.4		26.3
Cl8(195)	0.255	U	2.92		1.34		3.62
Cl9(206)	0.254	U	2.42		1.20		4.29
Cl10(209)	0.255	U	0.763	J	1.02	U	0.933

Surrogate Recoveries (%)

Cl3(34)	74		84		103		114
Cl6(152)	77		84		90		82

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0037	NBH14-0037	
Battelle ID	M8161-P	M8161DUP-P	
Sample Type	SA	QADU	
Collection Date	09/22/2014	09/22/2014	
Extraction Date	10/28/2014	10/28/2014	
Analysis Date	11/04/2014	11/04/2014	
Analytical Instrument	ECD	ECD	
% Moisture	3.92	5.03	
% Lipid	NA	NA	
Matrix	SED	SED	
Sample Size	2.40	2.43	
Size Unit-Basis	G_DRY	G_DRY	
Units	NG/G_DRY	NG/G_DRY	RPD Qual

CI2(8)	190 D	209 D	9.5
CI3(18)	373 D	360 D	3.5
CI3(28)	676 D	666 D	1.5
CI4(44)	400 D	393 D	1.8
CI4(52)	1360 D	1240 D	9.2
CI4(66)	302 D	330 D	8.9
CI5(101)	484 D	466 D	3.8
CI5(105)	280 D	313 D	11.1
CI5(118)	825 D	789 D	4.5
CI6(128)	192 D	216 D	11.8
CI6(138)	734 D	782 D	6.3
CI6(153)	584 D	561 D	4.0
CI7(170)	95.0	102	7.1
CI7(180)	143	144	0.7
CI7(187)	87.0	84.8	2.6
CI8(195)	15.2	14.0	8.2
CI9(206)	14.3	12.9	10.3
CI10(209)	6.73	6.15	9.0

Surrogate Recoveries (%)

CI3(34)	117	102	
CI6(152)	95	71	

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0121	NBH14-0121			
Battelle ID	M8392-P	M8392MS-P			
Sample Type	SA	MS			
Collection Date	09/24/2014	09/24/2014			
Extraction Date	10/28/2014	10/28/2014			
Analysis Date	11/05/2014	11/05/2014			
Analytical Instrument	ECD	ECD			
% Moisture	0.38	0.00			
% Lipid	NA	NA			
Matrix	SED	SED			
Sample Size	9.95	5.05			
Size Unit-Basis	G_DRY	G_DRY			
Units	NG/G_DRY	NG/G_DRY	Target	% REC	Qual
Cl2(8)	0.254 U	11.5	12.38	93	
Cl3(18)	0.255 U	11.1	12.38	90	
Cl3(28)	0.0634 J	12.3	12.38	99	
Cl4(44)	0.255 U	14.3	12.38	116	
Cl4(52)	0.267 p	12.3	12.38	97	
Cl4(66)	0.0607 J	12.4	12.38	100	
Cl5(101)	0.474 p	11.2	12.38	87	
Cl5(105)	0.255 U	11.1	12.38	90	
Cl5(118)	0.234 J	12.0	12.38	95	
Cl6(128)	0.255 U	11.3	12.38	91	
Cl6(138)	0.311	12.7	12.38	100	
Cl6(153)	0.291	11.0	12.38	87	
Cl7(170)	0.255 U	11.1	12.38	90	
Cl7(180)	0.255 U	11.3	12.38	91	
Cl7(187)	0.255 U	11.3	12.38	91	
Cl8(195)	0.255 U	11.2	12.38	90	
Cl9(206)	0.254 U	11.2	12.38	90	
Cl10(209)	0.255 U	11.8	12.38	95	
Surrogate Recoveries (%)					
Cl3(34)	74	74			
Cl6(152)	77	82			

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID NBH14-0121

Battelle ID M8392MSD-P

Sample Type MSD

Collection Date 09/24/2014

Extraction Date 10/28/2014

Analysis Date 11/05/2014

Analytical Instrument ECD

% Moisture 1.00

% Lipid NA

Matrix SED

Sample Size 4.89

Size Unit-Basis G_DRY

Units NG/G_DRY **Target % REC Qual RPD Qual**

		Target	% REC	Qual	RPD	Qual
CI2(8)	10.5	12.78	82		12.6	
CI3(18)	11.7	12.78	92		2.2	
CI3(28)	11.6	12.78	90		9.5	
CI4(44)	14.0	12.78	110		5.3	
CI4(52)	12.2	12.78	93		4.2	
CI4(66)	12.2	12.78	95		5.1	
CI5(101)	11.5	12.78	86		1.2	
CI5(105)	12.2	12.78	95		5.4	
CI5(118)	12.7	12.78	98		3.1	
CI6(128)	12.4	12.78	97		6.4	
CI6(138)	13.4	12.78	102		2.0	
CI6(153)	12.0	12.78	92		5.6	
CI7(170)	12.3	12.78	96		6.5	
CI7(180)	12.5	12.78	98		7.4	
CI7(187)	12.3	12.78	96		5.3	
CI8(195)	12.5	12.78	98		8.5	
CI9(206)	12.2	12.78	95		5.4	
CI10(209)	12.8	12.78	100		5.1	

Surrogate Recoveries (%)

CI3(34)	92
CI6(152)	96

Glossary of Data Qualifiers

Flag: Application:

- B Analyte concentration found in the sample at a concentration <5x the level found in the procedural blank.
- D Dilution Run. Initial run outside linear range of instrument.
- E Estimate, result is greater than the highest concentration level in the calibration.
- H Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
- J Analyte detected below the sample-specific Reporting Limit (RL).
- m Confirmation column manually over-ridden by analyst, dual column quantitative analysis only.
- ME Significant Matrix Interference - Estimated value.
- MI Significant Matrix Interference - value could not be determined or estimated.
- n Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets the contingency criteria.
- N Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
- NA Not applicable
- p Dual column value exceeds RPD criteria, dual column quantitative analysis only.
- T Holding Time (HT) exceeded.
- U Analyte not detected at 3:1 signal:noise ratio.

**QA/QC Summary
Batch 14-0495**

Project:	USACE/NAE – New Bedford Harbor Long Term Monitoring
Parameters:	PCB Congeners (NOAA 18)
Laboratory:	Battelle, Norwell, MA
Matrix:	Sediment
Data Set:	DP-14-0677
Analytical SOP:	5-128
Method Reference:	EPA Method 8081B and 8082A (modified)

Sample Custody

Collection Date	Receipt Date	Temp (°C)
9/22-30/2014	9/26, 10/1/2014	1.0, 1.2

Corrective Actions	NA
Sample Storage	The sediment samples were stored frozen until extraction.
Related samples	NA

METHOD SUMMARIES

Sample Preparation	Prior to sediment extraction, an aliquot of approximately 30 g of wet sediment was placed on clean, labeled aluminum foil, covered and placed in a laboratory laminar flow hood to dry the sample to <50% moisture. Aliquots of these dried samples were weighed into sample extraction vessels for sample extraction. Approximately 2.5 to 10 g sediment was weighed out for extraction (sample weight based on historical analysis results). The sediments were spiked with surrogates, extracted three times with methylene chloride, and the extracts combined, dried over anhydrous sodium sulfate, and concentrated. The concentrated extracts were processed through Florisil to isolate the PCBs, followed by activated copper treatment to remove sulfur. The cleaned extract was concentrated and fortified with internal standard (IS) compounds prior to analysis by GC/ECD.
Prep Comments	The following sample went to very low volume approximately >1 mL pre florisil columns: M8159, M8161, M8366, M8393. Samples were put onto columns and continued through prep.

Analysis	PCBs were analyzed by gas chromatography electron capture detection (GC/ECD). An initial calibration consisting of target analytes was analyzed prior to sample analysis to demonstrate the linear range. Calibration verification was performed at the beginning and end of each 24-hr period in which samples were analyzed. Concentrations of target compounds were calculated versus internal standards using the average response factors (RF) generated from the initial calibration.
Analysis Comments	<ul style="list-style-type: none"> Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed

**QA/QC Summary
Batch 14-0495**

	<p>inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.</p> <ul style="list-style-type: none"> • In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency. • In cases where p qualifiers are present, integrations and data were reviewed. • Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak. Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
--	---

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/28-29/2014	11/4-5,20-21/2014

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
Blank value <5x ssMDL	No exceedances noted.
Samples >5X PB	No comments.

Laboratory Control Spike	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
70-130% recovery	No exceedances noted.
	No comments.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	A MS/MSD pair was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy. The relative percent difference (RPD) was calculated to measure data quality in terms of precision.
70-130% recovery	No exceedances noted
<30% RPD	No comments.
Spike must be >5x bkgd conc.	

**QA/QC Summary
Batch 14-0495**

Sample Duplicate (DUP)	A laboratory duplicate of one sediment was prepared with the analytical batch. The relative percent difference (RPD) was calculated to measure data quality in terms of precision. NOTE: This QC sample was inadvertently included in the sample batch instead of the requested SRM.
<30% RPD	No exceedances noted.
Conc must be >10X MDL	No comments.
Surrogate Recovery	Surrogate compounds were added prior to extraction. The surrogate recoveries are calculated to measure extraction efficiency.
40-120% recovery	No exceedances noted.
	No comments.
Initial Calibration (ICAL)	The GC/ECD was calibrated with six-level quadratic calibration curve for all compounds using an instrument response factor (RF).
$R^2 \geq 0.995$	No exceedances noted.
	No comments.
Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
$\leq 20\%$ difference individual and mean	No exceedances noted.
	No comments.
Continuing Calibration Verification (CCV)	Continuing calibration standards were run every 24 hours to ensure that initial calibration is still valid.
$\leq 20\%$ difference individual; $\leq 15\%$ difference mean	Two exceedances noted.
	PCBs 206 and 209 are higher than the acceptable criteria in CCV M7442. The LCS recoveries pass in the affected bracket, and PCBs 206 and 209 represent a negligible portion of the total PCB; therefore, the bracket was not re-run.

Report Project Data Set MOOs

Project Title: USACE/NAE - New Bedford Harbor LTM

Data Set Number: DP-14-0677

Project Number: 100053747

Prep Batch Number: 14-0495

Test Code (Matrix Type): Master_128(S)

QC_PARAMETER:	Exceed:	Contg.:	JUSTIFICATION:
Procedural Blank	0	0	None
PB Measurement Quality Objective	0	0	None
Laboratory Control Sample	0	0	None
Matrix Spike Recovery	0	0	None
Matrix Spike/Spike Duplicate Precision	0	0	None
Standard Reference Material Accuracy	NA	NA	NA
Analytical Duplicate Precision	0	0	None
Analytical Triplicate Precision	NA	NA	NA
Surrogate Compound Recovery	0	0	None
Control Oil	NA	NA	NA
Instrument Calibration	0	0	None
Independent Calibration Check Solution	0	0	None
Continuing Calibration Verification	2	0	PCBs 206 and 209 are higher than the acceptable criteria in CCV M7442. As LCS recoveries pass in the affected bracket, and PCBs 206 and 209 represent a negligible portion of the total PCB, the bracket was not re-run.

RR 02/16/2015

BATTELLE - DUXBURY OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title: USACE/NAE - New Bedford Harbor LTM **Data Set Number:** DP-14-0677
Project Number: 100053747 **Prep Batch Number:** 14-0495
Entered By: Richard Restucci Jr **Entered On:** 11/21/2014
Test Code (Matrix Type): Master_128(S)

Integrations by Rich Restucci.
RR 11/20/14

Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak.

Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
RR 12/8/14

Method MM0417C utilizes the quant sheets from MM0417B.
RR 11/20/14


Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96,161, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.
RR 11/21/14

In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency.
RR 11/21/14

In cases where p qualifiers are present, integrations and data were reviewed.
RR 11/21/14

Task Leader Approval:  Kevin McInerney
2014.12.08 14:07:47 -05'00'

Supervisor Approval:

PM Approval:  Carole McCarthy
2014.12.09 07:44:34 -05'00'

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	2021371
SM0417.S	M7207.D	IE05	CS	CI5(96)	2103011
SM0417.S	M7208.D	IE06	CS	CI5(96)	2225995
SM0417.S	M7209.D	IE07	CS	CI5(96)	2400478
SM0417.S	M7210.D	IE08	CS	CI5(96)	2523572
SM0417.S	M7212.D	IE10	CS	CI5(96)	2857033

L3
(+)
(-)

2225995
4451990
1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	2508888	
SM0421.S	M7442.D	IE07	CCV	CI5(96)	2269787	
SM0421.S	M7443.D	CD584PB-P(0)	PB	CI5(96)	2993064	
SM0421.S	M7444.D	CD585LCS-P(0)	LCS	CI5(96)	2968719	
SM0421.S	M7445.D	M8159-P(2)	SA	CI5(96)	3185597	
SM0421.S	M7446.D	M8160-P(2)	SA	CI5(96)	3290035	
SM0421.S	M7447.D	M8161-P(2)	SA	CI5(96)	2499625	
SM0421.S	M7448.D	M8161DUP-P(2)	QADU	CI5(96)	2665543	
SM0421.S	M7449.D	M8162-P(2)	SA	CI5(96)	3141055	
SM0421.S	M7450.D	M8349-P(2)	SA	CI5(96)	3295682	
SM0421.S	M7451.D	M8350-P(2)	SA	CI5(96)	3483908	
SM0421.S	M7452.D	M8351-P(2)	SA	CI5(96)	3185828	
SM0421.S	M7453.D	IE08	CCV	CI5(96)	3341593	
SM0421.S	M7454.D	M8352-P(2)	SA	CI5(96)	3201354	
SM0421.S	M7455.D	M8353-P(2)	SA	CI5(96)	3328997	
SM0421.S	M7456.D	M8354-P(2)	SA	CI5(96)	2861519	
SM0421.S	M7457.D	M8364-P(2)	SA	CI5(96)	3704337	
SM0421.S	M7458.D	M8366-P(2)	SA	CI5(96)	2834857	
SM0421.S	M7459.D	M8367-P(2)	SA	CI5(96)	3094537	
SM0421.S	M7460.D	M8380-P(2)	SA	CI5(96)	3278270	
SM0421.S	M7461.D	M8381-P(2)	SA	CI5(96)	3056162	
SM0421.S	M7462.D	M8382-P(2)	SA	CI5(96)	3439824	
SM0421.S	M7463.D	M8392-P(2)	SA	CI5(96)	3308988	
SM0421.S	M7464.D	IE07	CCV	CI5(96)	3616079	
SM0421.S	M7465.D	M8392MS-P(0)	MS	CI5(96)	3574207	
SM0421.S	M7466.D	M8392MSD-P(0)	MSD	CI5(96)	3485171	
SM0421.S	M7467.D	M8393-P(2)	SA	CI5(96)	3060362	
SM0421.S	M7468.D	M8394-P(2)	SA	CI5(96)	3473344	
SM0421.S	M7469.D	M8406-P(2)	SA	CI5(96)	3345950	
SM0421.S	M7470.D	IE08	CCV	CI5(96)	3715119	
SM0425.S	M7644.D	IE07	CCV	CI5(96)	2454734	
SM0425.S	M7645.D	M8159-P-D(4)	SA	CI5(96)	2313055	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0425.S	M7647.D	M8161-P-D(4)	SA	CI5(96)	2168056	
SM0425.S	M7648.D	M8161DUP-P-D(4)	QADU	CI5(96)	2516683	
SM0425.S	M7650.D	M8393-P-D(4)	SA	CI5(96)	2746676	
SM0425.S	M7651.D	M8394-P-D(4)	SA	CI5(96)	2692233	
SM0425.S	M7652.D	M8406-P-D(4)	SA	CI5(96)	2642895	
SM0425.S	M7653.D	M8352-P-D(4)	SA	CI5(96)	2817234	
SM0425.S	M7654.D	M8353-P-D(4)	SA	CI5(96)	2570630	
SM0425.S	M7655.D	IE08	CCV	CI5(96)	3275004	
SM0425.S	M7656.D	M8354-P-D(4)	SA	CI5(96)	2497935	
SM0425.S	M7657.D	M8364-P-D(4)	SA	CI5(96)	2831047	
SM0425.S	M7658.D	M8366-P-D(4)	SA	CI5(96)	2943294	
SM0425.S	M7659.D	M8367-P-D(4)	SA	CI5(96)	2759456	
SM0425.S	M7660.D	M8380-P-D(4)	SA	CI5(96)	2986236	
SM0425.S	M7661.D	M8381-P-D(4)	SA	CI5(96)	2818250	
SM0425.S	M7662.D	M8382-P-D(4)	SA	CI5(96)	2889062	
SM0425.S	M7666.D	IE07	CCV	CI5(96)	3615358	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	4304957
SM0417.S	M7207.D	IE05	CS	Cl6(161)	4562564
SM0417.S	M7208.D	IE06	CS	Cl6(161)	4815577
SM0417.S	M7209.D	IE07	CS	Cl6(161)	5366502
SM0417.S	M7210.D	IE08	CS	Cl6(161)	5424577
SM0417.S	M7212.D	IE10	CS	Cl6(161)	5785136

L3
(+)
(-)

4815577
9631155
2407789

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	5353469	
SM0421.S	M7442.D	IE07	CCV	Cl6(161)	5231475	
SM0421.S	M7443.D	CD584PB-P(0)	PB	Cl6(161)	5884758	
SM0421.S	M7444.D	CD585LCS-P(0)	LCS	Cl6(161)	5326547	
SM0421.S	M7445.D	M8159-P(2)	SA	Cl6(161)	6340705	
SM0421.S	M7446.D	M8160-P(2)	SA	Cl6(161)	6897014	
SM0421.S	M7447.D	M8161-P(2)	SA	Cl6(161)	4985421	
SM0421.S	M7448.D	M8161DUP-P(2)	QADU	Cl6(161)	5191740	
SM0421.S	M7449.D	M8162-P(2)	SA	Cl6(161)	6527371	
SM0421.S	M7450.D	M8349-P(2)	SA	Cl6(161)	7367513	
SM0421.S	M7451.D	M8350-P(2)	SA	Cl6(161)	7614196	
SM0421.S	M7452.D	M8351-P(2)	SA	Cl6(161)	7108818	
SM0421.S	M7453.D	IE08	CCV	Cl6(161)	7226750	
SM0421.S	M7454.D	M8352-P(2)	SA	Cl6(161)	6558467	
SM0421.S	M7455.D	M8353-P(2)	SA	Cl6(161)	7301659	
SM0421.S	M7456.D	M8354-P(2)	SA	Cl6(161)	5448341	
SM0421.S	M7457.D	M8364-P(2)	SA	Cl6(161)	8405026	
SM0421.S	M7458.D	M8366-P(2)	SA	Cl6(161)	5618364	
SM0421.S	M7459.D	M8367-P(2)	SA	Cl6(161)	3809975	
SM0421.S	M7460.D	M8380-P(2)	SA	Cl6(161)	5098002	
SM0421.S	M7461.D	M8381-P(2)	SA	Cl6(161)	6753049	
SM0421.S	M7462.D	M8382-P(2)	SA	Cl6(161)	5221302	
SM0421.S	M7463.D	M8392-P(2)	SA	Cl6(161)	6603478	
SM0421.S	M7464.D	IE07	CCV	Cl6(161)	8156325	
SM0421.S	M7465.D	M8392MS-P(0)	MS	Cl6(161)	7201616	
SM0421.S	M7466.D	M8392MSD-P(0)	MSD	Cl6(161)	7104913	
SM0421.S	M7467.D	M8393-P(2)	SA	Cl6(161)	5292647	
SM0421.S	M7468.D	M8394-P(2)	SA	Cl6(161)	6195680	
SM0421.S	M7469.D	M8406-P(2)	SA	Cl6(161)	6287578	
SM0421.S	M7470.D	IE08	CCV	Cl6(161)	8337080	
SM0425.S	M7644.D	IE07	CCV	Cl6(161)	5632999	
SM0425.S	M7645.D	M8159-P-D(4)	SA	Cl6(161)	5474608	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0425.S	M7647.D	M8161-P-D(4)	SA	Cl6(161)	5402030	
SM0425.S	M7648.D	M8161DUP-P-D(4)	QADU	Cl6(161)	6017147	
SM0425.S	M7650.D	M8393-P-D(4)	SA	Cl6(161)	6510245	
SM0425.S	M7651.D	M8394-P-D(4)	SA	Cl6(161)	6153614	
SM0425.S	M7652.D	M8406-P-D(4)	SA	Cl6(161)	6151539	
SM0425.S	M7653.D	M8352-P-D(4)	SA	Cl6(161)	6921232	
SM0425.S	M7654.D	M8353-P-D(4)	SA	Cl6(161)	5952392	
SM0425.S	M7655.D	IE08	CCV	Cl6(161)	7124865	
SM0425.S	M7656.D	M8354-P-D(4)	SA	Cl6(161)	6183577	
SM0425.S	M7657.D	M8364-P-D(4)	SA	Cl6(161)	6507986	
SM0425.S	M7658.D	M8366-P-D(4)	SA	Cl6(161)	6892389	
SM0425.S	M7659.D	M8367-P-D(4)	SA	Cl6(161)	6301646	
SM0425.S	M7660.D	M8380-P-D(4)	SA	Cl6(161)	6866828	
SM0425.S	M7661.D	M8381-P-D(4)	SA	Cl6(161)	6434027	
SM0425.S	M7662.D	M8382-P-D(4)	SA	Cl6(161)	6611448	
SM0425.S	M7666.D	IE07	CCV	Cl6(161)	7938143	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl5(96)	12822282
SM0417.S	M7207.D	IE05	CS	Cl5(96)	12416297
SM0417.S	M7208.D	IE06	CS	Cl5(96)	13716870
SM0417.S	M7209.D	IE07	CS	Cl5(96)	14992953
SM0417.S	M7210.D	IE08	CS	Cl5(96)	15446142
SM0417.S	M7212.D	IE10	CS	Cl5(96)	15534608

L3 13716870
 (+) 27433739
 (-) 6858435

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl5(96)	13969685	
SM0421.S	M7442.D	IE07	CCV	Cl5(96)	14152396	
SM0421.S	M7443.D	CD584PB-P(0)	PB	Cl5(96)	15551042	
SM0421.S	M7444.D	CD585LCS-P(0)	LCS	Cl5(96)	15332474	
SM0421.S	M7445.D	M8159-P(2)	SA	Cl5(96)	12991991	
SM0421.S	M7446.D	M8160-P(2)	SA	Cl5(96)	13115245	
SM0421.S	M7447.D	M8161-P(2)	SA	Cl5(96)	10327615	
SM0421.S	M7448.D	M8161DUP-P(2)	QADU	Cl5(96)	9909362	
SM0421.S	M7449.D	M8162-P(2)	SA	Cl5(96)	13989067	
SM0421.S	M7450.D	M8349-P(2)	SA	Cl5(96)	14555472	
SM0421.S	M7451.D	M8350-P(2)	SA	Cl5(96)	14316221	
SM0421.S	M7452.D	M8351-P(2)	SA	Cl5(96)	14538542	
SM0421.S	M7453.D	IE08	CCV	Cl5(96)	18282122	
SM0421.S	M7454.D	M8352-P(2)	SA	Cl5(96)	11988827	
SM0421.S	M7455.D	M8353-P(2)	SA	Cl5(96)	13536567	
SM0421.S	M7456.D	M8354-P(2)	SA	Cl5(96)	8845590	
SM0421.S	M7457.D	M8364-P(2)	SA	Cl5(96)	14038107	
SM0421.S	M7458.D	M8366-P(2)	SA	Cl5(96)	12338344	
SM0421.S	M7459.D	M8367-P(2)	SA	Cl5(96)	11765464	
SM0421.S	M7460.D	M8380-P(2)	SA	Cl5(96)	13050134	
SM0421.S	M7461.D	M8381-P(2)	SA	Cl5(96)	10687678	
SM0421.S	M7462.D	M8382-P(2)	SA	Cl5(96)	12234942	
SM0421.S	M7463.D	M8392-P(2)	SA	Cl5(96)	16023186	
SM0421.S	M7464.D	IE07	CCV	Cl5(96)	17638012	
SM0421.S	M7465.D	M8392MS-P(0)	MS	Cl5(96)	16039992	
SM0421.S	M7466.D	M8392MSD-P(0)	MSD	Cl5(96)	16367493	
SM0421.S	M7467.D	M8393-P(2)	SA	Cl5(96)	13893912	
SM0421.S	M7468.D	M8394-P(2)	SA	Cl5(96)	13846314	
SM0421.S	M7469.D	M8406-P(2)	SA	Cl5(96)	13417130	
SM0421.S	M7470.D	IE08	CCV	Cl5(96)	18841562	
SM0425.S	M7644.D	IE07	CCV	Cl5(96)	17049609	
SM0425.S	M7645.D	M8159-P-D(4)	SA	Cl5(96)	15575129	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0425.S	M7647.D	M8161-P-D(4)	SA	CI5(96)	14491668	
SM0425.S	M7648.D	M8161DUP-P-D(4)	QADU	CI5(96)	14784349	
SM0425.S	M7650.D	M8393-P-D(4)	SA	CI5(96)	15423925	
SM0425.S	M7651.D	M8394-P-D(4)	SA	CI5(96)	15718693	
SM0425.S	M7652.D	M8406-P-D(4)	SA	CI5(96)	15043268	
SM0425.S	M7653.D	M8352-P-D(4)	SA	CI5(96)	14683120	
SM0425.S	M7654.D	M8353-P-D(4)	SA	CI5(96)	14819030	
SM0425.S	M7655.D	IE08	CCV	CI5(96)	18267071	
SM0425.S	M7656.D	M8354-P-D(4)	SA	CI5(96)	14599012	
SM0425.S	M7657.D	M8364-P-D(4)	SA	CI5(96)	15721114	
SM0425.S	M7658.D	M8366-P-D(4)	SA	CI5(96)	15100282	
SM0425.S	M7659.D	M8367-P-D(4)	SA	CI5(96)	15155810	
SM0425.S	M7660.D	M8380-P-D(4)	SA	CI5(96)	14586460	
SM0425.S	M7661.D	M8381-P-D(4)	SA	CI5(96)	15651763	
SM0425.S	M7662.D	M8382-P-D(4)	SA	CI5(96)	15432279	
SM0425.S	M7666.D	IE07	CCV	CI5(96)	19848168	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	28199596
SM0417.S	M7207.D	IE05	CS	Cl6(161)	27129752
SM0417.S	M7208.D	IE06	CS	Cl6(161)	29503850
SM0417.S	M7209.D	IE07	CS	Cl6(161)	34497986
SM0417.S	M7210.D	IE08	CS	Cl6(161)	34872167
SM0417.S	M7212.D	IE10	CS	Cl6(161)	28894537

L3 29503850
(+) 59007699
(-) 14751925

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	30447371	
SM0421.S	M7442.D	IE07	CCV	Cl6(161)	34414950	
SM0421.S	M7443.D	CD584PB-P(0)	PB	Cl6(161)	35595294	
SM0421.S	M7444.D	CD585LCS-P(0)	LCS	Cl6(161)	33734492	
SM0421.S	M7445.D	M8159-P(2)	SA	Cl6(161)	26845029	
SM0421.S	M7446.D	M8160-P(2)	SA	Cl6(161)	29050514	
SM0421.S	M7447.D	M8161-P(2)	SA	Cl6(161)	18134199	
SM0421.S	M7448.D	M8161DUP-P(2)	QADU	Cl6(161)	21400555	
SM0421.S	M7449.D	M8162-P(2)	SA	Cl6(161)	31780139	
SM0421.S	M7450.D	M8349-P(2)	SA	Cl6(161)	29185275	
SM0421.S	M7451.D	M8350-P(2)	SA	Cl6(161)	32976949	
SM0421.S	M7452.D	M8351-P(2)	SA	Cl6(161)	32542506	
SM0421.S	M7453.D	IE08	CCV	Cl6(161)	42945742	
SM0421.S	M7454.D	M8352-P(2)	SA	Cl6(161)	25218761	
SM0421.S	M7455.D	M8353-P(2)	SA	Cl6(161)	28949874	
SM0421.S	M7456.D	M8354-P(2)	SA	Cl6(161)	16002002	
SM0421.S	M7457.D	M8364-P(2)	SA	Cl6(161)	28873982	
SM0421.S	M7458.D	M8366-P(2)	SA	Cl6(161)	22909356	
SM0421.S	M7459.D	M8367-P(2)	SA	Cl6(161)	22157415	
SM0421.S	M7460.D	M8380-P(2)	SA	Cl6(161)	29376293	
SM0421.S	M7461.D	M8381-P(2)	SA	Cl6(161)	21667901	
SM0421.S	M7462.D	M8382-P(2)	SA	Cl6(161)	27466020	
SM0421.S	M7463.D	M8392-P(2)	SA	Cl6(161)	37707599	
SM0421.S	M7464.D	IE07	CCV	Cl6(161)	42315276	
SM0421.S	M7465.D	M8392MS-P(0)	MS	Cl6(161)	37822212	
SM0421.S	M7466.D	M8392MSD-P(0)	MSD	Cl6(161)	38590284	
SM0421.S	M7467.D	M8393-P(2)	SA	Cl6(161)	32098463	
SM0421.S	M7468.D	M8394-P(2)	SA	Cl6(161)	31921206	
SM0421.S	M7469.D	M8406-P(2)	SA	Cl6(161)	31195851	
SM0421.S	M7470.D	IE08	CCV	Cl6(161)	45787052	
SM0425.S	M7644.D	IE07	CCV	Cl6(161)	39504743	
SM0425.S	M7645.D	M8159-P-D(4)	SA	Cl6(161)	37002683	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0425.S	M7647.D	M8161-P-D(4)	SA	Cl6(161)	34633190	
SM0425.S	M7648.D	M8161DUP-P-D(4)	QADU	Cl6(161)	39026184	
SM0425.S	M7650.D	M8393-P-D(4)	SA	Cl6(161)	35308658	
SM0425.S	M7651.D	M8394-P-D(4)	SA	Cl6(161)	37075496	
SM0425.S	M7652.D	M8406-P-D(4)	SA	Cl6(161)	35872645	
SM0425.S	M7653.D	M8352-P-D(4)	SA	Cl6(161)	36858918	
SM0425.S	M7654.D	M8353-P-D(4)	SA	Cl6(161)	35557684	
SM0425.S	M7655.D	IE08	CCV	Cl6(161)	41724750	
SM0425.S	M7656.D	M8354-P-D(4)	SA	Cl6(161)	35229930	
SM0425.S	M7657.D	M8364-P-D(4)	SA	Cl6(161)	37602748	
SM0425.S	M7658.D	M8366-P-D(4)	SA	Cl6(161)	35045531	
SM0425.S	M7659.D	M8367-P-D(4)	SA	Cl6(161)	36447075	
SM0425.S	M7660.D	M8380-P-D(4)	SA	Cl6(161)	33530640	
SM0425.S	M7661.D	M8381-P-D(4)	SA	Cl6(161)	36533344	
SM0425.S	M7662.D	M8382-P-D(4)	SA	Cl6(161)	37848966	
SM0425.S	M7666.D	IE07	CCV	Cl6(161)	46038868	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417F.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl5(96)	2038180
SM0417.S	M7207.D	IE05	CS	Cl5(96)	2103011
SM0417.S	M7208.D	IE06	CS	Cl5(96)	2225995
SM0417.S	M7209.D	IE07	CS	Cl5(96)	2400478
SM0417.S	M7210.D	IE08	CS	Cl5(96)	2523572
SM0417.S	M7212.D	IE10	CS	Cl5(96)	2539311

L3
(+)
(-)

2225995
4451990
1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl5(96)	2508888	
SM0421.S	M7442.D	IE07	CCV	Cl5(96)	2262683	
SM0421.S	M7443.D	CD584PB-P(0)	PB	Cl5(96)	2993064	
SM0421.S	M7444.D	CD585LCS-P(0)	LCS	Cl5(96)	2860108	
SM0421.S	M7446.D	M8160-P(2)	SA	Cl5(96)	3290035	
SM0421.S	M7449.D	M8162-P(2)	SA	Cl5(96)	3141055	
SM0421.S	M7450.D	M8349-P(2)	SA	Cl5(96)	3359037	
SM0421.S	M7451.D	M8350-P(2)	SA	Cl5(96)	3483908	
SM0421.S	M7452.D	M8351-P(2)	SA	Cl5(96)	3178909	
SM0421.S	M7453.D	IE08	CCV	Cl5(96)	3341593	
SM0421.S	M7455.D	M8353-P(2)	SA	Cl5(96)	3328997	
SM0421.S	M7457.D	M8364-P(2)	SA	Cl5(96)	3704337	
SM0421.S	M7463.D	M8392-P(2)	SA	Cl5(96)	3287575	
SM0421.S	M7464.D	IE07	CCV	Cl5(96)	3616079	
SM0421.S	M7465.D	M8392MS-P(0)	MS	Cl5(96)	3574207	
SM0421.S	M7466.D	M8392MSD-P(0)	MSD	Cl5(96)	3485171	
SM0421.S	M7467.D	M8393-P(2)	SA	Cl5(96)	3247963	
SM0421.S	M7468.D	M8394-P(2)	SA	Cl5(96)	3473344	
SM0421.S	M7469.D	M8406-P(2)	SA	Cl5(96)	3460648	
SM0421.S	M7470.D	IE08	CCV	Cl5(96)	3763261	
SM0425.S	M7644.D	IE07	CCV	Cl5(96)	2460463	
SM0425.S	M7645.D	M8159-P-D(4)	SA	Cl5(96)	2313055	
SM0425.S	M7647.D	M8161-P-D(4)	SA	Cl5(96)	2168056	
SM0425.S	M7648.D	M8161DUP-P-D(4)	QADU	Cl5(96)	2470339	
SM0425.S	M7653.D	M8352-P-D(4)	SA	Cl5(96)	2817234	
SM0425.S	M7655.D	IE08	CCV	Cl5(96)	3356965	
SM0425.S	M7656.D	M8354-P-D(4)	SA	Cl5(96)	2583983	
SM0425.S	M7658.D	M8366-P-D(4)	SA	Cl5(96)	2943294	
SM0425.S	M7659.D	M8367-P-D(4)	SA	Cl5(96)	2776271	
SM0425.S	M7660.D	M8380-P-D(4)	SA	Cl5(96)	2918591	
SM0425.S	M7661.D	M8381-P-D(4)	SA	Cl5(96)	2818250	
SM0425.S	M7662.D	M8382-P-D(4)	SA	Cl5(96)	2889062	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417F.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0425.S	M7666.D	IE07	CCV	CI5(96)	3616666	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417F.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12872032
SM0417.S	M7207.D	IE05	CS	CI5(96)	13386960
SM0417.S	M7208.D	IE06	CS	CI5(96)	13612237
SM0417.S	M7209.D	IE07	CS	CI5(96)	14869473
SM0417.S	M7210.D	IE08	CS	CI5(96)	15494530
SM0417.S	M7212.D	IE10	CS	CI5(96)	15194166

L3 13612237
 (+) 27224474
 (-) 6806118

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13936712	
SM0421.S	M7442.D	IE07	CCV	CI5(96)	14180470	
SM0421.S	M7443.D	CD584PB-P(0)	PB	CI5(96)	15614386	
SM0421.S	M7444.D	CD585LCS-P(0)	LCS	CI5(96)	15400691	
SM0421.S	M7446.D	M8160-P(2)	SA	CI5(96)	14295827	
SM0421.S	M7449.D	M8162-P(2)	SA	CI5(96)	14186019	
SM0421.S	M7450.D	M8349-P(2)	SA	CI5(96)	13764477	
SM0421.S	M7451.D	M8350-P(2)	SA	CI5(96)	14082362	
SM0421.S	M7452.D	M8351-P(2)	SA	CI5(96)	14270748	
SM0421.S	M7453.D	IE08	CCV	CI5(96)	17858178	
SM0421.S	M7455.D	M8353-P(2)	SA	CI5(96)	13452913	
SM0421.S	M7457.D	M8364-P(2)	SA	CI5(96)	14088093	
SM0421.S	M7463.D	M8392-P(2)	SA	CI5(96)	16318212	
SM0421.S	M7464.D	IE07	CCV	CI5(96)	17692800	
SM0421.S	M7465.D	M8392MS-P(0)	MS	CI5(96)	16182679	
SM0421.S	M7466.D	M8392MSD-P(0)	MSD	CI5(96)	16275277	
SM0421.S	M7467.D	M8393-P(2)	SA	CI5(96)	13849536	
SM0421.S	M7468.D	M8394-P(2)	SA	CI5(96)	14010319	
SM0421.S	M7469.D	M8406-P(2)	SA	CI5(96)	13704738	
SM0421.S	M7470.D	IE08	CCV	CI5(96)	18529766	
SM0425.S	M7644.D	IE07	CCV	CI5(96)	16965716	
SM0425.S	M7645.D	M8159-P-D(4)	SA	CI5(96)	15695069	
SM0425.S	M7647.D	M8161-P-D(4)	SA	CI5(96)	14544276	
SM0425.S	M7648.D	M8161DUP-P-D(4)	QADU	CI5(96)	14607828	
SM0425.S	M7653.D	M8352-P-D(4)	SA	CI5(96)	14662486	
SM0425.S	M7655.D	IE08	CCV	CI5(96)	18240605	
SM0425.S	M7656.D	M8354-P-D(4)	SA	CI5(96)	14520763	
SM0425.S	M7658.D	M8366-P-D(4)	SA	CI5(96)	15076773	
SM0425.S	M7659.D	M8367-P-D(4)	SA	CI5(96)	15080107	
SM0425.S	M7660.D	M8380-P-D(4)	SA	CI5(96)	14570448	
SM0425.S	M7661.D	M8381-P-D(4)	SA	CI5(96)	15573877	
SM0425.S	M7662.D	M8382-P-D(4)	SA	CI5(96)	15488897	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0495

METHOD: MM0417F.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0425.S	M7666.D	IE07	CCV	CI5(96)	19606354	

BATTELLE - DUXBURY OPERATIONS SAMPLE PREPARATION RECORDS

<u>Project Title(s)</u>	<u>Project No.(s)</u>
USACE/NAE - New Bedford Harbor LTM Study	100053747
14-0495	
USACE-NAE New Bedford Harbor LTM Study	
SED	
SOP Numbers (see workplan for modifications)	
ExtractionSOP No.	5-192
CleanupSOP No.	5-327
CleanupSOP No.	5-328

This Batch Contains The Following Samples:				
CD584PB-P	M8162-P	M8354-P	M8382-P	M8406-P
CD585LCS-P	M8349-P	M8364-P	M8392-P	
M8159-P	M8350-P	M8366-P	M8392MS-P	
M8160-P	M8351-P	M8367-P	M8392MSD-P	
M8161-P	M8352-P	M8380-P	M8393-P	
M8161DUP-P	M8353-P	M8381-P	M8394-P	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Samuel Guimaraes

Approved By:	Date	Initials
Samuel Guimaraes	10/31/2014	SG

BATTELLE - DUXBURY OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Requested On/By: 10/18/2014 SG	Purpose: Sample Preparation
Relinquished On/By: 10/18/2014 SAH	Last Activity: Return
Accepted On/By: 10/18/2014 SG	Returned On/To: 10/18/2014 MDS
Stored In Facility: Sample Preparation	Returned To Facility: Custody: NA
Stored Until: 10/18/2014	
Stored Comment: NA	Returned Comment: NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	M8159	1	--	Intact	NA
2	M8160	1	--	Intact	NA
3	M8161	1	--	Intact	NA
4	M8162	1	--	Intact	NA
5	M8349	1	--	Intact	NA
6	M8350	1	--	Intact	NA
7	M8351	1	--	Intact	NA
8	M8352	1	--	Intact	NA
9	M8353	1	--	Intact	NA
10	M8354	1	--	Intact	NA
11	M8364	1	--	Intact	NA
12	M8366	1	--	Intact	NA
13	M8367	1	--	Intact	NA
14	M8380	1	--	Intact	NA
15	M8381	1	--	Intact	NA
16	M8382	1	--	Intact	NA
17	M8392	1	--	Intact	NA
18	M8393	1	--	Intact	NA
19	M8394	1	--	Intact	NA
20	M8406	1	--	Intact	NA
Total Samples		20		* "C" = Consumed Container	

BATTELLE - DUXBURY OPERATIONS SAMPLE IDENTIFICATION PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Description
CD584PB-P	Procedural Blank
CD585LCS-P	Laboratory Control Sample
M8159-P	NBH14-0029
M8160-P	NBH14-0033
M8161-P	NBH14-0037
M8161DUP-P	Lab Duplicate of NBH14-0037
M8162-P	NBH14-0041
M8349-P	NBH14-0181
M8350-P	NBH14-0185
M8351-P	NBH14-0189
M8352-P	NBH14-0193
M8353-P	NBH14-0197
M8354-P	NBH14-0199
M8364-P	NBH14-0233
M8366-P	NBH14-0237
M8367-P	NBH14-0241
M8380-P	NBH14-0302
M8381-P	NBH14-0306
M8382-P	NBH14-0310
M8392-P	NBH14-0121
M8392MS-P	Matrix Spike of NBH14-0121

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

**BATTELLE - DUXBURY OPERATIONS
SAMPLE IDENTIFICATION PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

**USACE-NAE New Bedford Harbor LTM Study
SED**

Sample ID	Description
M8392MSD-P	Matrix Spike Duplicate of NBH14-0121
M8393-P	NBH14-0125
M8394-P	NBH14-0129
M8406-P	NBH14-0177

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CD584PB-P	NA	--	NA	NA	NA	10.09	92.93	7.07	9.38
CD585LCS-P	NA	--	NA	NA	NA	9.98	92.93	7.07	9.27
M8159-P	1	--	1.12	3.18	3.13	2.48	97.57	2.43	2.42
M8160-P	1	--	1.10	2.65	2.02	2.45	59.35	40.65	1.45
M8161-P	1	--	1.08	2.61	2.55	2.50	96.08	3.92	2.40
M8161DUP-P	1	--	1.10	3.09	2.99	2.56	94.97	5.03	2.43
M8162-P	1	--	1.09	3.64	3.59	2.51	98.04	1.96	2.46
M8349-P	1	--	1.11	3.14	3.11	2.46	98.52	1.48	2.42
M8350-P	1	--	1.10	3.46	3.41	2.44	97.88	2.12	2.39
M8351-P	1	--	1.11	3.01	2.99	2.46	98.95	1.05	2.43
M8352-P	1	--	1.11	2.55	2.52	2.56	97.92	2.08	2.51
M8353-P	1	--	1.09	2.97	2.37	2.48	68.09	31.91	1.69
M8354-P	1	--	1.11	2.94	2.91	2.58	98.36	1.64	2.54
M8364-P	1	--	1.10	3.30	3.28	2.47	99.09	0.91	2.45
M8366-P	1	--	1.10	2.81	2.72	2.54	94.74	5.26	2.41
M8367-P	1	--	1.10	2.99	2.52	2.53	75.13	24.87	1.90
M8380-P	1	--	1.12	3.13	3.06	2.58	96.52	3.48	2.49
M8381-P	1	--	1.08	2.28	2.24	2.46	96.67	3.33	2.38
M8382-P	1	--	1.08	2.71	2.59	2.44	92.64	7.36	2.26
M8392-P	1	--	1.10	3.71	3.70	9.99	99.62	0.38	9.95
M8392MS-P	1	--	1.12	2.42	2.42	5.05	100.00	0.00	5.05
M8392MSD-P	1	--	1.09	3.10	3.08	4.94	99.00	1.00	4.89
M8393-P	1	--	1.11	2.90	2.86	2.53	97.77	2.23	2.47

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
M8394-P	1	--	1.11	2.71	2.69	2.52	98.75	1.25	2.49
M8406-P	1	--	1.09	3.02	2.96	2.47	96.89	3.11	2.39

Validation of: Wet Wt.	Performed: 10/31/14 SG
----------------------------------	----------------------------------

Sample ID:	Comments:	Reference:
CD584PB-P	Average of percent dry weights from authentic samples in Batch No. 14-0495 USACE-NAE New Bedford Harbor LTM Study	NA
CD585LCS-P	Average of percent dry weights from authentic samples in Batch No. 14-0495 USACE-NAE New Bedford Harbor LTM Study	NA

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
SURROGATE SPIKE FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CD584PB-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
CD585LCS-P	HX10	LCS/MS	8	75	10/28/14 SG	KAW	NA
CD585LCS-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8159-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8160-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8161-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8161DUP-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8162-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8349-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8350-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8351-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8352-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8353-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8354-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8364-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8366-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8367-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8380-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8381-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8382-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8392-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8392MS-P	HX10	LCS/MS	8	125	10/28/14 SG	KAW	NA
M8392MS-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8392MSD-P	HX10	LCS/MS	8	125	10/28/14 SG	KAW	NA
M8392MSD-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8393-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA

BATTELLE - DUXBURY OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
M8394-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA
M8406-P	ID59	SIS	3	400	10/28/14 SG	KAW	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
HX10	Pipette	H0500262B
ID59	Pipette	B1100330B



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
CD584PB-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
CD585LCS-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8159-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8160-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8161-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8161DUP-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8162-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8349-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8350-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8351-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8352-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8353-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8354-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8364-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8366-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8367-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8380-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8381-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8382-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8392-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8392MS-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8392MSD-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8393-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8394-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA
M8406-P	10/28/14 KAW	10/29/14 KAW	10/29/14 KAW	NA	NA	65	NA

BATTELLE - DUXBURY OPERATIONS SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
-----------	------------------	-------------------	------------------	----------	-----------	-------	---------

Reagents:

Name	Expires	Lot No	Procedure	Comments
Sodium Sulfate	11/04/14	0000081084	Muffled at 400 °C for more than 4 hours. Expiration date changed from original after reagent was consumed.	

Solvents:

Name	Lot No	Comments
DCM Cycletainer	0000092595	
Hexane	0000078260	Solvent exchanged during concentration



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT CLEANUP FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
CD584PB-P(0)	10/31/14	KAW	NA
CD585LCS-P(0)	10/31/14	KAW	NA
M8159-P(0)	10/31/14	KAW	NA
M8160-P(0)	10/31/14	KAW	NA
M8161-P(0)	10/31/14	KAW	NA
M8161DUP-P(0)	10/31/14	KAW	NA
M8162-P(0)	10/31/14	KAW	NA
M8349-P(0)	10/31/14	KAW	NA
M8350-P(0)	10/31/14	KAW	NA
M8351-P(0)	10/31/14	KAW	NA
M8352-P(0)	10/31/14	KAW	NA
M8353-P(0)	10/31/14	KAW	NA
M8354-P(0)	10/31/14	KAW	NA
M8364-P(0)	10/31/14	KAW	NA
M8366-P(0)	10/31/14	KAW	NA
M8367-P(0)	10/31/14	KAW	NA
M8380-P(0)	10/31/14	KAW	NA
M8381-P(0)	10/31/14	KAW	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT CLEANUP FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
M8382-P(0)	10/31/14	KAW	NA
M8392-P(0)	10/31/14	KAW	NA
M8392MS-P(0)	10/31/14	KAW	NA
M8392MSD-P(0)	10/31/14	KAW	NA
M8393-P(0)	10/31/14	KAW	NA
M8394-P(0)	10/31/14	KAW	NA
M8406-P(0)	10/31/14	KAW	NA

Cleanup:

Copper Cleanup

Reagents:

Name	Expires	Lot No	Procedure
Copper, granular, 10-40 mesh	10/22/19	MKBT0084V	NA
Activated Copper	10/31/14	MKBT0084V	Activated according to Cleanup SOP (5-328)



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
COLUMN FRACTIONATION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
CD584PB-P(0)	10/30/14	KAW	NA
CD585LCS-P(0)	10/30/14	KAW	NA
M8159-P(0)	10/30/14	KAW	NA
M8160-P(0)	10/30/14	KAW	NA
M8161-P(0)	10/30/14	KAW	NA
M8161DUP-P(0)	10/30/14	KAW	NA
M8162-P(0)	10/30/14	KAW	NA
M8349-P(0)	10/30/14	KAW	NA
M8350-P(0)	10/30/14	KAW	NA
M8351-P(0)	10/30/14	KAW	NA
M8352-P(0)	10/30/14	KAW	NA
M8353-P(0)	10/30/14	KAW	NA
M8354-P(0)	10/30/14	KAW	NA
M8364-P(0)	10/30/14	KAW	NA
M8366-P(0)	10/30/14	KAW	NA
M8367-P(0)	10/30/14	KAW	NA
M8380-P(0)	10/30/14	KAW	NA

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
M8381-P(0)	10/30/14	KAW	NA
M8382-P(0)	10/30/14	KAW	NA
M8392-P(0)	10/30/14	KAW	NA
M8392MS-P(0)	10/30/14	KAW	NA
M8392MSD-P(0)	10/30/14	KAW	NA
M8393-P(0)	10/30/14	KAW	NA
M8394-P(0)	10/30/14	KAW	NA
M8406-P(0)	10/30/14	KAW	NA

Column Diameter: 13 mm **Procedure Comment:**

Elution Volume: 15 mL

Solvents

Name	Lot No
Hexane	0000078260

Reagents

Weight g	Name	Expires	Lot No	Procedure
1.00	Florisil	10/31/14	801139-1991484	Baked at 110 °C for more than 24 hours (SPE columns not baked)

Fractions

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CD584PB-P	0	--	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
CD585LCS-P	0	--	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8159-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8159-P	2	--	10/31/2014 10:58:00 AM	M8159-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8159-P-D	3	C	10/31/2014 10:58:00 AM	M8159-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8159-P-D	4	--	10/31/2014 10:59:00 AM	M8159-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8159-P-D	5	--	10/31/2014 10:59:00 AM	M8159-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8160-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8160-P	2	--	10/31/2014 10:58:00 AM	M8160-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8160-P-D	3	C	10/31/2014 10:58:00 AM	M8160-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8160-P-D	4	--	10/31/2014 10:59:00 AM	M8160-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8160-P-D	5	--	10/31/2014 10:59:00 AM	M8160-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8161-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8161-P	2	--	10/31/2014 10:58:00 AM	M8161-P	0	1000	950	1.053	1.053	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8161-P-D	3	C	10/31/2014 10:58:00 AM	M8161-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8161-P-D	4	--	10/31/2014 10:59:00 AM	M8161-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8161-P-D	5	--	10/31/2014 10:59:00 AM	M8161-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8161DUP-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8161DUP-P	2	--	10/31/2014 10:58:00 AM	M8161DUP-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8161DUP-P-D	3	C	10/31/2014 10:58:00 AM	M8161DUP-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8161DUP-P-D	4	--	10/31/2014 10:59:00 AM	M8161DUP-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8161DUP-P-D	5	--	10/31/2014 10:59:00 AM	M8161DUP-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8162-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8162-P	2	--	10/31/2014 10:58:00 AM	M8162-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8162-P-D	3	C	10/31/2014 10:58:00 AM	M8162-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8162-P-D	4	--	10/31/2014 10:59:00 AM	M8162-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8162-P-D	5	--	10/31/2014 10:59:00 AM	M8162-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8349-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8349-P	2	--	10/31/2014 10:58:00 AM	M8349-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8349-P-D	3	C	10/31/2014 10:58:00 AM	M8349-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8349-P-D	4	--	10/31/2014 10:59:00 AM	M8349-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8349-P-D	5	--	10/31/2014 10:59:00 AM	M8349-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8350-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8350-P	2	--	10/31/2014 10:58:00 AM	M8350-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8350-P-D	3	C	10/31/2014 10:58:00 AM	M8350-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8350-P-D	4	--	10/31/2014 10:59:00 AM	M8350-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8350-P-D	5	--	10/31/2014 10:59:00 AM	M8350-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8351-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8351-P	2	--	10/31/2014 10:58:00 AM	M8351-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8351-P-D	3	C	10/31/2014 10:58:00 AM	M8351-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8351-P-D	4	--	10/31/2014 10:59:00 AM	M8351-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8351-P-D	5	--	10/31/2014 10:59:00 AM	M8351-P-D	3	1000	50	20.000	400.000	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8352-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8352-P	2	--	10/31/2014 10:58:00 AM	M8352-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8352-P-D	3	C	10/31/2014 10:58:00 AM	M8352-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8352-P-D	4	--	10/31/2014 10:59:00 AM	M8352-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8352-P-D	5	--	10/31/2014 10:59:00 AM	M8352-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8353-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8353-P	2	--	10/31/2014 10:58:00 AM	M8353-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8353-P-D	3	C	10/31/2014 10:58:00 AM	M8353-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8353-P-D	4	--	10/31/2014 10:59:00 AM	M8353-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8353-P-D	5	--	10/31/2014 10:59:00 AM	M8353-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8354-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8354-P	2	--	10/31/2014 10:58:00 AM	M8354-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8354-P-D	3	C	10/31/2014 10:58:00 AM	M8354-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8354-P-D	4	--	10/31/2014 10:59:00 AM	M8354-P-D	3	1000	950	1.053	21.053	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8354-P-D	5	--	10/31/2014 10:59:00 AM	M8354-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8364-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8364-P	2	--	10/31/2014 10:58:00 AM	M8364-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8364-P-D	3	C	10/31/2014 10:58:00 AM	M8364-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8364-P-D	4	--	10/31/2014 10:59:00 AM	M8364-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8364-P-D	5	--	10/31/2014 10:59:00 AM	M8364-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8366-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8366-P	2	--	10/31/2014 10:58:00 AM	M8366-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8366-P-D	3	C	10/31/2014 10:58:00 AM	M8366-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8366-P-D	4	--	10/31/2014 10:59:00 AM	M8366-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8366-P-D	5	--	10/31/2014 10:59:00 AM	M8366-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8367-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8367-P	2	--	10/31/2014 10:58:00 AM	M8367-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8367-P-D	3	C	10/31/2014 10:58:00 AM	M8367-P	0	1000	50	20.000	20.000	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8367-P-D	4	--	10/31/2014 10:59:00 AM	M8367-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8367-P-D	5	--	10/31/2014 10:59:00 AM	M8367-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8380-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8380-P	2	--	10/31/2014 10:58:00 AM	M8380-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8380-P-D	3	C	10/31/2014 10:58:00 AM	M8380-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8380-P-D	4	--	10/31/2014 10:59:00 AM	M8380-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8380-P-D	5	--	10/31/2014 10:59:00 AM	M8380-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8381-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8381-P	2	--	10/31/2014 10:58:00 AM	M8381-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8381-P-D	3	C	10/31/2014 10:58:00 AM	M8381-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8381-P-D	4	--	10/31/2014 10:59:00 AM	M8381-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8381-P-D	5	--	10/31/2014 10:59:00 AM	M8381-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8382-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8382-P	2	--	10/31/2014 10:58:00 AM	M8382-P	0	1000	950	1.053	1.053	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8382-P-D	3	C	10/31/2014 10:58:00 AM	M8382-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8382-P-D	4	--	10/31/2014 10:59:00 AM	M8382-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8382-P-D	5	--	10/31/2014 10:59:00 AM	M8382-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8392-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8392-P	2	--	10/31/2014 10:58:00 AM	M8392-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8392-P-D	3	C	10/31/2014 10:58:00 AM	M8392-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8392-P-D	4	--	10/31/2014 10:59:00 AM	M8392-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8392-P-D	5	--	10/31/2014 10:59:00 AM	M8392-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8392MS-P	0	--	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8392MSD-P	0	--	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8393-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8393-P	2	--	10/31/2014 10:58:00 AM	M8393-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8393-P-D	3	C	10/31/2014 10:58:00 AM	M8393-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8393-P-D	4	--	10/31/2014 10:59:00 AM	M8393-P-D	3	1000	950	1.053	21.053	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8393-P-D	5	--	10/31/2014 10:59:00 AM	M8393-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8394-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8394-P	2	--	10/31/2014 10:58:00 AM	M8394-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8394-P-D	3	C	10/31/2014 10:58:00 AM	M8394-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8394-P-D	4	--	10/31/2014 10:59:00 AM	M8394-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8394-P-D	5	--	10/31/2014 10:59:00 AM	M8394-P-D	3	1000	50	20.000	400.000	10/31/14 KAW
M8406-P	0	C	10/28/2014 3:48:00 PM	NA		NA	NA	1.000	1.000	10/28/14 KAW
M8406-P	2	--	10/31/2014 10:58:00 AM	M8406-P	0	1000	950	1.053	1.053	10/31/14 KAW
M8406-P-D	3	C	10/31/2014 10:58:00 AM	M8406-P	0	1000	50	20.000	20.000	10/31/14 KAW
M8406-P-D	4	--	10/31/2014 10:59:00 AM	M8406-P-D	3	1000	950	1.053	21.053	10/31/14 KAW
M8406-P-D	5	--	10/31/2014 10:59:00 AM	M8406-P-D	3	1000	50	20.000	400.000	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
CD584PB-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
CD585LCS-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8159-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8159-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8159-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8160-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8160-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8160-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8161-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8161-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8161-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8161DUP-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8161DUP-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8161DUP-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8162-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8162-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8162-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8349-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8349-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8349-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8350-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8350-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8350-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8351-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8351-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8351-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8352-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8352-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8352-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8353-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8353-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8353-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8354-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8354-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8354-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8364-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8364-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8364-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8366-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8366-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8366-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8367-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8367-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8367-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8380-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8380-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8380-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8381-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8381-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8381-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8382-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8382-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8382-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8392-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8392-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8392-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8392MS-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8392MSD-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8393-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8393-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8393-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8394-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8394-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8394-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW
M8406-P(0)	900	100	IE11	100	1	1000	1.000	10/31/14 SG	KAW
M8406-P-D(3)	905	95	IE11	100	1	1000	20.000	10/31/14 SG	KAW
M8406-P-D(5)	905	95	IE11	100	1	1000	400.000	10/31/14 SG	KAW

Syringes/Pipettes Used:

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS SAMPLE SPECIFIC COMMENTS

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Comment:	Date/Initials:
CD584PB-P	NA	NA
CD585LCS-P	NA	NA
M8159-P	Sample went to very low volume approximately >1 mL pre florisil columns. Samples were put onto columns and continued through prep.	10/30/14 SG
M8160-P	NA	NA
M8161-P	Sample went to very low volume approximately >1 mL pre florisil columns. Samples were put onto columns and continued through prep.	10/30/14 KAW
M8161DUP-P	NA	NA
M8162-P	NA	NA
M8349-P	NA	NA
M8350-P	NA	NA
M8351-P	NA	NA
M8352-P	NA	NA
M8353-P	NA	NA
M8354-P	NA	NA
M8364-P	NA	NA
M8366-P	Sample went to very low volume approximately >1 mL pre florisil columns. Samples were put onto columns and continued through prep.	10/30/14 SG
M8367-P	NA	NA
M8380-P	NA	NA
M8381-P	NA	NA
M8382-P	NA	NA
M8392-P	NA	NA
M8392MS-P	NA	NA
M8392MSD-P	NA	NA
M8393-P	Sample went to very low volume approximately >1 mL pre florisil columns. Samples were put onto columns and continued through prep.	10/30/14 SG
M8394-P	NA	NA
M8406-P	NA	NA



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Purpose:	GC/ECD TRANSFER	Last Activity:	Prep->Inst
Relinquished On/By:	Oct 31 2014 3:51PM SG	Received On/By:	Oct 31 2014 3:51PM RR
Relinquished From:	Sample Preparation: NA	Received Location:	GC Laboratory: NA
Relinquish Comment:	NA	Received Comment:	NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CD584PB-P(0)	1000	1	Intact	NA
2	CD585LCS-P(0)	1000	1	Intact	NA
3	M8159-P(2)	1000	1.053	Intact	NA
4	M8159-P-D(4)	1000	21.053	Intact	NA
5	M8159-P-D(5)	1000	400	Intact	NA
6	M8160-P(2)	1000	1.053	Intact	NA
7	M8160-P-D(4)	NA	21.053	Intact	NA
8	M8160-P-D(5)	1000	400	Intact	NA
9	M8161-P(2)	1000	1.053	Intact	NA
10	M8161-P-D(4)	1000	21.053	Intact	NA
11	M8161-P-D(5)	1000	400	Intact	NA
12	M8161DUP-P(2)	1000	1.053	Intact	NA
13	M8161DUP-P-D(4)	1000	21.053	Intact	NA
14	M8161DUP-P-D(5)	1000	400	Intact	NA
15	M8162-P(2)	1000	1.053	Intact	NA
16	M8162-P-D(4)	1000	21.053	Intact	NA
17	M8162-P-D(5)	1000	400	Intact	NA
18	M8349-P(2)	1000	1.053	Intact	NA
19	M8349-P-D(4)	1000	21.053	Intact	NA
20	M8349-P-D(5)	1000	400	Intact	NA
21	M8350-P(2)	1000	1.053	Intact	NA
22	M8350-P-D(4)	1000	21.053	Intact	NA
23	M8350-P-D(5)	1000	400	Intact	NA
24	M8351-P(2)	1000	1.053	Intact	NA
25	M8351-P-D(4)	1000	21.053	Intact	NA
26	M8351-P-D(5)	1000	400	Intact	NA
27	M8352-P(2)	1000	1.053	Intact	NA
28	M8352-P-D(4)	1000	21.053	Intact	NA



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

29	M8352-P-D(5)	1000	400	Intact	NA
30	M8353-P(2)	1000	1.053	Intact	NA
31	M8353-P-D(4)	1000	21.053	Intact	NA
32	M8353-P-D(5)	1000	400	Intact	NA
33	M8354-P(2)	1000	1.053	Intact	NA
34	M8354-P-D(4)	1000	21.053	Intact	NA
35	M8354-P-D(5)	1000	400	Intact	NA
36	M8364-P(2)	1000	1.053	Intact	NA
37	M8364-P-D(4)	1000	21.053	Intact	NA
38	M8364-P-D(5)	1000	400	Intact	NA
39	M8366-P(2)	1000	1.053	Intact	NA
40	M8366-P-D(4)	1000	21.053	Intact	NA
41	M8366-P-D(5)	1000	400	Intact	NA
42	M8367-P(2)	1000	1.053	Intact	NA
43	M8367-P-D(4)	1000	21.053	Intact	NA
44	M8367-P-D(5)	1000	400	Intact	NA
45	M8380-P(2)	1000	1.053	Intact	NA
46	M8380-P-D(4)	1000	21.053	Intact	NA
47	M8380-P-D(5)	1000	400	Intact	NA
48	M8381-P(2)	1000	1.053	Intact	NA
49	M8381-P-D(4)	1000	21.053	Intact	NA
50	M8381-P-D(5)	1000	400	Intact	NA
51	M8382-P(2)	1000	1.053	Intact	NA
52	M8382-P-D(4)	1000	21.053	Intact	NA
53	M8382-P-D(5)	1000	400	Intact	NA
54	M8392-P(2)	1000	1.053	Intact	NA
55	M8392-P-D(4)	1000	21.053	Intact	NA
56	M8392-P-D(5)	1000	400	Intact	NA
57	M8392MS-P(0)	1000	1	Intact	NA
58	M8392MSD-P(0)	1000	1	Intact	NA
59	M8393-P(2)	1000	1.053	Intact	NA
60	M8393-P-D(4)	1000	21.053	Intact	NA
61	M8393-P-D(5)	1000	400	Intact	NA
62	M8394-P(2)	1000	1.053	Intact	NA
63	M8394-P-D(4)	1000	21.053	Intact	NA
64	M8394-P-D(5)	1000	400	Intact	NA
65	M8406-P(2)	1000	1.053	Intact	NA
66	M8406-P-D(4)	1000	21.053	Intact	NA

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

67	M8406-P-D(5)	1000	400	Intact	NA
Total Extracts:		67			

**BATTELLE - DUXBURY OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0495

USACE-NAE New Bedford Harbor LTM Study

SED

Entered By:

On:

Task Leader Approval:

On:

Supervisor Approval:

On:

PM Approval:

On:

INJECTION LOG

Directory I:\M\DATA\SM0417\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7203.D	HEXANE		10-20-2014 05:18 PM
2	2	M7204.D	HF94		10-20-2014 06:02 PM
3	3	M7205.D	IE03		10-20-2014 06:46 PM
4	4	M7206.D	IE04	Level not used.	10-20-2014 07:31 PM
5	5	M7207.D	IE05		10-20-2014 08:16 PM
6	6	M7208.D	IE06	RR 11/18/14	10-20-2014 09:00 PM
7	7	M7209.D	IE07		10-20-2014 09:45 PM
8	8	M7210.D	IE08		10-20-2014 10:29 PM
9	9	M7211.D	IE09	Level not used.	10-20-2014 11:14 PM
10	10	M7212.D	IE10		10-20-2014 11:58 PM
11	11	M7213.D	HY06 ICC		10-21-2014 12:43 AM
12	12	M7214.D	HF94		10-21-2014 01:28 AM
13	13	M7215.D	IE08 mid		10-21-2014 02:12 AM
14	14	M7216.D	CD598PB-P(3)	Procedural Blank 5-128 14	10-21-2014 02:57 AM
15	15	M7217.D	CD599LCS-P(5)	Laboratory Control Sample	10-21-2014 03:42 AM
16	16	M7218.D	CD600SRM-P(5)	Standard Reference Materi	10-21-2014 04:26 AM
17	17	M7219.D	M7754-P(5)	B537PreMnA 5-128 14-0498	10-21-2014 05:11 AM
18	18	M7220.D	M7755-P(5)	B537PreMnB 5-128 14-0498	10-21-2014 05:55 AM
19	19	M7221.D	M7756-P(5)	B537PreMnC 5-128 14-0498	10-21-2014 06:40 AM
20	20	M7222.D	M7756MS-P(5)	Matrix Spike of B537PreMn	10-21-2014 07:25 AM
21	21	M7223.D	M7756MSD-P(5)	Matrix Spike Duplicate of	10-21-2014 08:09 AM
22	22	M7224.D	M7757-P(5)	B537R01MnA 5-128 14-0498	10-21-2014 08:54 AM
23	23	M7225.D	M7758-P(5)	B537R01MnB 5-128 14-0498	10-21-2014 09:38 AM
24	24	M7226.D	HF94		10-21-2014 10:22 AM
25	25	M7227.D	IE08 mid		10-21-2014 11:07 AM
26	26	M7228.D	M7759-P(5)	B537R01MnC 5-128 14-0498	10-21-2014 11:52 AM
27	27	M7229.D	M7760-P(5)	B537R01MnD 5-128 14-0498	10-21-2014 12:36 PM
28	28	M7230.D	M7761-P(5)	B537R01MnE 5-128 14-0498	10-21-2014 01:21 PM
29	29	M7231.D	M7762-P(5)	B537S01MnA 5-128 14-0498	10-21-2014 02:05 PM
30	30	M7232.D	M7763-P(5)	B537S01MnB 5-128 14-0498	10-21-2014 02:50 PM
31	31	M7233.D	M7764-P(5)	B537S01MnC 5-128 14-0498	10-21-2014 03:35 PM
32	32	M7234.D	M7765-P(5)	B537S01MnD 5-128 14-0498	10-21-2014 04:19 PM
33	33	M7235.D	M7766-P(5)	B537S01MnE 5-128 14-0498	10-21-2014 05:04 PM
34	34	M7236.D	M7767-P(5)	B537S02MnA 5-128 14-0498	10-21-2014 05:48 PM
35	35	M7237.D	M7768-P(5)	B537S02MnB 5-128 14-0498	10-21-2014 06:33 PM
36	36	M7238.D	HF94		10-21-2014 07:17 PM
37	37	M7239.D	IE07 mid		10-21-2014 08:02 PM
38	38	M7240.D	M7768DUP-P(5)	Lab Duplicate of B537S02M	10-21-2014 08:46 PM
39	39	M7241.D	M7769-P(5)	B537S02MnC 5-128 14-0498	10-21-2014 09:31 PM
40	40	M7242.D	M7770-P(5)	B537S02MnD 5-128 14-0498	10-21-2014 10:16 PM
41	41	M7243.D	M7771-P(5)	B537S02MnE 5-128 14-0498	10-21-2014 11:00 PM
42	42	M7244.D	CD669PB-P(0)	Procedural Blank 5-128 14	10-21-2014 11:45 PM
43	43	M7245.D	CD670LCS-P(0)	Laboratory Control Sample	10-22-2014 12:29 AM
44	44	M7246.D	CD671LCS-D-P(0)	Laboratory Control Sample	10-22-2014 01:14 AM
45	45	M7247.D	M8926-P(0)	FLD20141014OSHCO-7-14-7E	10-22-2014 01:58 AM
46	46	M7248.D	M8928-P(0)	FSW20141014OSHCO-7-14-1 5	10-22-2014 02:43 AM
47	47	M7249.D	HF94		10-22-2014 03:28 AM
48	48	M7250.D	IE07 mid		10-22-2014 04:12 AM

INJECTION LOG

Directory I:\M\DATA\SM0421\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7441.D	HEXANE		11-4-2014 11:10 AM
2	2	M7442.D	IE07 mid		11-4-2014 11:54 AM
3	3	M7443.D	CD584PB-P(0)	Procedural Blank 5-128 14	11-4-2014 12:39 PM
4	4	M7444.D	CD585LCS-P(0)	Laboratory Control Sample	11-4-2014 01:23 PM
5	5	M7445.D	M8159-P(2)	NBH14-0029 5-128 14-0495	11-4-2014 02:08 PM
6	6	M7446.D	M8160-P(2)	NBH14-0033 5-128 14-0495	11-4-2014 02:52 PM
7	7	M7447.D	M8161-P(2)	NBH14-0037 5-128 14-0495	11-4-2014 03:37 PM
8	8	M7448.D	M8161DUP-P(2)	Lab Duplicate of NBH14-00	11-4-2014 04:21 PM
9	9	M7449.D	M8162-P(2)	NBH14-0041 5-128 14-0495	11-4-2014 05:06 PM
10	10	M7450.D	M8349-P(2)	NBH14-0181 5-128 14-0495	11-4-2014 05:50 PM
11	11	M7451.D	M8350-P(2)	NBH14-0185 5-128 14-0495	11-4-2014 06:35 PM
12	12	M7452.D	M8351-P(2)	NBH14-0189 5-128 14-0495	11-4-2014 07:19 PM
13	13	M7453.D	IE08 mid		11-4-2014 08:04 PM
14	14	M7454.D	M8352-P(2)	NBH14-0193 5-128 14-0495	11-4-2014 08:49 PM
15	15	M7455.D	M8353-P(2)	NBH14-0197 5-128 14-0495	11-4-2014 09:33 PM
16	16	M7456.D	M8354-P(2)	NBH14-0199 5-128 14-0495	11-4-2014 10:17 PM
17	17	M7457.D	M8364-P(2)	NBH14-0233 5-128 14-0495	11-4-2014 11:02 PM
18	18	M7458.D	M8366-P(2)	NBH14-0237 5-128 14-0495	11-4-2014 11:47 PM
19	19	M7459.D	M8367-P(2)	NBH14-0241 5-128 14-0495	11-5-2014 12:31 AM
20	20	M7460.D	M8380-P(2)	NBH14-0302 5-128 14-0495	11-5-2014 01:16 AM
21	21	M7461.D	M8381-P(2)	NBH14-0306 5-128 14-0495	11-5-2014 02:00 AM
22	22	M7462.D	M8382-P(2)	NBH14-0310 5-128 14-0495	11-5-2014 02:44 AM
23	23	M7463.D	M8392-P(2)	NBH14-0121 5-128 14-0495	11-5-2014 03:29 AM
24	24	M7464.D	IE07 mid		11-5-2014 04:13 AM
25	25	M7465.D	M8392MS-P(0)	Matrix Spike of NBH14-012	11-5-2014 04:58 AM
26	26	M7466.D	M8392MSD-P(0)	Matrix Spike Duplicate of	11-5-2014 05:42 AM
27	27	M7467.D	M8393-P(2)	NBH14-0125 5-128 14-0495	11-5-2014 06:27 AM
28	28	M7468.D	M8394-P(2)	NBH14-0129 5-128 14-0495	11-5-2014 07:11 AM
29	29	M7469.D	M8406-P(2)	NBH14-0177 5-128 14-0495	11-5-2014 07:56 AM
30	30	M7470.D	IE08 mid		11-5-2014 08:40 AM
31	1	M7471.D	HEXANE		11-5-2014 10:48 AM
32	2	M7472.D	HF94		11-5-2014 11:33 AM
33	3	M7473.D	IE07 mid		11-5-2014 12:17 PM
34	4	M7474.D	CD556PB-P(3)	Procedural Blank 14-0481	11-5-2014 01:02 PM
35	5	M7475.D	CD709PB-P(3)	Procedural Blank 5-128 14	11-5-2014 01:46 PM
36	6	M7476.D	CD557LCS-P(3)	Laboratory Control Sample	11-5-2014 02:31 PM
37	7	M7477.D	CD721SRM-P(3)		11-5-2014 03:15 PM
38	8	M7478.D	M8497MS-P1(6)	Matrix Spike of FLD201410	11-5-2014 04:00 PM
39	9	M7479.D	M8497MSD-P1(6)	Matrix Spike Duplicate of	11-5-2014 04:44 PM
40	10	M7480.D	M8934-P(6)	FLD20141014OSHCO-7-14-7S	11-5-2014 05:29 PM
41	11	M7481.D	HF94		11-5-2014 06:14 PM
42	12	M7482.D	IE08 mid		11-5-2014 06:58 PM

INJECTION LOG

Directory I:\M\DATA\SM0425\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7643.D	HEXANE		11-20-2014 10:28 AM
2	2	M7644.D	IE07 mid		11-20-2014 11:12 AM
3	3	M7645.D	M8159-P-D(4)	NBH14-0029 5-128 14-0495	11-20-2014 11:57 AM
4	4	M7646.D	M8160-P-D(4) (1)	NBH14-0033 5-128 14-0495	11-20-2014 12:41 PM
5	5	M7647.D	M8161-P-D(4)	NBH14-0037 5-128 14-0495	11-20-2014 01:26 PM
6	6	M7648.D	M8161DUP-P-D(4)	Lab Duplicate of NBH14-00	11-20-2014 02:10 PM
7	7	M7649.D	M8162-P-D(4) (1)		11-20-2014 02:55 PM
8	8	M7650.D	M8393-P-D(4)	NBH14-0125 5-128 14-0495	11-20-2014 03:39 PM
9	9	M7651.D	M8394-P-D(4)	NBH14-0129 5-128 14-0495	11-20-2014 04:24 PM
10	10	M7652.D	M8406-P-D(4)	NBH14-0177 5-128 14-0495	11-20-2014 05:08 PM
11	11	M7653.D	M8352-P-D(4)	NBH14-0193 5-128 14-0495	11-20-2014 05:52 PM
12	12	M7654.D	M8353-P-D(4)	NBH14-0197 5-128 14-0495	11-20-2014 06:37 PM
13	13	M7655.D	IE08 mid		11-20-2014 07:22 PM
14	14	M7656.D	M8354-P-D(4)	NBH14-0199 5-128 14-0495	11-20-2014 08:06 PM
15	15	M7657.D	M8364-P-D(4)	NBH14-0233 5-128 14-0495	11-20-2014 08:51 PM
16	16	M7658.D	M8366-P-D(4)	NBH14-0237 5-128 14-0495	11-20-2014 09:35 PM
17	17	M7659.D	M8367-P-D(4)	NBH14-0241 5-128 14-0495	11-20-2014 10:20 PM
18	18	M7660.D	M8380-P-D(4)	NBH14-0302 5-128 14-0495	11-20-2014 11:05 PM
19	19	M7661.D	M8381-P-D(4)	NBH14-0306 5-128 14-0495	11-20-2014 11:49 PM
20	20	M7662.D	M8382-P-D(4)	NBH14-0310 5-128 14-0495	11-21-2014 12:34 AM
21	21	M7663.D	M8392-P-D(4) (1)	NBH14-0121 5-128 14-0495	11-21-2014 01:18 AM
22	22	M7664.D	M8393-P-D(5)	NBH14-0125 5-128 14-0495	11-21-2014 02:03 AM
23	23	M7665.D	M8394-P-D(5)		11-21-2014 02:47 AM
24	24	M7666.D	IE07 mid		11-21-2014 03:32 AM
25	25	M7667.D	M8406-P-D(5)		11-21-2014 04:16 AM
26	26	M7668.D	M8159-P-D(5)		11-21-2014 05:01 AM
27	27	M7669.D	M8160-P-D(5)		11-21-2014 05:46 AM
28	28	M7670.D	M8161-P-D(5)		11-21-2014 06:30 AM
29	29	M7671.D	M8161DUP-P-D(5)		11-21-2014 07:15 AM

(1) Dilutions not needed.

RR 11/21/14

Calibration Response Factor Report

Batch: 14-0495 **Project Test Code:** Master 128(S)
Data Set: DP-14-0677 **SOP_NO:** 5-128-13 RFs validated CRD 12/9/2014
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Type:	Column:	MQO:	1 IE03 M7205.D	2 IE05 M7207.D	3 IE06 M7208.D	4 IE07 M7209.D	5 IE08 M7210.D	6 IE10 M7212.D	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:	
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	Cl2(8)	1	Y	1.02677	0.82499	0.74685	0.63118	0.55904	0.41512	-	-	6	Q	-0.05406	0.58100	0.02367	0.99968		
3	Cl3(18)	1	Y	1.31210	1.10482	0.96661	0.78724	0.69070	0.50395	-	-	6	Q	-0.06844	0.71262	0.03558	0.99947		
4	Cl3(34)	s	1	Y	2.47273	1.36117	1.18217	1.03139	0.92191	0.71999	-	-	6	Q	-0.06938	0.92761	0.04587	0.99994	
5	Cl3(28)	1	Y	1.88563	1.62148	1.53903	1.39969	1.26450	1.01381	-	-	6	Q	-0.09842	1.31978	0.03237	0.99986		
6	Cl4(52)	1	Y	2.67460	1.50893	1.27188	1.06050	0.93014	0.70933	-	-	6	Q	-0.07364	0.92696	0.05816	0.99983		
7	Cl4(44)	1	Y	1.96878	1.69047	1.60648	1.42175	1.25645	1.00372	-	-	6	Q	-0.09818	1.30598	0.04163	0.99973		
8	Cl4(66)	1	Y	2.14003	1.91334	1.75148	1.60565	1.43266	1.15511	-	-	6	Q	-0.10876	1.49082	0.04098	0.99982		
9	Cl5(101)	1	Y	1.87327	1.59373	1.70864	1.61385	1.42978	1.22422	-	-	6	Q	-0.08750	1.49635	0.02623	0.99975		
10	Cl6(161)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	Cl6(152)	s	1	Y	1.02184	0.73169	0.67623	0.59438	0.54889	0.47996	-	-	6	Q	-0.02339	0.54921	0.01882	0.99992	
12	Cl5(118)	1	Y	1.02402	0.91463	0.85020	0.75415	0.68354	0.58350	-	-	6	Q	-0.03737	0.69686	0.02122	0.99982		
13	Cl6(153)	1	Y	0.88266	0.81935	0.60192	0.77537	0.66030	0.59647	-	-	6	Q	-0.02991	0.69018	0.00733	0.99932		
14	Cl5(105)	1	Y	1.20312	1.04021	0.99965	0.96015	0.82296	0.65909	-	-	6	Q	-0.06789	0.87004	0.02177	0.99963		
15	Cl6(138)	1	Y	1.22541	1.06675	1.00587	0.91669	0.84817	0.76297	-	-	6	Q	-0.03117	0.85646	0.02109	0.99991		
16	Cl7(187)	1	Y	1.07415	0.94434	0.88498	0.79082	0.74346	0.66512	-	-	6	Q	-0.02786	0.74881	0.01846	0.99992		
17	Cl6(128)	1	Y	1.16100	0.91667	0.89359	0.85607	0.84318	0.73247	-	-	6	Q	-0.04270	0.86786	0.00587	0.99999		
18	Cl7(180)	1	Y	1.23170	1.08198	0.99753	0.93689	0.88497	0.82624	-	-	6	Q	-0.02031	0.88592	0.01772	0.99996		
19	Cl7(170)	1	Y	1.33635	1.19973	1.11853	1.05917	1.00487	0.94111	-	-	6	Q	-0.02267	1.00845	0.01743	0.99997		
20	Cl8(195)	1	Y	1.24821	1.10061	1.05076	0.99234	0.94476	0.89153	-	-	6	Q	-0.01887	0.94735	0.01528	0.99997		
21	Cl9(206)	1	Y	1.18038	1.03661	0.99467	0.96457	0.91081	0.85789	-	-	6	Q	-0.02022	0.91869	0.01268	0.99997		
22	Cl10(209)	1	Y	0.99002	0.86426	0.82007	0.78889	0.73849	0.67758	-	-	6	Q	-0.02343	0.74907	0.01198	0.99996		
23	Signal	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	Cl2(8)	2	Y	0.94637	0.83650	0.76620	0.67202	0.62199	0.48595	-	-	6	Q	-0.05185	0.64681	0.01712	0.99988		
26	Cl3(18)	2	Y	1.39241	1.13741	1.00550	0.76551	0.70491	0.54182	-	-	6	Q	-0.05533	0.70768	0.03799	0.99943		
27	Cl3(34)	s	2	Y	2.23518	1.39531	1.20146	1.04748	0.98379	0.79730	-	-	6	Q	-0.06315	0.98749	0.03800	0.99996	
28	Cl3(28)	2	Y	2.05612	1.73008	1.59254	1.42520	1.36560	1.12979	-	-	6	Q	-0.08759	1.40224	0.02866	0.99996		
29	Cl4(52)	2	Y	1.32543	1.01634	1.04226	0.82635	0.80598	0.62728	-	-	6	Q	-0.06549	0.83027	0.02172	0.99971		
30	Cl4(44)	2	Y	2.26696	1.68554	1.62828	1.44775	1.40139	1.13801	-	-	6	Q	-0.09853	1.44647	0.02603	0.99996		

Calibration Response Factor Report

Batch: 14-0495 **Project Test Code:** Master 128(S)
Data Set: DP-14-0677 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Column Type:	Column:	MQO:	1 IE03	2 IE05	3 IE06	4 IE07	5 IE08	6 IE10	7	8	Levels:	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
					M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D									
31	Cl4(66)		2	Y	2.28150	1.94181	1.76289	1.65364	1.54066	1.31516	-	-	6	Q	-0.08582	1.58007	0.03256	0.99996	
32	Cl5(101)		2	Y	1.56754	1.17777	1.01633	1.01029	0.86410	0.96534	-	-	6	Q	0.04538	0.80794	0.03732	0.99968	
33	Cl6(161)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	Cl6(152)	s	2	Y	0.69735	0.69234	0.57622	0.54795	0.47409	0.53607	-	-	6	Q	0.02791	0.43955	0.02156	0.99966	
35	Cl5(118)		2	Y	1.37021	0.63622	0.73177	0.70795	0.59017	0.57149	-	-	6	Q	-0.00725	0.58778	0.02195	0.99943	
36	Cl6(153)		2	Y	1.07545	0.86632	0.79677	0.69128	0.63279	0.63321	-	-	6	Q	0.00578	0.60663	0.02539	0.99983	
37	Cl5(105)		2	Y	1.20126	1.01455	0.97857	0.92200	0.88341	0.94009	-	-	6	Q	0.02686	0.84840	0.01736	0.99996	
38	Cl6(138)		2	Y	0.67940	0.66822	0.62305	0.61544	0.61172	0.68345	-	-	6	Q	0.03117	0.58132	0.00625	0.99999	
39	Cl7(187)		2	Y	0.98245	0.80842	0.76633	0.69224	0.65688	0.68482	-	-	6	Q	0.01569	0.62875	0.01795	0.99993	
40	Cl6(128)		2	Y	1.29556	1.08544	1.04052	0.96581	0.92997	0.98492	-	-	6	Q	0.02722	0.89128	0.01958	0.99996	
41	Cl7(180)		2	Y	1.15986	0.95311	0.92022	0.85738	0.83699	0.89707	-	-	6	Q	0.02897	0.79906	0.01566	0.99998	
42	Cl7(170)		2	Y	1.17715	1.00944	0.98379	0.93732	0.91404	0.98260	-	-	6	Q	0.03138	0.87743	0.01381	0.99998	
43	Cl8(195)		2	Y	1.05313	0.90773	0.89676	0.85979	0.84072	0.91395	-	-	6	Q	0.03255	0.80577	0.01137	0.99998	
44	Cl9(206)		2	Y	0.94156	0.80488	0.80171	0.77400	0.75899	0.82033	-	-	6	Q	0.02717	0.73041	0.00888	0.99999	
45	Cl10(209)		2	Y	0.76301	0.64557	0.63678	0.60540	0.58689	0.62005	-	-	6	Q	0.01548	0.56751	0.00888	0.99998	

Calibration Response Factor Report

Batch: 14-0495 **Project Test Code:** Master 128(S)
Data Set: DP-14-0677 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Type:	Column:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
			MQO:	IE03	IE05	IE06	IE07	IE08	IE10	-	-						
				M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D	-	-						

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax^2 + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax^2 + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Calibration Response Factor Report

Batch: 14-0495 **Project Test Code:** Master 128(S) RFs validated CRD 12/9/2014
Data Set: DP-14-0677 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417F.M **Responses Via** Initial Calibration **Last Updated** 12/5/2014 3:22:00 PM **Title:** NBH 101 only to compliment B method
Instrument: Inst_M **Operator:** RR **Path:** I:\M\DATA\MM0417F.M

No:	Analyte:	Type:	Column:	MQO:	1 IE03	2 IE05	3 IE06	4 IE07	5 IE08	6 IE10	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl5(101)	Y	1	Y	2.10045	1.55920	1.68988	1.70104	1.46973	1.35619	-	-	6 Q	-0.05296	1.51726	0.02697	0.99964	
3	Signal		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Cl5(101)	Y	2	Y	1.67256	2.33575	1.99479	1.98711	2.06595	1.40514	-	-	6 Q	-0.26866	2.27420	-0.02348	0.99966	

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax^2 + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax^2 + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Calibration Response Factor Report

Batch: 14-0495 **Project Test Code:** Master 128(S)
Data Set: DP-14-0677 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

Method: I:\M\DATA\MM0417C.M
Title: NBH
Last Update: Fri Nov 14 9:30 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Oct 28 9:02 2014	Oct 28 8:27 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 11:58 PM

Method: I:\M\DATA\MM0417F.M
Title: NBH 101 only to compliment B method
Last Update: Fri Dec 05 15:22 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Dec 05 15:22 2014	Dec 05 15:15 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 11:58 PM

ICC Summary Report

Batch: 14-0495 **Data Set:** DP-14-0677
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project No:** 100053747
Batch: 14-0495 **Matrix:** SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl2(8)		1	Y	0.04000	0.04325	8.3
3	Cl3(18)		1	Y	0.04000	0.04152	3.8
4	Cl3(34)	s	1	Y	0.04000	0.04104	2.5
5	Cl3(28)		1	Y	0.04000	0.04097	2.5
6	Cl4(52)		1	Y	0.04000	0.04111	2.8
7	Cl4(44)		1	Y	0.04000	0.04166	4.3
8	Cl4(66)		1	Y	0.04000	0.04028	0.8
9	Cl5(101)		1	Y	0.04000	0.03706	7.3
10	Cl6(161)	I	1	-			
11	Cl6(152)	s	1	Y	0.04020	0.04329	7.8
12	Cl5(118)		1	Y	0.04000	0.04151	3.8
13	Cl6(153)		1	Y	0.04000	0.03933	1.8
14	Cl5(105)		1	Y	0.04000	0.03777	5.5
15	Cl6(138)		1	Y	0.04000	0.04232	5.8
16	Cl7(187)		1	Y	0.04000	0.04280	7.0
17	Cl6(128)		1	Y	0.04000	0.03934	1.8
18	Cl7(180)		1	Y	0.04000	0.04137	3.5
19	Cl7(170)		1	Y	0.04000	0.04068	1.8
20	Cl8(195)		1	Y	0.04000	0.03988	0.3
21	Cl9(206)		1	Y	0.04000	0.03884	3.0
22	Cl10(209)		1	Y	0.04000	0.03908	2.3
24	Cl5(96)	I	2	-			
25	Cl2(8)		2	Y	0.04000	0.04248	6.3
26	Cl3(18)		2	Y	0.04000	0.03989	0.3
27	Cl3(34)	s	2	Y	0.04000	0.04170	4.3
28	Cl3(28)		2	Y	0.04000	0.04093	2.3
29	Cl4(52)		2	Y	0.04000	0.04057	1.5
30	Cl4(44)		2	Y	0.04000	0.04125	3.3
31	Cl4(66)		2	Y	0.04000	0.04095	2.5
32	Cl5(101)		2	Y	0.04000	0.03828	4.3
33	Cl6(161)	I	2	-			
34	Cl6(152)	s	2	Y	0.04020	0.04128	2.8
35	Cl5(118)		2	Y	0.04000	0.03951	1.3
36	Cl6(153)		2	Y	0.04000	0.04346	8.8
37	Cl5(105)		2	Y	0.04000	0.04078	2.0
38	Cl6(138)		2	Y	0.04000	0.04108	2.8
39	Cl7(187)		2	Y	0.04000	0.04269	6.8
40	Cl6(128)		2	Y	0.04000	0.04136	3.5
41	Cl7(180)		2	Y	0.04000	0.04073	1.8
42	Cl7(170)		2	Y	0.04000	0.04050	1.3
43	Cl8(195)		2	Y	0.04000	0.03956	1.0
44	Cl9(206)		2	Y	0.04000	0.03878	3.0

ICC Summary Report

Batch: 14-0495 Data Set: DP-14-0677
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0495 Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
45	Cl10(209)		2	Y	0.04000	0.03893	2.8

MQO: Only compounds flagged with "Y" will be counted towards
MQO exceedences.

Mean PD: 3.49
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

ICC Summary Report

Batch: 14-0495 Data Set: DP-14-0677
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0495 Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.04000	0.03858	3.5
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.04000	0.03850	3.8

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: 3.65
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0495 **Data Set:** DP-14-0677
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7442.D		M7464.D		M7644.D		
						MID	% Diff	MID	% Diff	MID	% Diff	
						11/04/2014 11:54		11/05/2014 04:14		11/20/2014 11:12		
1	Cl5(96)	I	1	-								
2	Cl2(8)		1	Y	0.04008	0.04042	0.8	0.03977	-0.8	0.03738	-6.7	
3	Cl3(18)		1	Y	0.04016	0.04076	1.5	0.03938	-1.9	0.03726	-7.2	
4	Cl3(34)	s	1	Y	0.04000	0.03986	-0.4	0.04024	0.6	0.03811	-4.7	
5	Cl3(28)		1	Y	0.04016	0.03960	-1.4	0.04191	4.4	0.03818	-4.9	
6	Cl4(52)		1	Y	0.04004	0.03919	-2.1	0.04005	0.0	0.03713	-7.3	
7	Cl4(44)		1	Y	0.04016	0.04054	0.9	0.04117	2.5	0.03953	-1.6	
8	Cl4(66)		1	Y	0.04008	0.04329	8.0	0.04061	1.3	0.03764	-6.1	
9	Cl5(101)		1	Y	0.04008	0.03690	-7.9	0.03917	-2.3	0.03833	-4.4	
10	Cl6(161)	I	1	-								
11	Cl6(152)	s	1	Y	0.04016	0.03967	-1.2	0.04158	3.5	0.04135	3.0	
12	Cl5(118)		1	Y	0.04016	0.03966	-1.2	0.03904	-2.8	0.03539	-11.9	
13	Cl6(153)		1	Y	0.04016	0.04075	1.5	0.03696	-8.0	0.04065	1.2	
14	Cl5(105)		1	Y	0.04012	0.04099	2.2	0.04025	0.3	0.03930	-2.0	
15	Cl6(138)		1	Y	0.04016	0.03944	-1.8	0.03960	-1.4	0.03966	-1.2	
16	Cl7(187)		1	Y	0.04016	0.04106	2.2	0.03988	-0.7	0.04074	1.4	
17	Cl6(128)		1	Y	0.04016	0.04347	8.2	0.04077	1.5	0.03725	-7.2	
18	Cl7(180)		1	Y	0.04016	0.04316	7.5	0.03914	-2.5	0.04081	1.6	
19	Cl7(170)		1	Y	0.04016	0.04247	5.8	0.03903	-2.8	0.04047	0.8	
20	Cl8(195)		1	Y	0.04016	0.04463	11.1	0.03932	-2.1	0.04202	4.6	
21	Cl9(206)		1	Y	0.04008	0.04526	12.9	0.03878	-3.2	0.04222	5.3	
22	Cl10(209)		1	Y	0.04016	0.04588	14.2	0.03852	-4.1	0.04405	9.7	
24	Cl5(96)	I	2	-								
25	Cl2(8)		2	Y	0.04008	0.03965	-1.1	0.03823	-4.6	0.03632	-9.4	
26	Cl3(18)		2	Y	0.04016	0.04106	2.2	0.04059	1.1	0.03648	-9.2	
27	Cl3(34)	s	2	Y	0.04000	0.03997	-0.1	0.03916	-2.1	0.03760	-6.0	
28	Cl3(28)		2	Y	0.04016	0.03794	-5.5	0.03768	-6.2	0.03503	-12.8	
29	Cl4(52)		2	Y	0.04004	0.03986	-0.4	0.03996	-0.2	0.03689	-7.9	
30	Cl4(44)		2	Y	0.04016	0.04200	4.6	0.04180	4.1	0.03934	-2.0	
31	Cl4(66)		2	Y	0.04008	0.04054	1.1	0.04101	2.3	0.03822	-4.6	
32	Cl5(101)		2	Y	0.04008	0.03993	-0.4	0.04047	1.0	0.03650	-8.9	
33	Cl6(161)	I	2	-								
34	Cl6(152)	s	2	Y	0.04016	0.04206	4.7	0.03878	-3.4	0.03998	-0.4	
35	Cl5(118)		2	Y	0.04016	0.03973	-1.1	0.04017	0.0	0.03724	-7.3	
36	Cl6(153)		2	Y	0.04016	0.03926	-2.2	0.03847	-4.2	0.03986	-0.7	
37	Cl5(105)		2	Y	0.04012	0.03892	-3.0	0.03941	-1.8	0.03809	-5.1	
38	Cl6(138)		2	Y	0.04016	0.04095	2.0	0.04276	6.5	0.04333	7.9	
39	Cl7(187)		2	Y	0.04016	0.04198	4.5	0.04072	1.4	0.04284	6.7	
40	Cl6(128)		2	Y	0.04016	0.04175	4.0	0.04085	1.7	0.04152	3.4	
41	Cl7(180)		2	Y	0.04016	0.04329	7.8	0.04114	2.4	0.04267	6.2	
42	Cl7(170)		2	Y	0.04016	0.04341	8.1	0.04135	3.0	0.04252	5.9	
43	Cl8(195)		2	Y	0.04016	0.04578	14.0	0.04198	4.5	0.04444	10.7	
44	Cl9(206)		2	Y	0.04008	0.05133	28.1	N	0.04289	7.0	0.04522	12.8

CCV Summary Report

Batch: 14-0495 Data Set: DP-14-0677
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED

Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7442.D		M7464.D		M7644.D		
						MID	% Diff	MID	% Diff	MID	% Diff	
45	Cl10(209)		2	Y	0.04016	0.05029	25.2	N	0.04330	7.8	0.04653	15.9
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	5.3		2.8		5.9	
						Time Check:	< 24		< 24		< 24	

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0495 **Data Set:** DP-14-0677
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

M7666.D

IE07 mid

11/21/2014 03:32

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl2(8)		1	Y	0.04008	0.03713	-7.4
3	Cl3(18)		1	Y	0.04016	0.03767	-6.2
4	Cl3(34)	s	1	Y	0.04000	0.03773	-5.7
5	Cl3(28)		1	Y	0.04016	0.03938	-1.9
6	Cl4(52)		1	Y	0.04004	0.03770	-5.8
7	Cl4(44)		1	Y	0.04016	0.03939	-1.9
8	Cl4(66)		1	Y	0.04008	0.03757	-6.3
9	Cl5(101)		1	Y	0.04008	0.03864	-3.6
10	Cl6(161)	I	1	-			
11	Cl6(152)	s	1	Y	0.04016	0.04144	3.2
12	Cl5(118)		1	Y	0.04016	0.03660	-8.9
13	Cl6(153)		1	Y	0.04016	0.03661	-8.8
14	Cl5(105)		1	Y	0.04012	0.03937	-1.9
15	Cl6(138)		1	Y	0.04016	0.03885	-3.3
16	Cl7(187)		1	Y	0.04016	0.04045	0.7
17	Cl6(128)		1	Y	0.04016	0.03980	-0.9
18	Cl7(180)		1	Y	0.04016	0.03934	-2.0
19	Cl7(170)		1	Y	0.04016	0.03916	-2.5
20	Cl8(195)		1	Y	0.04016	0.04025	0.2
21	Cl9(206)		1	Y	0.04008	0.04050	1.0
22	Cl10(209)		1	Y	0.04016	0.04152	3.4
24	Cl5(96)	I	2	-			
25	Cl2(8)		2	Y	0.04008	0.03713	-7.4
26	Cl3(18)		2	Y	0.04016	0.03658	-8.9
27	Cl3(34)	s	2	Y	0.04000	0.03823	-4.4
28	Cl3(28)		2	Y	0.04016	0.03659	-8.9
29	Cl4(52)		2	Y	0.04004	0.03913	-2.3
30	Cl4(44)		2	Y	0.04016	0.03667	-8.7
31	Cl4(66)		2	Y	0.04008	0.03891	-2.9
32	Cl5(101)		2	Y	0.04008	0.03960	-1.2
33	Cl6(161)	I	2	-			
34	Cl6(152)	s	2	Y	0.04016	0.04244	5.7
35	Cl5(118)		2	Y	0.04016	0.03925	-2.3
36	Cl6(153)		2	Y	0.04016	0.03739	-6.9
37	Cl5(105)		2	Y	0.04012	0.03750	-6.5
38	Cl6(138)		2	Y	0.04016	0.04219	5.1
39	Cl7(187)		2	Y	0.04016	0.04093	1.9
40	Cl6(128)		2	Y	0.04016	0.04074	1.4
41	Cl7(180)		2	Y	0.04016	0.04170	3.8
42	Cl7(170)		2	Y	0.04016	0.04183	4.2
43	Cl8(195)		2	Y	0.04016	0.04342	8.1
44	Cl9(206)		2	Y	0.04008	0.04574	14.1

CCV Summary Report

Batch: 14-0495 Data Set: DP-14-0677
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

M7666.D

IE07 mid

11/21/2014 03:32

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
45	Cl10(209)		2	Y	0.04016	0.04726	17.7

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: 5.0
Time Check: < 24

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0495 **Data Set:** DP-14-0677
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7453.D		M7470.D		M7655.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						IE08 mid 11/04/2014 20:05		IE08 mid 11/05/2014 08:41		IE08 mid 11/20/2014 19:22	
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.08016	0.07502	-6.4	0.07554	-5.8	0.07272	-9.3
3	Cl3(18)		1	Y	0.08032	0.07379	-8.1	0.07472	-7.0	0.07322	-8.8
4	Cl3(34)	s	1	Y	0.08000	0.07685	-3.9	0.07817	-2.3	0.07670	-4.1
5	Cl3(28)		1	Y	0.08032	0.07822	-2.6	0.08002	-0.4	0.07452	-7.2
6	Cl4(52)		1	Y	0.08008	0.07653	-4.4	0.07836	-2.1	0.07368	-8.0
7	Cl4(44)		1	Y	0.08032	0.07755	-3.4	0.07866	-2.1	0.07615	-5.2
8	Cl4(66)		1	Y	0.08016	0.07666	-4.4	0.08051	0.4	0.07225	-9.9
9	Cl5(101)		1	Y	0.08016	0.07483	-6.6	0.08503	6.1	0.08801	9.8
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.08032	0.08177	1.8	0.08026	-0.1	0.08221	2.4
12	Cl5(118)		1	Y	0.08032	0.07349	-8.5	0.07643	-4.8	0.06854	-14.7
13	Cl6(153)		1	Y	0.08032	0.07897	-1.7	0.07973	-0.7	0.07669	-4.5
14	Cl5(105)		1	Y	0.08024	0.07686	-4.2	0.07470	-6.9	0.07472	-6.9
15	Cl6(138)		1	Y	0.08032	0.07711	-4.0	0.07832	-2.5	0.07602	-5.4
16	Cl7(187)		1	Y	0.08032	0.07821	-2.6	0.07801	-2.9	0.07963	-0.9
17	Cl6(128)		1	Y	0.08032	0.08151	1.5	0.07331	-8.7	0.07729	-3.8
18	Cl7(180)		1	Y	0.08032	0.07699	-4.1	0.07896	-1.7	0.07735	-3.7
19	Cl7(170)		1	Y	0.08032	0.07712	-4.0	0.07910	-1.5	0.07634	-5.0
20	Cl8(195)		1	Y	0.08032	0.07783	-3.1	0.07988	-0.5	0.07843	-2.4
21	Cl9(206)		1	Y	0.08016	0.07637	-4.7	0.07832	-2.3	0.07763	-3.2
22	Cl10(209)		1	Y	0.08032	0.07582	-5.6	0.07713	-4.0	0.07922	-1.4
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.08016	0.07089	-11.6	0.07221	-9.9	0.07181	-10.4
26	Cl3(18)		2	Y	0.08032	0.07252	-9.7	0.07310	-9.0	0.07558	-5.9
27	Cl3(34)	s	2	Y	0.08000	0.07543	-5.7	0.07413	-7.3	0.07611	-4.9
28	Cl3(28)		2	Y	0.08032	0.07172	-10.7	0.07377	-8.2	0.07181	-10.6
29	Cl4(52)		2	Y	0.08008	0.07242	-9.6	0.07683	-4.1	0.07558	-5.6
30	Cl4(44)		2	Y	0.08032	0.08022	-0.1	0.08362	4.1	0.07916	-1.4
31	Cl4(66)		2	Y	0.08016	0.07927	-1.1	0.08000	-0.2	0.07559	-5.7
32	Cl5(101)		2	Y	0.08016	0.07851	-2.1	0.07400	-7.7	0.08080	0.8
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.08032	0.08176	1.8	0.08155	1.5	0.08322	3.6
35	Cl5(118)		2	Y	0.08032	0.08087	0.7	0.07313	-9.0	0.08139	1.3
36	Cl6(153)		2	Y	0.08032	0.07481	-6.9	0.07404	-7.8	0.07347	-8.5
37	Cl5(105)		2	Y	0.08024	0.07844	-2.2	0.07531	-6.1	0.07388	-7.9
38	Cl6(138)		2	Y	0.08032	0.08372	4.2	0.08607	7.2	0.08358	4.1
39	Cl7(187)		2	Y	0.08032	0.07995	-0.5	0.07726	-3.8	0.08120	1.1
40	Cl6(128)		2	Y	0.08032	0.08087	0.7	0.07840	-2.4	0.07867	-2.1
41	Cl7(180)		2	Y	0.08032	0.08198	2.1	0.08041	0.1	0.08116	1.0
42	Cl7(170)		2	Y	0.08032	0.08166	1.7	0.08052	0.2	0.08049	0.2
43	Cl8(195)		2	Y	0.08032	0.08216	2.3	0.08331	3.7	0.08321	3.6
44	Cl9(206)		2	Y	0.08016	0.08283	3.3	0.08560	6.8	0.08576	7.0

CCV Summary Report

Batch: 14-0495 Data Set: DP-14-0677
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7453.D		M7470.D		M7655.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.08032	0.08304	3.4	0.08618	7.3	0.08791	9.4
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.2	4.2	5.3		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0495 **Data Set:** DP-14-0677
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417F.M **Last Updated:** 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7442.D		M7464.D		M7644.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						11/04/2014 11:54		11/05/2014 04:14		11/20/2014 11:12	
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.04008	0.03760	-6.2	0.04093	2.1	0.03783	-5.6
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.04008	0.04344	8.4	0.03623	-9.6	0.03839	-4.2
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:		7.3		5.9	
						Time Check:		< 24		< 24	

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

CCV Summary Report

Batch: 14-0495 Data Set: DP-14-0677
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7666.D

IE07 mid

11/21/2014 03:32

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.04008	0.03860	-3.7
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.04008	0.04171	4.1

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: **3.9**
Time Check: **< 24**

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

CCV Summary Report

Batch: 14-0495 Data Set: DP-14-0677
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7453.D		M7470.D		M7655.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						11/04/2014 20:05		11/05/2014 08:41		11/20/2014 19:22	
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.08016	0.07456	-7.0	0.08081	0.8	0.07821	-2.4
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.08016	0.07774	-3.0	0.08189	2.2	0.07934	-1.0
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	5.0	1.5	1.7		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 RIS/SIS Mult : NA
 Total Cpnds : 45

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound		IE03	IE05	IE06	IE07	IE08	IE10
1 I	Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2	Cl2(8)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3	Cl3(18)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
4 s	Cl3(34)	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
5	Cl3(28)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
6	Cl4(52)	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
7	Cl4(44)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
8	Cl4(66)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
9	Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
10 I	Cl6(161)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
11 s	Cl6(152)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
12	Cl5(118)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
13	Cl6(153)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
14	Cl5(105)	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
15	Cl6(138)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
16	Cl7(187)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
17	Cl6(128)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
18	Cl7(180)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
19	Cl7(170)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
20	Cl8(195)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
21	Cl9(206)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
22	Cl10(209)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
23	Signal #2	-----	-----	-----	-----	-----	-----
24 I	Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
25	Cl2(8) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
26	Cl3(18) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
27 s	Cl3(34) #2	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
28	Cl3(28) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
29	Cl4(52) #2	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
30	Cl4(44) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
31	Cl4(66) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
32	Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
33 I	Cl6(161) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
34 s	Cl6(152) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
35	Cl5(118) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
36	Cl6(153) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
37	Cl5(105) #2	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
38	Cl6(138) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
39	Cl7(187) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
40	Cl6(128) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
41	Cl7(180) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
42	Cl7(170) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
43	Cl8(195) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
44	Cl9(206) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
45	Cl10(209) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015

Approval Date: Not Approved
Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 RIS/SIS Mult : 1.000
 Total Cpnds : 5

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound	IE03	IE05	IE06	IE07	IE08	IE10
1 I C15(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2 C15(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3 Signal #2	-----	-----	-----	-----	-----	-----
4 I C15(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
5 C15(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2021371m	0.10000	ng
10) I C16(161)	23.21	4304957	0.10000	ng
24) I C15(96) #2	20.51	12822282m	0.10000	ng
33) I C16(161) #2	26.79	28199596m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	119959m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
11) s C16(152)	20.48	106015	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
27) s C13(34) #2	16.48	687843m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
34) s C16(152) #2	23.58	473925m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	49812m	BelowCal	ng
3) C13(18)	12.13	63919m	BelowCal	ng
5) C13(28)	14.21	91859m	BelowCal	ng
6) C14(52)	15.84	129752	BelowCal	ng
7) C14(44)	16.70	95909	BelowCal	ng
8) C14(66)	18.60	103819m	BelowCal	ng
9) C15(101)	19.73	90878m	BelowCal	ng
12) C15(118)	22.40	106241m	BelowCal	ng
13) C16(153)	23.43 TW	91576m	BelowCal	ng
14) C15(105)	23.44 TW	124823m	BelowCal	ng
15) C16(138)	24.53	127136m	BelowCal	ng
16) C17(187)	25.29	111442m	BelowCal	ng
17) C16(128)	25.63	120454m	BelowCal	ng
18) C17(180)	27.16	127788	BelowCal	ng
19) C17(170)	27.96	138646m	BelowCal	ng
20) C18(195)	29.04	129501	BelowCal	ng
21) C19(206)	30.30	121956m	BelowCal	ng
22) C110(209)	30.90	102714m	BelowCal	ng
25) C12(8) #2	13.11	291232m	BelowCal	ng
26) C13(18) #2	15.00	430280m	BelowCal	ng
28) C13(28) #2	17.76	635375m	BelowCal	ng
29) C14(52) #2	19.15f	407881m	BelowCal	ng
30) C14(44) #2	19.96	700530m	BelowCal	ng
31) C14(66) #2	22.36	702095m	BelowCal	ng
32) C15(101) #2	23.30f	369053m	BelowCal	ng
35) C15(118) #2	26.37	931211m	BelowCal	ng
36) C16(153) #2	26.93	730887	BelowCal	ng
37) C15(105) #2	27.20	816392	BelowCal	ng
38) C16(138) #2	27.78	461727m	BelowCal	ng
39) C17(187) #2	28.14	667680	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
40)	Cl6(128) #2	28.54	880477m	BelowCal ng
41)	Cl7(180) #2	29.58	788251m	BelowCal ng
42)	Cl7(170) #2	30.21	800002m	BelowCal ng
43)	Cl8(195) #2	31.08	715719m	BelowCal ng
44)	Cl9(206) #2	32.18	637238m	BelowCal ng
45)	Cl10(209) #2	32.62	518551m	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
10) I C16(161)	23.21	4562564	0.10000	ng
24) I C15(96) #2	20.51	12416297m	0.10000	ng
33) I C16(161) #2	26.79	27129752m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.39	297705	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
11) s C16(152)	20.48	348526	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
27) s C13(34) #2	16.47	1801754m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
34) s C16(152) #2	23.57	1960933m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	180784	BelowCal	ng
3) C13(18)	12.12	242567	BelowCal	ng
5) C13(28)	14.21	356002	BelowCal	ng
6) C14(52)	15.83	330341	BelowCal	ng
7) C14(44)	16.70	371149	BelowCal	ng
8) C14(66)	18.60	419278	BelowCal	ng
9) C15(101)	19.73	349240m	BelowCal	ng
12) C15(118)	22.39	435665	BelowCal	ng
13) C16(153)	23.43 TW	390283m	BelowCal	ng
14) C15(105)	23.44 TW	495013m	BelowCal	ng
15) C16(138)	24.54	508129	BelowCal	ng
16) C17(187)	25.29	449817	BelowCal	ng
17) C16(128)	25.63	436637m	BelowCal	ng
18) C17(180)	27.16	515383	BelowCal	ng
19) C17(170)	27.96	571467	BelowCal	ng
20) C18(195)	29.04	524255m	BelowCal	ng
21) C19(206)	30.30	492822m	BelowCal	ng
22) C110(209)	30.90	411674m	BelowCal	ng
25) C12(8) #2	13.11	1082243m	BelowCal	ng
26) C13(18) #2	14.99	1474380m	BelowCal	ng
28) C13(28) #2	17.76	2242630m	BelowCal	ng
29) C14(52) #2	19.14	1313663m	BelowCal	ng
30) C14(44) #2	19.96	2184906m	BelowCal	ng
31) C14(66) #2	22.36	2512274m	BelowCal	ng
32) C15(101) #2	23.22f	2401459m	BelowCal	ng
35) C15(118) #2	26.34	1802006m	BelowCal	ng
36) C16(153) #2	26.93	2453717	BelowCal	ng
37) C15(105) #2	27.20	2870795	BelowCal	ng
38) C16(138) #2	27.78	1892629m	BelowCal	ng
39) C17(187) #2	28.14	2289736	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3074334	BelowCal	ng
41)	Cl7(180) #2	29.58	2699532	BelowCal	ng
42)	Cl7(170) #2	30.21	2859094m	BelowCal	ng
43)	Cl8(195) #2	31.08	2571011m	BelowCal	ng
44)	Cl9(206) #2	32.18	2275330m	BelowCal	ng
45)	Cl10(209) #2	32.62	1828475m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
10) I C16(161)	23.21	4815577	0.10000	ng
24) I C15(96) #2	20.51	13716870m	0.10000	ng
33) I C16(161) #2	26.79	29503850m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	526303	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
11) s C16(152)	20.48	653892	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
27) s C13(34) #2	16.47	3296041m	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
34) s C16(152) #2	23.58	3413733m	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.20	333163	BelowCal	ng
3) C13(18)	12.12	432057	BelowCal	ng
5) C13(28)	14.21	687914	BelowCal	ng
6) C14(52)	15.83	566807	BelowCal	ng
7) C14(44)	16.70	718063	BelowCal	ng
8) C14(66)	18.60	781317	BelowCal	ng
9) C15(101)	19.73	762207m	BelowCal	ng
12) C15(118)	22.39	822121	0.03093	ng
13) C16(153)	23.43 TW	582042m	BelowCal	ng
14) C15(105)	23.44 TW	965663m	BelowCal	ng
15) C16(138)	24.53	972641	BelowCal	ng
16) C17(187)	25.29	855745	BelowCal	ng
17) C16(128)	25.63	864076m	BelowCal	ng
18) C17(180)	27.16	964577	BelowCal	ng
19) C17(170)	27.96	1081580	BelowCal	ng
20) C18(195)	29.04	1016052	0.02214	ng
21) C19(206)	30.30 e	959902m	BelowCal	ng
22) C110(209)	30.90	792978	BelowCal	ng
25) C12(8) #2	13.10	2106184m	BelowCal	ng
26) C13(18) #2	14.99	2769502m	BelowCal	ng
28) C13(28) #2	17.76	4386422m	BelowCal	ng
29) C14(52) #2	19.14	2862174m	BelowCal	ng
30) C14(44) #2	19.96	4484836m	BelowCal	ng
31) C14(66) #2	22.35	4845930m	BelowCal	ng
32) C15(101) #2	23.22f	5513291m	BelowCal	ng
35) C15(118) #2	26.35	4335255m	BelowCal	ng
36) C16(153) #2	26.93	4720338	1858066.56915	ng
37) C15(105) #2	27.20	5791618	1122307.10620	ng
38) C16(138) #2	27.78	3691173m	BelowCal	ng
39) C17(187) #2	28.14	4540027	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	6164428	BelowCal	ng
41)	Cl7(180) #2	29.58	5451699	BelowCal	ng
42)	Cl7(170) #2	30.21	5828332m	1341992.36163	ng
43)	Cl8(195) #2	31.08	5312720	BelowCal	ng
44)	Cl9(206) #2	32.18	4740147m	BelowCal	ng
45)	Cl10(209) #2	32.62	3772500m	1559880.63544	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
10) I C16(161)	23.21	5366502	0.10000	ng
24) I C15(96) #2	20.51	14992953m	0.10000	ng
33) I C16(161) #2	26.79	34497986	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	990336	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
11) s C16(152)	20.48	1280995	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
27) s C13(34) #2	16.47	6281919m	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
34) s C16(152) #2	23.58	7591525m	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	e	607269	BelowCal ng
3) C13(18)	12.12	e	758928	BelowCal ng
5) C13(28)	14.21	e	1349346	BelowCal ng
6) C14(52)	15.83	e	1019304	BelowCal ng
7) C14(44)	16.70	e	1370610	4937947.47625 ng
8) C14(66)	18.60	e	1544814	BelowCal ng
9) C15(101)	19.73	e	1552699m	BelowCal ng
12) C15(118)	22.39	e	1625326	BelowCal ng
13) C16(153)	23.43	TW	1671077m	BelowCal ng
14) C15(105)	23.44	TW	2067241m	BelowCal ng
15) C16(138)	24.53	E	1975640	BelowCal ng
16) C17(187)	25.29	e	1704362m	BelowCal ng
17) C16(128)	25.63	e	1845001m	BelowCal ng
18) C17(180)	27.16	E	2019174m	BelowCal ng
19) C17(170)	27.96	E	2282709	3008040.19192 ng
20) C18(195)	29.04	E	2138682m	BelowCal ng
21) C19(206)	30.30	E	2074698m	BelowCal ng
22) C110(209)	30.90	E	1700197m	BelowCal ng
25) C12(8) #2	13.10	e	4038278m	BelowCal ng
26) C13(18) #2	14.99	e	4609294m	BelowCal ng
28) C13(28) #2	17.76	e	8581359m	2635734.36911 ng
29) C14(52) #2	19.14	e	4960711m	BelowCal ng
30) C14(44) #2	19.96	e	8717176m	1574158.07943 ng
31) C14(66) #2	22.36	e	9936993m	BelowCal ng
32) C15(101) #2	23.21f	e	12947398m	BelowCal ng
35) C15(118) #2	26.35	e	9808234m	BelowCal ng
36) C16(153) #2	26.93	E	9577231	5152267.10485 ng
37) C15(105) #2	27.20	E	12760987	3375570.13183 ng
38) C16(138) #2	27.78	e	8526537m	1389497.67562 ng
39) C17(187) #2	28.14	E	9590626	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	13380771	BelowCal ng
41)	Cl7(180) #2	29.58	E	11878441m	BelowCal ng
42)	Cl7(170) #2	30.21	E	12986040m	4087411.97930 ng
43)	Cl8(195) #2	31.08	E	11911883m	BelowCal ng
44)	Cl9(206) #2	32.18	E	10701956m	BelowCal ng
45)	Cl10(209) #2	32.62	E	8387432m	5983940.61406 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
10) I C16(161)	23.21	5424577	0.10000	ng
24) I C15(96) #2	20.51	15446142m	0.10000	ng
33) I C16(161) #2	26.79	34872167	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1861197	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
11) s C16(152)	20.48	2391536	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
27) s C13(34) #2	16.47	12156621m	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
34) s C16(152) #2	23.57	13279030m	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 1130878	BelowCal	ng
3) C13(18)	12.12	E 1399997	BelowCal	ng
5) C13(28)	14.21	E 2563059	BelowCal	ng
6) C14(52)	15.83	E 1879706	BelowCal	ng
7) C14(44)	16.70	E 2546734m	8209713.15303	ng
8) C14(66)	18.60	E 2898127	BelowCal	ng
9) C15(101)	19.74	E 2892299m	BelowCal	ng
12) C15(118)	22.39	E 2978206	BelowCal	ng
13) C16(153)	23.44	TW e 2876946m	BelowCal	ng
14) C15(105)	23.45	TW e 3582092m	1460512.29312	ng
15) C16(138)	24.54	E 3695490	BelowCal	ng
16) C17(187)	25.29	E 3239289	BelowCal	ng
17) C16(128)	25.64	E 3673746m	3005443.36077	ng
18) C17(180)	27.15	E 3855848m	BelowCal	ng
19) C17(170)	27.96	E 4378231	5123824.53354	ng
20) C18(195)	29.04	E 4116319m	BelowCal	ng
21) C19(206)	30.31	E 3960506m	BelowCal	ng
22) C110(209)	30.90	E 3217630m	BelowCal	ng
25) C12(8) #2	13.10	E 7701304	BelowCal	ng
26) C13(18) #2	14.99	E 8745402m	BelowCal	ng
28) C13(28) #2	17.76	E 16942159	4721046.44848	ng
29) C14(52) #2	19.14	E 9969394	3586542.90657	ng
30) C14(44) #2	19.96	E 17386149m	5402544.89334	ng
31) C14(66) #2	22.35	E 19075871m	BelowCal	ng
32) C15(101) #2	23.21f	E 25811518m	BelowCal	ng
35) C15(118) #2	26.35	e 16530172m	BelowCal	ng
36) C16(153) #2	26.93	E 17723976	8475069.04022	ng
37) C15(105) #2	27.20	E 24719069	5584053.95798	ng
38) C16(138) #2	27.78	E 17133888m	4026737.36316	ng
39) C17(187) #2	28.14	E 18398636	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	26047859	BelowCal ng
41)	Cl7(180) #2	29.58	E	23443478m	BelowCal ng
42)	Cl7(170) #2	30.21	E	25601551m	6820215.95092 ng
43)	Cl8(195) #2	31.08	E	23548017m	BelowCal ng
44)	Cl9(206) #2	32.18	E	21216572m	BelowCal ng
45)	Cl10(209) #2	32.62	E	16438463m	10094597.27940 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I C15(96)	17.39	2857033m	0.10000 ng
10) I C16(161)	23.21	5785136	0.10000 ng
24) I C15(96) #2	20.51	15534608m	0.10000 ng
33) I C16(161) #2	26.79	28894537	0.10000 ng
System Monitoring Compounds			
4) s C13(34)	13.40	6582490m BelowCal	ng
Spiked Amount	0.3200	Recovery =	0.00%
11) s C16(152)	20.48	8920810 BelowCal	ng
Spiked Amount	0.3213	Recovery =	0.00%
27) s C13(34) #2	16.47	39634387m BelowCal	ng
Spiked Amount	0.3200	Recovery =	0.00%
34) s C16(152) #2	23.57	49764814m BelowCal	ng
Spiked Amount	0.3213	Recovery =	0.00%
Target Compounds			
2) C12(8)	10.21	E 3802803 BelowCal	ng
3) C13(18)	12.12	E 4625770 BelowCal	ng
5) C13(28)	14.20	E 9305861 BelowCal	ng
6) C14(52)	15.83	E 6491550m BelowCal	ng
7) C14(44)	16.70	E 9213228m 16878676.73504	ng
8) C14(66)	18.60	E 10581706 BelowCal	ng
9) C15(101)	19.74	E 11214785m BelowCal	ng
12) C15(118)	22.39	E 10845273 BelowCal	ng
13) C16(153)	23.44	TW E 11086255m BelowCal	ng
14) C15(105)	23.45	TW E 12238036m 4834222.71684	ng
15) C16(138)	24.54	E 14181010 BelowCal	ng
16) C17(187)	25.28	E 12362255m BelowCal	ng
17) C16(128)	25.63	E 13614003m 7619432.15592	ng
18) C17(180)	27.16	E 15356923 BelowCal	ng
19) C17(170)	27.96	E 17491960 11231671.25949	ng
20) C18(195)	29.04	E 16570469m BelowCal	ng
21) C19(206)	30.30	E 15913312m BelowCal	ng
22) C110(209)	30.90	E 12593895m BelowCal	ng
25) C12(8) #2	13.10	E 24205484m BelowCal	ng
26) C13(18) #2	14.99	E 27041957m BelowCal	ng
28) C13(28) #2	17.76	E 56387566m 9817113.52330	ng
29) C14(52) #2	19.14	E 31213496m 8327658.06829	ng
30) C14(44) #2	19.96	E 56797595m 12385262.50102	ng
31) C14(66) #2	22.36	E 65508405m BelowCal	ng
32) C15(101) #2	23.21f	E 73990498m BelowCal	ng
35) C15(118) #2	26.34	E 53052856m BelowCal	ng
36) C16(153) #2	26.93	E 58782173 19272949.92145	ng
37) C15(105) #2	27.20	E 87183647 12882056.53676	ng
38) C16(138) #2	27.78	E 63446136m 10766758.70710	ng
39) C17(187) #2	28.14	E 63573730 BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	91431997	BelowCal ng
41)	Cl7(180) #2	29.58	E	83277221m	BelowCal ng
42)	Cl7(170) #2	30.21	E	91217127m	15760612.61828 ng
43)	Cl8(195) #2	31.08	E	84844015m	BelowCal ng
44)	Cl9(206) #2	32.17	E	76001510m	BelowCal ng
45)	Cl10(209) #2	32.62	E	57560994m	23285632.07742 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
10) I C16(161)	23.21	5353469	0.10000	ng	
24) I C15(96) #2	20.51	13969685m	0.10000	ng	
33) I C16(161) #2	26.78	30447371	0.10000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	1040909	0.04104	ng	2.6
Spiked Amount	0.0400	Recovery	=	102.60%	
11) s C16(152)	20.48	1350202	0.04329	ng	7.8
Spiked Amount	0.0402	Recovery	=	107.79%	
27) s C13(34) #2	16.47	6131122m	0.04171	ng	4.3
Spiked Amount	0.0400	Recovery	=	104.27%	
34) s C16(152) #2	23.57	6327177m	0.04129	ng	2.8
Spiked Amount	0.0402	Recovery	=	102.81%	
Target Compounds					
2) C12(8)	10.21	664551	0.04326	ng	8.1
3) C13(18)	12.12	802051	0.04152	ng	3.8
5) C13(28)	14.21	1396518	0.04098	ng	2.5
6) C14(52)	15.83	1070948	0.04112	ng	2.8
7) C14(44)	16.70	1426889m	0.04167	ng	4.2
8) C14(66)	18.60	1565208	0.04028	ng	0.7
9) C15(101)	19.73	1426993m	0.03706	ng	-7.3
12) C15(118)	22.39	1627776	0.04151	ng	3.8
13) C16(153)	23.43	1467714m	0.03933	ng	-1.7
14) C15(105)	23.45	1824192m	0.03778	ng	-5.5
15) C16(138)	24.53	2023467	0.04232	ng	5.8
16) C17(187)	25.29	1787515	0.04281	ng	7.0
17) C16(128)	25.63	1824156m	0.03935	ng	-1.6
18) C17(180)	27.15	2038700	0.04138	ng	3.4
19) C17(170)	27.96	2269675	0.04068	ng	1.7
20) C18(195)	29.04	2088594m	0.03989	ng	-0.3
21) C19(206)	30.30	1961931m	0.03884	ng	-2.9
22) C110(209)	30.90	1612364m	0.03909	ng	-2.3
25) C12(8) #2	13.10	3947204m	0.04248	ng	6.2
26) C13(18) #2	14.99	4351305m	0.03989	ng	-0.3
28) C13(28) #2	17.76	8214453m	0.04094	ng	2.3
29) C14(52) #2	19.14	4859257m	0.04058	ng	1.4
30) C14(44) #2	19.96	8466239m	0.04126	ng	3.1
31) C14(66) #2	22.35	9294328m	0.04096	ng	2.4
32) C15(101) #2	23.24	4934904m	0.03828	ng	-4.3
35) C15(118) #2	26.35	7705344m	0.03951	ng	-1.2
36) C16(153) #2	26.93	8835029	0.04347	ng	8.7
37) C15(105) #2	27.20	11200960m	0.04079	ng	2.0
38) C16(138) #2	27.78	7622194m	0.04108	ng	2.7
39) C17(187) #2	28.14	8806327	0.04269	ng	6.7

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	11964334m	0.04137	ng	3.4
41)	Cl7(180) #2	29.58	10533125m	0.04073	ng	1.8
42)	Cl7(170) #2	30.21	11398863m	0.04051	ng	1.3
43)	Cl8(195) #2	31.08	10207239m	0.03956	ng	-1.1
44)	Cl9(206) #2	32.18	9021058m	0.03879	ng	-3.0
45)	Cl10(209) #2	32.62	7069806m	0.03894	ng	-2.6

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7442.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0421\M7442.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:54 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:06 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2269787m	0.10000	ng
10) I C16(161)	23.22	5231475m	0.10000	ng
24) I C15(96) #2	20.51	14152396m	0.10000	ng
33) I C16(161) #2	26.79	34414950m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	918267m	0.03986	ng
Spiked Amount	0.0400	Recovery	=	99.65%
11) s C16(152)	20.48	1218960m	0.03967	ng
Spiked Amount	0.0402	Recovery	=	98.78%
27) s C13(34) #2	16.47	5980821m	0.03997	ng
Spiked Amount	0.0400	Recovery	=	99.92%
34) s C16(152) #2	23.57	7274003m	0.04206	ng
Spiked Amount	0.0402	Recovery	=	104.73%
Target Compounds				
2) C12(8)	10.21	566668	0.04042	ng
3) C13(18)	12.13	714298m	0.04076	ng
5) C13(28)	14.21	1224590m	0.03960	ng
6) C14(52)	15.83	930851m	0.03919	ng
7) C14(44)	16.69	1259484m	0.04054	ng
8) C14(66)	18.60	1511510m	0.04329	ng
9) C15(101)	19.73	1285858m	0.03690	ng
12) C15(118)	22.39	1526170m	0.03966	ng
13) C16(153)	23.43	1483737m	0.04075	ng
14) C15(105)	23.45	1919879m	0.04099	ng
15) C16(138)	24.53	1851997m	0.03944	ng
16) C17(187)	25.29	1680298m	0.04106	ng
17) C16(128)	25.64	1961995m	0.04347	ng
18) C17(180)	27.16	2073319m	0.04316	ng
19) C17(170)	27.96	2310265m	0.04247	ng
20) C18(195)	29.04	2272331m	0.04463	ng
21) C19(206)	30.30	2219945m	0.04526	ng
22) C110(209)	30.90	1834722m	0.04588	ng
25) C12(8) #2	13.10	3756164m	0.03965	ng
26) C13(18) #2	14.99	4517758m	0.04106	ng
28) C13(28) #2	17.76	7756306m	0.03794	ng
29) C14(52) #2	19.14	4843443m	0.03986	ng
30) C14(44) #2	19.96	8720049m	0.04200	ng
31) C14(66) #2	22.36	9327008m	0.04054	ng
32) C15(101) #2	23.24	5196126m	0.03993	ng
35) C15(118) #2	26.35	8752763m	0.03973	ng
36) C16(153) #2	26.93	9100432	0.03926	ng
37) C15(105) #2	27.20	12100613	0.03892	ng
38) C16(138) #2	27.78	8587550m	0.04095	ng
39) C17(187) #2	28.14	9796183	0.04198	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7442.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0421\M7442.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:54 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:06 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	13641651	0.04175	ng
41)	Cl7(180) #2	29.58	12630565m	0.04329	ng
42)	Cl7(170) #2	30.22	13788854m	0.04341	ng
43)	Cl8(195) #2	31.08	13321040m	0.04578	ng
44)	Cl9(206) #2	32.18	13454220m	0.05133	ng
45)	Cl10(209) #2	32.62	10261626m	0.05029	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7453.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0421\M7453.D\ECD2B.CH
 Acq On : 11-4-2014 08:04:39 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:32 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3341593	0.10000	ng
10) I C16(161)	23.21	7226750m	0.10000	ng
24) I C15(96) #2	20.51	18282122m	0.10000	ng
33) I C16(161) #2	26.79	42945742	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2398421m	0.07685	ng
Spiked Amount	0.0800	Recovery	=	96.06%
11) s C16(152)	20.48	3268428	0.08177	ng
Spiked Amount	0.0803	Recovery	=	101.81%
27) s C13(34) #2	16.47	13656110m	0.07543	ng
Spiked Amount	0.0800	Recovery	=	94.29%
34) s C16(152) #2	23.57	17161243m	0.08176	ng
Spiked Amount	0.0803	Recovery	=	101.79%
Target Compounds				
2) C12(8)	10.21	1433978	0.07502	ng
3) C13(18)	12.13	1751605	0.07379	ng
5) C13(28)	14.21	3356577	0.07822	ng
6) C14(52)	15.83	2420874	0.07653	ng
7) C14(44)	16.70	3325933m	0.07755	ng
8) C14(66)	18.60	3742272	0.07666	ng
9) C15(101)	19.73	3665706m	0.07483	ng
12) C15(118)	22.39	3708517m	0.07349	ng
13) C16(153)	23.44 TW	3857002m	0.07897	ng
14) C15(105)	23.45 TW	4700103m	0.07686	ng
15) C16(138)	24.54	4791000	0.07711	ng
16) C17(187)	25.29	4242296m	0.07821	ng
17) C16(128)	25.64	4949327m	0.08151	ng
18) C17(180)	27.16	4969838m	0.07699	ng
19) C17(170)	27.96	5648592	0.07712	ng
20) C18(195)	29.04	5355940m	0.07783	ng
21) C19(206)	30.30	5076938m	0.07637	ng
22) C110(209)	30.90	4093547m	0.07582	ng
25) C12(8) #2	13.10	8219742m	0.07089	ng
26) C13(18) #2	14.99	9544887m	0.07252	ng
28) C13(28) #2	17.76	18086729m	0.07172	ng
29) C14(52) #2	19.14	10761853m	0.07242	ng
30) C14(44) #2	19.96	20529731m	0.08022	ng
31) C14(66) #2	22.36	22507109m	0.07927	ng
32) C15(101) #2	23.24	12790835m	0.07851	ng
35) C15(118) #2	26.35	21152904m	0.08087	ng
36) C16(153) #2	26.93	20718566m	0.07481	ng
37) C15(105) #2	27.20	30034563	0.07844	ng
38) C16(138) #2	27.78	22106515m	0.08372	ng
39) C17(187) #2	28.14	22790991	0.07995	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7453.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0421\M7453.D\ECD2B.CH
 Acq On : 11-4-2014 08:04:39 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:32 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	32558228	0.08087	ng
41)	Cl7(180) #2	29.58	29639827	0.08198	ng
42)	Cl7(170) #2	30.21	32263450m	0.08166	ng
43)	Cl8(195) #2	31.08	29862240m	0.08216	ng
44)	Cl9(206) #2	32.18	27165216m	0.08283	ng
45)	Cl10(209) #2	32.62	21078190m	0.08304	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7464.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0421\M7464.D\ECD2B.CH
 Acq On : 11-5-2014 04:13:50 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:48 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3616079	0.10000	ng
10) I C16(161)	23.21	8156325	0.10000	ng
24) I C15(96) #2	20.52	17638012m	0.10000	ng
33) I C16(161) #2	26.79	42315276	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1475150	0.04024	ng
Spiked Amount	0.0400	Recovery	=	100.60%
11) s C16(152)	20.48	1983066	0.04158	ng
Spiked Amount	0.0402	Recovery	=	103.54%
27) s C13(34) #2	16.48	7319634m	0.03916	ng
Spiked Amount	0.0400	Recovery	=	97.90%
34) s C16(152) #2	23.57	8303585m	0.03878	ng
Spiked Amount	0.0402	Recovery	=	96.56%
Target Compounds				
2) C12(8)	10.21	890172	0.03977	ng
3) C13(18)	12.13	1105032	0.03938	ng
5) C13(28)	14.21	2054539	0.04191	ng
6) C14(52)	15.84	1510166	0.04005	ng
7) C14(44)	16.70	2034699m	0.04117	ng
8) C14(66)	18.60	2272804	0.04061	ng
9) C15(101)	19.74	2165765m	0.03917	ng
12) C15(118)	22.39	2345483	0.03904	ng
13) C16(153)	23.44 TW	2106983m	0.03696	ng
14) C15(105)	23.45 TW	2943893m	0.04025	ng
15) C16(138)	24.54	2898128	0.03960	ng
16) C17(187)	25.29	2550014m	0.03988	ng
17) C16(128)	25.64	2875695m	0.04077	ng
18) C17(180)	27.16	2947347m	0.03914	ng
19) C17(170)	27.96	3324183m	0.03903	ng
20) C18(195)	29.04	3139033m	0.03932	ng
21) C19(206)	30.31	2984106m	0.03878	ng
22) C110(209)	30.90	2422533m	0.03852	ng
25) C12(8) #2	13.11	4529796m	0.03823	ng
26) C13(18) #2	14.99	5575748m	0.04059	ng
28) C13(28) #2	17.76	9604471m	0.03768	ng
29) C14(52) #2	19.14	6051041m	0.03996	ng
30) C14(44) #2	19.96	10818807m	0.04180	ng
31) C14(66) #2	22.36	11748702m	0.04101	ng
32) C15(101) #2	23.24	6556290m	0.04047	ng
35) C15(118) #2	26.35	10869496m	0.04017	ng
36) C16(153) #2	26.93	10985618	0.03847	ng
37) C15(105) #2	27.20	15058592	0.03941	ng
38) C16(138) #2	27.78	11024568m	0.04276	ng
39) C17(187) #2	28.14	11703103	0.04072	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7464.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0421\M7464.D\ECD2B.CH
 Acq On : 11-5-2014 04:13:50 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:48 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	16427343m	0.04085	ng
41)	Cl7(180) #2	29.58	14778962m	0.04114	ng
42)	Cl7(170) #2	30.22	16163134m	0.04135	ng
43)	Cl8(195) #2	31.09	15038634m	0.04198	ng
44)	Cl9(206) #2	32.18	13842767m	0.04289	ng
45)	Cl10(209) #2	32.62	10897711m	0.04330	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7470.D\ECD1A.CH Vial: 30
 Signal #2 : I:\M\DATA\SM0421\M7470.D\ECD2B.CH
 Acq On : 11-5-2014 08:40:48 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:47:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3715119m	0.10000	ng
10) I C16(161)	23.21	8337080m	0.10000	ng
24) I C15(96) #2	20.52	18841562m	0.10000	ng
33) I C16(161) #2	26.79	45787052m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2706661m	0.07817	ng
Spiked Amount	0.0800	Recovery	=	97.71%
11) s C16(152)	20.48	3706158	0.08026	ng
Spiked Amount	0.0803	Recovery	=	99.93%
27) s C13(34) #2	16.47	13855173m	0.07413	ng
Spiked Amount	0.0800	Recovery	=	92.66%
34) s C16(152) #2	23.57	18249113m	0.08155	ng
Spiked Amount	0.0803	Recovery	=	101.53%
Target Compounds				
2) C12(8)	10.21	1603793	0.07554	ng
3) C13(18)	12.13	1968340	0.07472	ng
5) C13(28)	14.21	3809550m	0.08002	ng
6) C14(52)	15.83	2746740	0.07836	ng
7) C14(44)	16.70	3745636m	0.07866	ng
8) C14(66)	18.60	4349701	0.08051	ng
9) C15(101)	19.74	4589144m	0.08503	ng
12) C15(118)	22.39	4435443	0.07643	ng
13) C16(153)	23.45 T	4490127m	0.07973	ng
14) C15(105)	23.45 T	5283964m	0.07470	ng
15) C16(138)	24.54	5609054	0.07832	ng
16) C17(187)	25.29	4882635m	0.07801	ng
17) C16(128)	25.63	5161911m	0.07331	ng
18) C17(180)	27.16	5874125	0.07896	ng
19) C17(170)	27.96	6677267	0.07910	ng
20) C18(195)	29.04	6336221m	0.07988	ng
21) C19(206)	30.31	6000998m	0.07832	ng
22) C110(209)	30.90	4800282m	0.07713	ng
25) C12(8) #2	13.10	8613581m	0.07221	ng
26) C13(18) #2	14.99	9905145m	0.07310	ng
28) C13(28) #2	17.76	19131387m	0.07377	ng
29) C14(52) #2	19.15	11699717m	0.07683	ng
30) C14(44) #2	19.96	21982747m	0.08362	ng
31) C14(66) #2	22.36	23396042m	0.08000	ng
32) C15(101) #2	23.24	12436227m	0.07400	ng
35) C15(118) #2	26.35	20509466m	0.07313	ng
36) C16(153) #2	26.93	21873908	0.07404	ng
37) C15(105) #2	27.20	30747608m	0.07531	ng
38) C16(138) #2	27.78	24252389m	0.08607	ng
39) C17(187) #2	28.14	23491366m	0.07726	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7470.D\ECD1A.CH Vial: 30
 Signal #2 : I:\M\DATA\SM0421\M7470.D\ECD2B.CH
 Acq On : 11-5-2014 08:40:48 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:47:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	33655508m	0.07840	ng
41)	Cl7(180) #2	29.58	30993167m	0.08041	ng
42)	Cl7(170) #2	30.21	33914488m	0.08052	ng
43)	Cl8(195) #2	31.08	32293028m	0.08331	ng
44)	Cl9(206) #2	32.18	29946923m	0.08560	ng
45)	Cl10(209) #2	32.62	23327163m	0.08618	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7470.D MM0417C.M Fri Nov 21 11:00:37 2014 046776CFS

Signal #1 : I:\M\DATA\SM0425\M7644.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0425\M7644.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:12 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:52:24 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2454734m	0.10000	ng
10) I C16(161)	23.21	5632999m	0.10000	ng
24) I C15(96) #2	20.52	17049609m	0.10000	ng
33) I C16(161) #2	26.79	39504743m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	955741m	0.03811	ng
Spiked Amount	0.0400	Recovery	=	95.28%
11) s C16(152)	20.48	1362781m	0.04135	ng
Spiked Amount	0.0402	Recovery	=	102.96%
27) s C13(34) #2	16.47	6825453m	0.03760	ng
Spiked Amount	0.0400	Recovery	=	94.00%
34) s C16(152) #2	23.57	7969432m	0.03998	ng
Spiked Amount	0.0402	Recovery	=	99.55%
Target Compounds				
2) C12(8)	10.21	572651	0.03738	ng
3) C13(18)	12.13	715816m	0.03726	ng
5) C13(28)	14.21	1281046m	0.03818	ng
6) C14(52)	15.83	962759m	0.03713	ng
7) C14(44)	16.70	1331899m	0.03953	ng
8) C14(66)	18.60	1440080m	0.03764	ng
9) C15(101)	19.73	1440845m	0.03833	ng
12) C15(118)	22.39	1482561m	0.03539	ng
13) C16(153)	23.45 T	1593986m	0.04065	ng
14) C15(105)	23.45 T	1989836m	0.03930	ng
15) C16(138)	24.54	2004722m	0.03966	ng
16) C17(187)	25.29	1796543m	0.04074	ng
17) C16(128)	25.64	1820593m	0.03725	ng
18) C17(180)	27.16	2117075m	0.04081	ng
19) C17(170)	27.96	2376130m	0.04047	ng
20) C18(195)	29.04	2309713m	0.04202	ng
21) C19(206)	30.31	2235761	0.04222	ng
22) C110(209)	30.90	1900731m	0.04405	ng
25) C12(8) #2	13.11	4180117m	0.03632	ng
26) C13(18) #2	14.99	4923370m	0.03648	ng
28) C13(28) #2	17.76	8681228m	0.03503	ng
29) C14(52) #2	19.14	5440636m	0.03689	ng
30) C14(44) #2	19.97	9885755m	0.03934	ng
31) C14(66) #2	22.36	10637376m	0.03822	ng
32) C15(101) #2	23.24	5767328m	0.03650	ng
35) C15(118) #2	26.35	9475048m	0.03724	ng
36) C16(153) #2	26.94	10591309	0.03986	ng
37) C15(105) #2	27.20	13607745m	0.03809	ng
38) C16(138) #2	27.78	10428361m	0.04333	ng
39) C17(187) #2	28.14	11464659	0.04284	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7644.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0425\M7644.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:12 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:52:24 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	15578313m	0.04152	ng
41)	Cl7(180) #2	29.59	14295996m	0.04267	ng
42)	Cl7(170) #2	30.22	15507465m	0.04252	ng
43)	Cl8(195) #2	31.09	14849870m	0.04444	ng
44)	Cl9(206) #2	32.18	13617882m	0.04522	ng
45)	Cl10(209) #2	32.62	10914700m	0.04653	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7655.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0425\M7655.D\ECD2B.CH
 Acq On : 11-20-2014 07:22:12 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 07:37:21 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 07:37:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3275004m	0.10000	ng
10) I C16(161)	23.22	7124865m	0.10000	ng
24) I C15(96) #2	20.52	18267071m	0.10000	ng
33) I C16(161) #2	26.79	41724750m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2346692m	0.07670	ng
Spiked Amount	0.0800	Recovery	=	95.88%
11) s C16(152)	20.48	3238387	0.08221	ng
Spiked Amount	0.0803	Recovery	=	102.35%
27) s C13(34) #2	16.48	13755517m	0.07611	ng
Spiked Amount	0.0800	Recovery	=	95.14%
34) s C16(152) #2	23.57	16969612m	0.08322	ng
Spiked Amount	0.0803	Recovery	=	103.61%
Target Compounds				
2) C12(8)	10.21	1367602m	0.07272	ng
3) C13(18)	12.13	1705196	0.07322	ng
5) C13(28)	14.21	3147845m	0.07452	ng
6) C14(52)	15.84	2296381m	0.07368	ng
7) C14(44)	16.70	3206694m	0.07615	ng
8) C14(66)	18.60	3475763m	0.07225	ng
9) C15(101)	19.74	4176711m	0.08801	ng
12) C15(118)	22.39	3428991m	0.06854	ng
13) C16(153)	23.45 T	3698161m	0.07669	ng
14) C15(105)	23.45 T	4516826m	0.07472	ng
15) C16(138)	24.54	4660609	0.07602	ng
16) C17(187)	25.29	4254066	0.07963	ng
17) C16(128)	25.64	4639137m	0.07729	ng
18) C17(180)	27.16	4922104	0.07735	ng
19) C17(170)	27.96	5514977	0.07634	ng
20) C18(195)	29.04	5319756m	0.07843	ng
21) C19(206)	30.31	5085095m	0.07763	ng
22) C110(209)	30.90	4208684m	0.07922	ng
25) C12(8) #2	13.10	8308348m	0.07181	ng
26) C13(18) #2	15.00	9887262m	0.07558	ng
28) C13(28) #2	17.76	18091332m	0.07181	ng
29) C14(52) #2	19.15	11176418m	0.07558	ng
30) C14(44) #2	19.97	20264094m	0.07916	ng
31) C14(66) #2	22.36	21517659m	0.07559	ng
32) C15(101) #2	23.24	13147296m	0.08080	ng
35) C15(118) #2	26.36	20676156m	0.08139	ng
36) C16(153) #2	26.94	19786069m	0.07347	ng
37) C15(105) #2	27.21	27490728m	0.07388	ng
38) C16(138) #2	27.78	21442597m	0.08358	ng
39) C17(187) #2	28.14	22482108	0.08120	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7655.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0425\M7655.D\ECD2B.CH
 Acq On : 11-20-2014 07:22:12 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 07:37:21 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 07:37:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	30774230m	0.07867	ng
41)	Cl7(180) #2	29.59	28509975m	0.08116	ng
42)	Cl7(170) #2	30.22	30892866m	0.08049	ng
43)	Cl8(195) #2	31.09	29390015m	0.08321	ng
44)	Cl9(206) #2	32.18	27339628m	0.08576	ng
45)	Cl10(209) #2	32.62	21687149m	0.08791	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7666.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0425\M7666.D\ECD2B.CH
 Acq On : 11-21-2014 03:32:21 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:01:59 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:01:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3615358m	0.10000	ng
10) I C16(161)	23.22	7938143m	0.10000	ng
24) I C15(96) #2	20.51	19848168m	0.10000	ng
33) I C16(161) #2	26.79	46038868	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1395508m	0.03773	ng
Spiked Amount	0.0400	Recovery	=	94.32%
11) s C16(152)	20.48	1924173	0.04144	ng
Spiked Amount	0.0402	Recovery	=	103.19%
27) s C13(34) #2	16.48	8063219m	0.03823	ng
Spiked Amount	0.0400	Recovery	=	95.58%
34) s C16(152) #2	23.57	9812710m	0.04244	ng
Spiked Amount	0.0402	Recovery	=	105.68%
Target Compounds				
2) C12(8)	10.21	838536	0.03713	ng
3) C13(18)	12.13	1064117	0.03767	ng
5) C13(28)	14.21	1940818	0.03938	ng
6) C14(52)	15.83	1435760	0.03770	ng
7) C14(44)	16.70	1955475m	0.03939	ng
8) C14(66)	18.60	2117730	0.03757	ng
9) C15(101)	19.73	2137810m	0.03864	ng
12) C15(118)	22.39	2153115	0.03660	ng
13) C16(153)	23.44	2031903m	0.03661	ng
14) C15(105)	23.46	2808269m	0.03937	ng
15) C16(138)	24.54	2771342	0.03885	ng
16) C17(187)	25.29	2514949	0.04045	ng
17) C16(128)	25.63	2734861m	0.03980	ng
18) C17(180)	27.16	2882356	0.03934	ng
19) C17(170)	27.96	3245322	0.03916	ng
20) C18(195)	29.04	3123873	0.04025	ng
21) C19(206)	30.31	3027624	0.04050	ng
22) C110(209)	30.90	2531816	0.04152	ng
25) C12(8) #2	13.11	4964869m	0.03713	ng
26) C13(18) #2	14.99	5745476m	0.03658	ng
28) C13(28) #2	17.76	10520478m	0.03659	ng
29) C14(52) #2	19.15	6680979m	0.03913	ng
30) C14(44) #2	19.97	10781023m	0.03667	ng
31) C14(66) #2	22.36	12591054m	0.03891	ng
32) C15(101) #2	23.24	7232569m	0.03960	ng
35) C15(118) #2	26.35	11580796m	0.03925	ng
36) C16(153) #2	26.93	11649550m	0.03739	ng
37) C15(105) #2	27.20	15622070m	0.03750	ng
38) C16(138) #2	27.78	11833898m	0.04219	ng
39) C17(187) #2	28.14	12794839m	0.04093	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7666.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0425\M7666.D\ECD2B.CH
 Acq On : 11-21-2014 03:32:21 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:01:59 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:01:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	17828037m	0.04074	ng
41)	Cl7(180) #2	29.59	16293734m	0.04170	ng
42)	Cl7(170) #2	30.22	17784669m	0.04183	ng
43)	Cl8(195) #2	31.09	16914459m	0.04342	ng
44)	Cl9(206) #2	32.18	16051201m	0.04574	ng
45)	Cl10(209) #2	32.62	12916046m	0.04726	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7666.D MM0417C.M Fri Nov 21 11:02:42 2014 046776CFS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:34 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2038180	0.10000	ng
4) I C15(96) #2	20.51	12872032m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	102746m	0.00162	ng
5) C15(101) #2	23.23	516701m	0.00035	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7205.D MM0417F.M Fri Dec 05 16:10:49 2014

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:38 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
4) I C15(96) #2	20.51	13386960	0.10000	ng
Target Compounds				
2) C15(101)	19.73	341674m	0.00915	ng
5) C15(101) #2	23.22	3258192m	0.02515	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
4) I C15(96) #2	20.51	13612237m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	753837m	0.02114	ng
5) C15(101) #2	23.22	5441576m	0.04378	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:46 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
4) I C15(96) #2	20.51	14869473m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	1636592m	0.04499	ng
5) C15(101) #2	23.21	11842524m	0.08946	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7209.D MM0417F.M Fri Dec 05 16:10:58 2014

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:50 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
4) I C15(96) #2	20.51	15494530m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2973113m	0.08080	ng
5) C15(101) #2	23.21	25660002m	0.18179	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7210.D MM0417F.M Fri Dec 05 16:11:00 2014

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:54 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2539311m	0.10000	ng
4) I C15(96) #2	20.51	15194166m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	11042195m	0.36809	ng
5) C15(101) #2	23.22 e	68456197m	0.44286	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:24:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:22:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
4) I C15(96) #2	20.51	13936712m	0.10000	ng	
Target Compounds					
2) C15(101)	19.73	1516710m	0.03859	ng	-3.5
5) C15(101) #2	23.21	11320633m	0.03850	ng	-3.8

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7213.D MM0417F.M Fri Dec 05 16:11:01 2014

Signal #1 : I:\M\DATA\SM0421\M7442.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0421\M7442.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:54 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:17 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2262683m	0.10000	ng
4) I C15(96) #2	20.51	14180470m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	1335066m	0.03760	ng
5) C15(101) #2	23.21	12957034m	0.04344	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7453.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0421\M7453.D\ECD2B.CH
 Acq On : 11-4-2014 08:04:39 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:51 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3341593	0.10000	ng
4) I C15(96) #2	20.51	17858178m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	3772198m	0.07456	ng
5) C15(101) #2	23.21	28255308m	0.07774	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7464.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0421\M7464.D\ECD2B.CH
 Acq On : 11-5-2014 04:13:50 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:09 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:24:02 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3616079	0.10000	ng
4) I C15(96) #2	20.52	17692800m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2310869m	0.04093	ng
5) C15(101) #2	23.22	13537123m	0.03623	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7470.D\ECD1A.CH Vial: 30
 Signal #2 : I:\M\DATA\SM0421\M7470.D\ECD2B.CH
 Acq On : 11-5-2014 08:40:48 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:35 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:24:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3763261	0.10000	ng
4) I C15(96) #2	20.52	18529766m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	4585412m	0.08081	ng
5) C15(101) #2	23.21	30734658m	0.08189	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7644.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0425\M7644.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:12 am Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:52:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:40:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2460463m	0.10000	ng
4) I C15(96) #2	20.52	16965716m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	1460094m	0.03783	ng
5) C15(101) #2	23.21	13742306m	0.03839	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7655.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0425\M7655.D\ECD2B.CH
 Acq On : 11-20-2014 07:22:12 PM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:52:51 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:52:42 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3356965	0.10000	ng
4) I C15(96) #2	20.52	18240605m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	3965185m	0.07821	ng
5) C15(101) #2	23.21	29399454m	0.07934	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7666.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0425\M7666.D\ECD2B.CH
 Acq On : 11-21-2014 03:32:21 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:53:28 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:53:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3616666	0.10000	ng
4) I C15(96) #2	20.51	19606354m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2187220m	0.03860	ng
5) C15(101) #2	23.21	17223201m	0.04171	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7443.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0421\M7443.D\ECD2B.CH
 Acq On : 04 Nov 2014 12:39 pm Operator: RR
 Sample : CD584PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2993064	100.00000	ng
10) I C16(161)	23.21	5884758	100.00000	ng
24) I C15(96) #2	20.51	15551042m	100.00000	ng
33) I C16(161) #2	26.79	35595294m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7095464m	334.12489	ng
Spiked Amount	400.0000	Recovery	=	83.53%
11) s C16(152)	20.48	10123172m	367.23836	ng
Spiked Amount	401.6000	Recovery	=	91.44%
27) s C13(34) #2	16.47	45104594m	384.33153	ng
Spiked Amount	400.0000	Recovery	=	96.08%
34) s C16(152) #2	23.62	61486709m	322.17401	ng
Spiked Amount	401.6000	Recovery	=	80.22%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7443.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0421\M7443.D\ECD2B.CH
 Acq On : 04 Nov 2014 12:39 pm Operator: RR
 Sample : CD584PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7444.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0421\M7444.D\ECD2B.CH
 Acq On : 11-4-2014 01:23:46 PM Operator: RR
 Sample : CD585LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2968719m	100.00000	ng	
10) I C16(161)	23.21	5326547m	100.00000	ng	
24) I C15(96) #2	20.51	15332474m	100.00000	ng	
33) I C16(161) #2	26.79	33734492m	100.00000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	6723969m	312.07050	ng	78%
Spiked Amount	400.0000	Recovery	=	78.02%	
11) s C16(152)	20.48	9773142m	398.18867	ng	99%
Spiked Amount	401.6000	Recovery	=	99.15%	
27) s C13(34) #2	16.47	44220394m	381.09369	ng	95%
Spiked Amount	400.0000	Recovery	=	95.27%	
34) s C16(152) #2	23.62	71479883	383.67859	ng	96%
Spiked Amount	401.6000	Recovery	=	95.54%	
Target Compounds					
2) C12(8)	10.21	475294	24.01835	ng	64%
3) C13(18)	12.13	620194m	24.91944	ng	66%
5) C13(28)	14.20	1050974m	24.83111	ng	66%
6) C14(52)	15.83	817894m	23.90124	ng	64%
7) C14(44)	16.70	1037322m	24.00071	ng	64%
8) C14(66)	18.59	1161267m	23.90648	ng	64%
9) C15(101)	19.73	1252237m	26.85861	ng	72%
12) C15(118)	22.39	1314535m	32.95130	ng	88%
13) C16(153)	23.44 TW	1228218m	32.81446	ng	88%
14) C15(105)	23.45 TW	1476394m	30.06028	ng	80%
15) C16(138)	24.54	1646013m	34.04068	ng	91%
16) C17(187)	25.29	1405128m	33.17321	ng	88%
17) C16(128)	25.62	1896328m	41.18000	ng	110%
18) C17(180)	27.16	1697932m	34.25103	ng	91%
19) C17(170)	27.96	1883299m	33.58574	ng	90%
20) C18(195)	29.04	1835547m	35.00659	ng	93%
21) C19(206)	30.30	1711103m	33.83966	ng	90%
22) C110(209)	30.90	1475784m	35.78901	ng	95%
25) C12(8) #2	13.11	2902885m	27.21871	ng	73%
26) C13(18) #2	14.99	3492468m	27.40676	ng	73%
28) C13(28) #2	17.76	6787451m	30.09176	ng	80%
29) C14(52) #2	19.14	4257973m	31.62067	ng	84%
30) C14(44) #2	19.96	7990254m	35.06639	ng	94%
31) C14(66) #2	22.36	7890882m	31.03418	ng	83%
32) C15(101) #2	23.24	5171580m	36.38440	ng	97%
35) C15(118) #2	26.35	7694198m	35.22260	ng	94%
36) C16(153) #2	26.93	7812001	33.87821	ng	90%
37) C15(105) #2	27.20	10226986m	33.33487	ng	89%
38) C16(138) #2	27.78	7151824m	34.74639	ng	93%
39) C17(187) #2	28.13	8354811m	36.20753	ng	97%

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7444.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0421\M7444.D\ECD2B.CH
 Acq On : 11-4-2014 01:23:46 PM Operator: RR
 Sample : CD585LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	11176239m	34.60911	ng	92%
41)	Cl7(180) #2	29.58	10057020m	34.90774	ng	93%
42)	Cl7(170) #2	30.21	10669117m	34.05548	ng	91%
43)	Cl8(195) #2	31.08	9999426m	34.88329	ng	93%
44)	Cl9(206) #2	32.18	8853224m	34.27727	ng	91%
45)	Cl10(209) #2	32.62	7309619m	36.25768	ng	97%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7445.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0421\M7445.D\ECD2B.CH
 Acq On : 11-4-2014 02:08:19 PM Operator: RR
 Sample : M8159-P(2) Inst : INST. M
 Misc : NBH14-0029 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:48:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:48:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3185597m	95.00000	ng
10) I C16(161)	23.21	6340705m	95.00000	ng
24) I C15(96) #2	20.52	12991991	95.00000	ng
33) I C16(161) #2	26.79	26845029m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6452176m	253.21931	ng
Spiked Amount	379.8670	Recovery	=	66.66%
11) s C16(152)	20.48	8606653m	262.41003	ng
Spiked Amount	381.3865	Recovery	=	68.80%
27) s C13(34) #2	16.48	37670233	364.93974	ng
Spiked Amount	379.8670	Recovery	=	96.07%
34) s C16(152) #2	23.62	44281614	294.05572	ng
Spiked Amount	381.3865	Recovery	=	77.10%
Target Compounds				
2) C12(8)	10.21	1755465m	95.09145	ng
3) C13(18)	12.13	3838710m	193.91017	ng
5) C13(28)	14.20	e 15025899m	BelowCal	ng
6) C14(52)	15.84	E 14467526m	BelowCal	ng
7) C14(44)	16.70	7702485m	206.65082	ng
8) C14(66)	18.62	9957478m	241.27479	ng
9) C15(101)	19.72	e 16578980m	457.70927	ng
12) C15(118)	22.40	e 20983692m	BelowCal	ng
13) C16(153)	23.44	E 22770148m	749.69135	ng
14) C15(105)	23.46	7543606m	144.73396	ng
15) C16(138)	24.54	e 23571139m	509.42813	ng
16) C17(187)	25.30	2993125m	58.90501	ng
17) C16(128)	25.63	5271040m	95.03336	ng
18) C17(180)	27.17	4761936m	80.18564	ng
19) C17(170)	27.97	3630139m	52.95458	ng
20) C18(195)	29.04	652018m	8.79566	ng
21) C19(206)	30.31	677511m	9.76064	ng
22) C110(209)	30.91	245634m	3.39767	ng
25) C12(8) #2	13.10	10465706	130.07847	ng
26) C13(18) #2	14.99	20635547	266.63032	ng
28) C13(28) #2	17.76	e 99124838	BelowCal	ng
29) C14(52) #2	19.15	E 82362723	BelowCal	ng
30) C14(44) #2	19.96	41679716	255.97207	ng
31) C14(66) #2	22.35	45063398m	239.33505	ng
32) C15(101) #2	23.23	E 109183393	696.73143	ng
35) C15(118) #2	26.34	E 114979727	764.57254	ng
36) C16(153) #2	26.94	e 94765566	521.56600	ng
37) C15(105) #2	27.20	40335858	157.98719	ng
38) C16(138) #2	27.78	e 75692477	378.77368	ng
39) C17(187) #2	28.14	13873175m	73.93491	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7445.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0421\M7445.D\ECD2B.CH
 Acq On : 11-4-2014 02:08:19 PM Operator: RR
 Sample : M8159-P(2) Inst : INST. M
 Misc : NBH14-0029 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:48:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:48:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	26739267m	100.81413	ng
41)	Cl7(180) #2	29.59	23810783m	99.78923	ng
42)	Cl7(170) #2	30.22	16315555m	62.82205	ng
43)	Cl8(195) #2	31.08	2842651m	11.09111	ng
44)	Cl9(206) #2	32.18	2654671m	11.65337	ng
45)	Cl10(209) #2	32.62	908235m	4.17216	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7446.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0421\M7446.D\ECD2B.CH
 Acq On : 11-4-2014 02:52:46 PM Operator: RR
 Sample : M8160-P(2) Inst : INST. M
 Misc : NBH14-0033 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:49 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3290035	95.00000	ng
10) I C16(161)	23.21	6897014	95.00000	ng
24) I C15(96) #2	20.51	13115245m	95.00000	ng
33) I C16(161) #2	26.79	29050514m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8403672	357.55917	ng
Spiked Amount	379.8670	Recovery	=	94.13%
11) s C16(152)	20.48	10749473	309.20712	ng
Spiked Amount	381.3865	Recovery	=	81.07%
27) s C13(34) #2	16.48	41172640m	413.40098	ng
Spiked Amount	379.8670	Recovery	=	108.83%
34) s C16(152) #2	23.62	51819251	314.67756	ng
Spiked Amount	381.3865	Recovery	=	82.51%
Target Compounds				
2) C12(8)	10.21	855882m	40.25274	ng
3) C13(18)	12.13	1642149	66.23053	ng
5) C13(28)	14.20	8197435m	212.44959	ng
6) C14(52)	15.83	5213753	185.10315	ng
7) C14(44)	16.70	3129579	70.04967	ng
8) C14(66)	18.61	4751899m	96.59006	ng
9) C15(101)	19.72	5935929	122.05071	ng
12) C15(118)	22.39	7897894m	169.41834	ng
13) C16(153)	23.43	6935821m	147.31053	ng
14) C15(105)	23.45	3840228m	61.52869	ng
15) C16(138)	24.53	8518484m	142.43186	ng
16) C17(187)	25.29	1023517	16.59319	ng
17) C16(128)	25.63	2358782	37.52353	ng
18) C17(180)	27.16	1535511m	22.09197	ng
19) C17(170)	27.96	1198608m	14.78110	ng
20) C18(195)	29.04	216346	1.61375	ng
21) C19(206)	30.30	211714m	1.86434	ng
22) C110(209)	30.90	152558m	1.28663	ng
25) C12(8) #2	13.10	3897802m	42.67312	ng
26) C13(18) #2	14.99	7668581m	78.45888	ng
28) C13(28) #2	17.76	37157452m	222.57306	ng
29) C14(52) #2	19.15	24552594m	274.10606	ng
30) C14(44) #2	19.95	14817011m	76.70927	ng
31) C14(66) #2	22.35	18618646m	87.80350	ng
32) C15(101) #2	23.22	16606909m	133.89741	ng
35) C15(118) #2	26.33	39953048	225.32395	ng
36) C16(153) #2	26.94	28465270	147.29518	ng
37) C15(105) #2	27.20	17767286	65.12665	ng
38) C16(138) #2	27.78	27703193	143.23819	ng
39) C17(187) #2	28.14	4067312m	18.35337	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7446.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0421\M7446.D\ECD2B.CH
 Acq On : 11-4-2014 02:52:46 PM Operator: RR
 Sample : M8160-P(2) Inst : INST. M
 Misc : NBH14-0033 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:49 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	10662444m	36.60395	ng
41)	Cl7(180) #2	29.58	6996764m	26.50466	ng
42)	Cl7(170) #2	30.21	5340837m	18.28362	ng
43)	Cl8(195) #2	31.08	847735m	2.09752	ng
44)	Cl9(206) #2	32.18	750236m	2.20165	ng
45)	Cl10(209) #2	32.62	559615m	1.73748	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7446.D MM0417C.M Fri Nov 21 10:58:15 2014 046776CFS

Signal #1 : I:\M\DATA\SM0421\M7447.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0421\M7447.D\ECD2B.CH
 Acq On : 11-4-2014 03:37:17 PM Operator: RR
 Sample : M8161-P(2) Inst : INST. M
 Misc : NBH14-0037 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:54 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2499625m	95.00000	ng
10) I C16(161)	23.21	4985421m	95.00000	ng
24) I C15(96) #2	20.52	10327615	95.00000	ng
33) I C16(161) #2	26.81	18134199m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	6918900m	413.23123	ng
Spiked Amount	379.8670	Recovery	=	108.78%
11) s C16(152)	20.49	8182208	329.23929	ng
Spiked Amount	381.3865	Recovery	=	86.33%
27) s C13(34) #2	16.48	33849222m	444.90166	ng
Spiked Amount	379.8670	Recovery	=	117.12%
34) s C16(152) #2	23.63	38040523	361.41349	ng
Spiked Amount	381.3865	Recovery	=	94.76%
Target Compounds				
2) C12(8)	10.21	e 6382535	BelowCal	ng
3) C13(18)	12.13	E 12674985	BelowCal	ng
5) C13(28)	14.20	E 82006758	BelowCal	ng
6) C14(52)	15.84	E 45673544	BelowCal	ng
7) C14(44)	16.71	E 26860242	BelowCal	ng
8) C14(66)	18.65	E 51376272	BelowCal	ng
9) C15(101)	19.73	E 36039592	BelowCal	ng
12) C15(118)	22.41	E 52578751	BelowCal	ng
13) C16(153)	23.45	E 60270169m	BelowCal	ng
14) C15(105)	23.47	E 24559012m	BelowCal	ng
15) C16(138)	24.55	E 73264399	BelowCal	ng
16) C17(187)	25.31	5531092	146.85843	ng
17) C16(128)	25.64	e 16697719m	490.71375	ng
18) C17(180)	27.18	11143275m	253.26620	ng
19) C17(170)	27.97	9247242m	180.83062	ng
20) C18(195)	29.05	1376839	26.30729	ng
21) C19(206)	30.31	1381050m	27.51059	ng
22) C110(209)	30.91	518005m	11.70342	ng
25) C12(8) #2	13.11	e 30940765	BelowCal	ng
26) C13(18) #2	15.00	E 59675059	BelowCal	ng
28) C13(28) #2	17.77	E 230245866	BelowCal	ng
29) C14(52) #2	19.15	E 222744379	BelowCal	ng
30) C14(44) #2	19.96	E 127928256	BelowCal	ng
31) C14(66) #2	22.36	E 160187042	BelowCal	ng
32) C15(101) #2	23.24	E 224871345	1398.83155	ng
35) C15(118) #2	26.34	E 242129926	BelowCal	ng
36) C16(153) #2	26.94	E 174371025	1325.62830	ng
37) C15(105) #2	27.21	e 126892642	643.57912	ng
38) C16(138) #2	27.79	E 222874221	1197.70360	ng
39) C17(187) #2	28.14	24039730	188.27391	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7447.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0421\M7447.D\ECD2B.CH
 Acq On : 11-4-2014 03:37:17 PM Operator: RR
 Sample : M8161-P(2) Inst : INST. M
 Misc : NBH14-0037 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:44:54 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	85004133	436.33294	ng
41)	Cl7(180) #2	29.59	53263756m	310.53522	ng
42)	Cl7(170) #2	30.22	37364822m	205.66865	ng
43)	Cl8(195) #2	31.09	5357547m	33.02713	ng
44)	Cl9(206) #2	32.19	4538186m	31.01736	ng
45)	Cl10(209) #2	32.63	1745932m	14.56948	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7448.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0421\M7448.D\ECD2B.CH
 Acq On : 11-4-2014 04:21:43 PM Operator: RR
 Sample : M8161DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0037 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:00 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2665543m	95.00000	ng
10) I C16(161)	23.21	5191740m	95.00000	ng
24) I C15(96) #2	20.52	9909362m	95.00000	ng
33) I C16(161) #2	26.81	21400555m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	6306274m	316.44029	ng
Spiked Amount	379.8670	Recovery	=	83.30%
11) s C16(152)	20.49	7058552m	262.90971	ng
Spiked Amount	381.3865	Recovery	=	68.94%
27) s C13(34) #2	16.48	29873756m	387.39552	ng
Spiked Amount	379.8670	Recovery	=	101.98%
34) s C16(152) #2	23.63	32154593	270.99200	ng
Spiked Amount	381.3865	Recovery	=	71.05%
Target Compounds				
2) C12(8)	10.21	e 6657274	BelowCal	ng
3) C13(18)	12.13	E 12039347	BelowCal	ng
5) C13(28)	14.20	E 80172076	BelowCal	ng
6) C14(52)	15.84	E 42680763	BelowCal	ng
7) C14(44)	16.71	E 25529291	BelowCal	ng
8) C14(66)	18.65	E 48183229	BelowCal	ng
9) C15(101)	19.73	E 33207147	BelowCal	ng
12) C15(118)	22.41	E 49652026	BelowCal	ng
13) C16(153)	23.44	E 57578669m	BelowCal	ng
14) C15(105)	23.47	e 19475632m	BelowCal	ng
15) C16(138)	24.55	E 66245417	BelowCal	ng
16) C17(187)	25.31	4702073m	118.01470	ng
17) C16(128)	25.64	e 15003151m	397.55253	ng
18) C17(180)	27.17	9638662m	207.58299	ng
19) C17(170)	27.97	8049587m	149.72195	ng
20) C18(195)	29.05	1263719m	22.98746	ng
21) C19(206)	30.31	1054598m	19.78531	ng
22) C110(209)	30.91	351495m	7.08365	ng
25) C12(8) #2	13.11	e 28830657	BelowCal	ng
26) C13(18) #2	15.00	e 53680720	BelowCal	ng
28) C13(28) #2	17.77	E 212200669	BelowCal	ng
29) C14(52) #2	19.15	E 198812700	BelowCal	ng
30) C14(44) #2	19.96	E 114590540	BelowCal	ng
31) C14(66) #2	22.36	E 143738260	BelowCal	ng
32) C15(101) #2	23.23	E 167222355	1170.17654	ng
35) C15(118) #2	26.34	E 215214421	2320.87915	ng
36) C16(153) #2	26.94	E 151812695	1005.54554	ng
37) C15(105) #2	27.21	e 114534704	510.50274	ng
38) C16(138) #2	27.78	E 194003998	960.10206	ng
39) C17(187) #2	28.14	20776051m	138.90351	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7448.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0421\M7448.D\ECD2B.CH
 Acq On : 11-4-2014 04:21:43 PM Operator: RR
 Sample : M8161DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0037 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:00 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:44:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	76282325	340.55767	ng
41)	Cl7(180) #2	29.59	46626599m	235.92538	ng
42)	Cl7(170) #2	30.22	35596331	167.97357	ng
43)	Cl8(195) #2	31.09	4382688m	22.58697	ng
44)	Cl9(206) #2	32.18	3697850m	21.14375	ng
45)	Cl10(209) #2	32.62	1481293m	10.07138	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7449.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0421\M7449.D\ECD2B.CH
 Acq On : 11-4-2014 05:06:29 PM Operator: RR
 Sample : M8162-P(2) Inst : INST. M
 Misc : NBH14-0041 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 16:55:42 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 16:55:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3141055	95.00000	ng
10) I C16(161)	23.21	6527371m	95.00000	ng
24) I C15(96) #2	20.52	13989067m	95.00000	ng
33) I C16(161) #2	26.79	31780139m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	5582001	213.03765	ng
Spiked Amount	379.8670	Recovery	=	56.08%
11) s C16(152)	20.48	7074878	202.64101	ng
Spiked Amount	381.3865	Recovery	=	53.13%
27) s C13(34) #2	16.48	29749303m	239.56627	ng
Spiked Amount	379.8670	Recovery	=	63.07%
34) s C16(152) #2	23.62	36489566	213.13422	ng
Spiked Amount	381.3865	Recovery	=	55.88%
Target Compounds				
2) C12(8)	10.21	898020	44.84675	ng
3) C13(18)	12.13	1652923	70.42287	ng
5) C13(28)	14.20	8367640m	231.49295	ng
6) C14(52)	15.83	5122638m	192.01232	ng
7) C14(44)	16.70	3133177m	73.84735	ng
8) C14(66)	18.60	4394018m	93.20108	ng
9) C15(101)	19.72	5903328	127.69191	ng
12) C15(118)	22.39	8325510m	191.74043	ng
13) C16(153)	23.43	6122659m	136.61663	ng
14) C15(105)	23.45	3627591m	61.40177	ng
15) C16(138)	24.53	7640092m	134.41276	ng
16) C17(187)	25.29	808931m	13.45162	ng
17) C16(128)	25.63	2022474m	33.86850	ng
18) C17(180)	27.16	1301666m	19.57698	ng
19) C17(170)	27.96	1001962m	12.85761	ng
20) C18(195)	29.04	183777m	1.29134	ng
21) C19(206)	30.30	159127m	1.21054	ng
22) C110(209)	30.90	53425m	BelowCal	ng
25) C12(8) #2	13.11	4480867m	46.34399	ng
26) C13(18) #2	14.99	8207747m	78.77011	ng
28) C13(28) #2	17.76	38470370m	214.66977	ng
29) C14(52) #2	19.15	26734363m	282.40733	ng
30) C14(44) #2	19.96	17282103	84.55504	ng
31) C14(66) #2	22.35	20482874m	90.78912	ng
32) C15(101) #2	23.23	16459337m	124.75508	ng
35) C15(118) #2	26.33	42026129	216.25534	ng
36) C16(153) #2	26.94	27864005	131.59175	ng
37) C15(105) #2	27.20	19340458	64.80154	ng
38) C16(138) #2	27.78	28973506	137.32202	ng
39) C17(187) #2	28.14	3902423m	15.77557	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7449.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0421\M7449.D\ECD2B.CH
 Acq On : 11-4-2014 05:06:29 PM Operator: RR
 Sample : M8162-P(2) Inst : INST. M
 Misc : NBH14-0041 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 16:55:42 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 16:55:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	10983537m	34.37166	ng
41)	Cl7(180) #2	29.58	7085480m	24.41769	ng
42)	Cl7(170) #2	30.21	5279079m	16.38828	ng
43)	Cl8(195) #2	31.08	748532m	1.43498	ng
44)	Cl9(206) #2	32.18	635358m	1.44408	ng
45)	Cl10(209) #2	32.62	268910m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7450.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0421\M7450.D\ECD2B.CH
 Acq On : 11-4-2014 05:50:54 PM Operator: RR
 Sample : M8349-P(2) Inst : INST. M
 Misc : NBH14-0181 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3295682m	95.00000	ng
10) I C16(161)	23.21	7367513	95.00000	ng
24) I C15(96) #2	20.52	14555472	95.00000	ng
33) I C16(161) #2	26.79	29185275m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7172016	279.82696	ng
Spiked Amount	379.8670	Recovery	=	73.66%
11) s C16(152)	20.48	9369302	243.24863	ng
Spiked Amount	381.3865	Recovery	=	63.78%
27) s C13(34) #2	16.48	34975948m	280.46936	ng
Spiked Amount	379.8670	Recovery	=	73.83%
34) s C16(152) #2	23.62	44286194	273.35379	ng
Spiked Amount	381.3865	Recovery	=	71.67%
Target Compounds				
2) C12(8)	10.21	1363501	68.35431	ng
3) C13(18)	12.13	1881135	77.40629	ng
5) C13(28)	14.20	6799119m	168.44385	ng
6) C14(52)	15.84	5504253	197.98572	ng
7) C14(44)	16.70	3517507	79.62802	ng
8) C14(66)	18.61	5060586m	103.45557	ng
9) C15(101)	19.72	7455599	157.16461	ng
12) C15(118)	22.39	10544424m	219.38612	ng
13) C16(153)	23.43	9469966m	192.88924	ng
14) C15(105)	23.45	5858055m	91.28664	ng
15) C16(138)	24.53	11097470m	176.70060	ng
16) C17(187)	25.29	1212913	18.68108	ng
17) C16(128)	25.63	2886928	43.21797	ng
18) C17(180)	27.16	1850118m	25.18169	ng
19) C17(170)	27.96	1423107m	16.61980	ng
20) C18(195)	29.04	268961	2.12942	ng
21) C19(206)	30.30	221814m	1.80334	ng
22) C110(209)	30.90	68457m	BelowCal	ng
25) C12(8) #2	13.11	6237246m	63.86582	ng
26) C13(18) #2	14.99	8769717m	81.20922	ng
28) C13(28) #2	17.76	42484153m	230.83805	ng
29) C14(52) #2	19.15	26491198m	263.35071	ng
30) C14(44) #2	19.96	16600647m	77.50339	ng
31) C14(66) #2	22.35	24546437m	105.84077	ng
32) C15(101) #2	23.23	21562013m	155.49785	ng
35) C15(118) #2	26.33	50124342m	284.54376	ng
36) C16(153) #2	26.94	34320716	177.03844	ng
37) C15(105) #2	27.20	24084559	87.88756	ng
38) C16(138) #2	27.78	37647673	189.51048	ng
39) C17(187) #2	28.14	4889020m	22.46563	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7450.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0421\M7450.D\ECD2B.CH
 Acq On : 11-4-2014 05:50:54 PM Operator: RR
 Sample : M8349-P(2) Inst : INST. M
 Misc : NBH14-0181 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	14028420	48.39408	ng
41)	Cl7(180) #2	29.59	9829178	37.63800	ng
42)	Cl7(170) #2	30.22	6391344m	22.03196	ng
43)	Cl8(195) #2	31.08	991935m	2.66301	ng
44)	Cl9(206) #2	32.18	660212m	1.78560	ng
45)	Cl10(209) #2	32.62	255930m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7451.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0421\M7451.D\ECD2B.CH
 Acq On : 11-4-2014 06:35:33 PM Operator: RR
 Sample : M8350-P(2) Inst : INST. M
 Misc : NBH14-0185 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3483908	95.00000	ng
10) I C16(161)	23.21	7614196	95.00000	ng
24) I C15(96) #2	20.52	14316221m	95.00000	ng
33) I C16(161) #2	26.79	32976949m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6932223	247.19653	ng
Spiked Amount	379.8670	Recovery	=	65.07%
11) s C16(152)	20.48	9105274	226.62090	ng
Spiked Amount	381.3865	Recovery	=	59.42%
27) s C13(34) #2	16.48	35932665	297.31301	ng
Spiked Amount	379.8670	Recovery	=	78.27%
34) s C16(152) #2	23.62	42870126	238.33979	ng
Spiked Amount	381.3865	Recovery	=	62.49%
Target Compounds				
2) C12(8)	10.21	1235603	57.34076	ng
3) C13(18)	12.13	1804108	69.12047	ng
5) C13(28)	14.20	6432794m	147.70530	ng
6) C14(52)	15.83	5577924	187.53633	ng
7) C14(44)	16.70	3472953	73.79495	ng
8) C14(66)	18.61	4922594m	94.24715	ng
9) C15(101)	19.72	6122489	118.55898	ng
12) C15(118)	22.39	9173454m	179.54757	ng
13) C16(153)	23.43	7064174m	135.00870	ng
14) C15(105)	23.45	4599925m	67.30819	ng
15) C16(138)	24.53	9105882m	137.56265	ng
16) C17(187)	25.29	1070765	15.59451	ng
17) C16(128)	25.62	2416673	34.72486	ng
18) C17(180)	27.16	1493717m	19.22611	ng
19) C17(170)	27.96	1186161m	13.07384	ng
20) C18(195)	29.04	206193m	1.18351	ng
21) C19(206)	30.30	213702m	1.59213	ng
22) C110(209)	30.90	66505m	BelowCal	ng
25) C12(8) #2	13.10	7612305	81.13818	ng
26) C13(18) #2	14.99	9636596	92.26849	ng
28) C13(28) #2	17.76	39255132	213.91253	ng
29) C14(52) #2	19.15	26086831m	263.79239	ng
30) C14(44) #2	19.96	17406500	83.09619	ng
31) C14(66) #2	22.35	20149052m	86.98918	ng
32) C15(101) #2	23.23	15385252m	114.25567	ng
35) C15(118) #2	26.33	43049115	213.35030	ng
36) C16(153) #2	26.93	29242603	133.11495	ng
37) C15(105) #2	27.20	19567109	63.16767	ng
38) C16(138) #2	27.78	29733162	135.89893	ng
39) C17(187) #2	28.14	4402641	17.38015	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7451.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0421\M7451.D\ECD2B.CH
 Acq On : 11-4-2014 06:35:33 PM Operator: RR
 Sample : M8350-P(2) Inst : INST. M
 Misc : NBH14-0185 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	11426504	34.46443	ng
41)	Cl7(180) #2	29.58	7024670m	23.25757	ng
42)	Cl7(170) #2	30.21	5471410m	16.36729	ng
43)	Cl8(195) #2	31.08	806515m	1.54136	ng
44)	Cl9(206) #2	32.18	588391m	1.16475	ng
45)	Cl10(209) #2	32.62	262837m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7452.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0421\M7452.D\ECD2B.CH
 Acq On : 11-4-2014 07:19:59 PM Operator: RR
 Sample : M8351-P(2) Inst : INST. M
 Misc : NBH14-0189 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:25 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3185828m	95.00000	ng
10) I C16(161)	23.21	7108818m	95.00000	ng
24) I C15(96) #2	20.52	14538542m	95.00000	ng
33) I C16(161) #2	26.79	32542506m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	5840350	221.77684	ng
Spiked Amount	379.8670	Recovery	=	58.38%
11) s C16(152)	20.48	7359532m	192.42253	ng
Spiked Amount	381.3865	Recovery	=	50.45%
27) s C13(34) #2	16.48	29698012m	227.78952	ng
Spiked Amount	379.8670	Recovery	=	59.97%
34) s C16(152) #2	23.62	37075378	211.63654	ng
Spiked Amount	381.3865	Recovery	=	55.49%
Target Compounds				
2) C12(8)	10.21	800790	38.69615	ng
3) C13(18)	12.13	1301539	52.50692	ng
5) C13(28)	14.20	6514500m	166.66601	ng
6) C14(52)	15.83	4056734	141.21940	ng
7) C14(44)	16.70	2459881	55.58347	ng
8) C14(66)	18.61	3473079m	70.69516	ng
9) C15(101)	19.72	4901834m	102.48549	ng
12) C15(118)	22.39	7606152m	156.85927	ng
13) C16(153)	23.43	5386326m	108.67208	ng
14) C15(105)	23.45	3397393m	52.02936	ng
15) C16(138)	24.54	6855712m	109.20170	ng
16) C17(187)	25.29	844198m	12.78820	ng
17) C16(128)	25.63	1743317m	26.56720	ng
18) C17(180)	27.16	1305287m	17.86708	ng
19) C17(170)	27.96	969866m	11.24031	ng
20) C18(195)	29.04	187236m	1.10911	ng
21) C19(206)	30.30	146043m	0.81383	ng
22) C110(209)	30.90	56491m	BelowCal	ng
25) C12(8) #2	13.10	3736203m	36.34534	ng
26) C13(18) #2	14.99	6210969m	54.71325	ng
28) C13(28) #2	17.76	31904397m	164.53005	ng
29) C14(52) #2	19.15	20127460m	184.04887	ng
30) C14(44) #2	19.96	12113522	55.19778	ng
31) C14(66) #2	22.35	18118172m	76.29845	ng
32) C15(101) #2	23.23	16503713m	120.50203	ng
35) C15(118) #2	26.33	35339037m	175.98635	ng
36) C16(153) #2	26.93	24984583	114.93054	ng
37) C15(105) #2	27.20	15533711	50.65083	ng
38) C16(138) #2	27.78	24242916m	113.45451	ng
39) C17(187) #2	28.14	4143228	16.45323	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7452.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0421\M7452.D\ECD2B.CH
 Acq On : 11-4-2014 07:19:59 PM Operator: RR
 Sample : M8351-P(2) Inst : INST. M
 Misc : NBH14-0189 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:25 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	9239824	27.92648	ng
41)	Cl7(180) #2	29.58	6627258m	22.16276	ng
42)	Cl7(170) #2	30.21	4606597m	13.75941	ng
43)	Cl8(195) #2	31.08	787710m	1.51177	ng
44)	Cl9(206) #2	32.18	581025m	1.16629	ng
45)	Cl10(209) #2	32.62	246474m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7452.D MM0417C.M Fri Nov 21 11:00:06 2014 046776CFS

Signal #1 : I:\M\DATA\SM0421\M7454.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0421\M7454.D\ECD2B.CH
 Acq On : 11-4-2014 08:49:03 PM Operator: RR
 Sample : M8352-P(2) Inst : INST. M
 Misc : NBH14-0193 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:29 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3201354m	95.00000	ng
10) I C16(161)	23.21	6558467m	95.00000	ng
24) I C15(96) #2	20.51	11988827m	95.00000	ng
33) I C16(161) #2	26.79	25218761	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	5616054	209.53286	ng
Spiked Amount	379.8670	Recovery	=	55.16%
11) s C16(152)	20.48	6825223	193.55325	ng
Spiked Amount	381.3865	Recovery	=	50.75%
27) s C13(34) #2	16.47	25813828m	243.35022	ng
Spiked Amount	379.8670	Recovery	=	64.06%
34) s C16(152) #2	23.62	30464113	223.14184	ng
Spiked Amount	381.3865	Recovery	=	58.51%
Target Compounds				
2) C12(8)	10.21	2825914	168.16500	ng
3) C13(18)	12.13	4319339	227.39477	ng
5) C13(28)	14.20	e 15990006m	BelowCal	ng
6) C14(52)	15.84	e 12851243	BelowCal	ng
7) C14(44)	16.70	9071474	254.25503	ng
8) C14(66)	18.62	e 12779619m	341.12356	ng
9) C15(101)	19.72	e 16447872	448.15568	ng
12) C15(118)	22.39	E 33205803	BelowCal	ng
13) C16(153)	23.43	e 15672246m	401.42266	ng
14) C15(105)	23.45	10881647m	217.72730	ng
15) C16(138)	24.54	e 26320497	565.19593	ng
16) C17(187)	25.29	2268602	42.24118	ng
17) C16(128)	25.63	5995655	105.15579	ng
18) C17(180)	27.16	3798884m	61.11506	ng
19) C17(170)	27.96	3038728m	42.43147	ng
20) C18(195)	29.04	509297	6.26305	ng
21) C19(206)	30.30	406951m	5.11178	ng
22) C110(209)	30.90	174404	1.85447	ng
25) C12(8) #2	13.10	12298390m	173.57554	ng
26) C13(18) #2	14.99	19060810m	267.00204	ng
28) C13(28) #2	17.76	e 91331386	BelowCal	ng
29) C14(52) #2	19.15	e 59907178	BelowCal	ng
30) C14(44) #2	19.96	40745332m	276.20385	ng
31) C14(66) #2	22.35	e 79258985	604.32528	ng
32) C15(101) #2	23.23	e 81738739	590.85471	ng
35) C15(118) #2	26.33	e 103345644	727.46671	ng
36) C16(153) #2	26.93	e 66869240	395.57358	ng
37) C15(105) #2	27.20	50274355	207.00410	ng
38) C16(138) #2	27.78	e 77168959	405.99623	ng
39) C17(187) #2	28.14	8676659m	48.65044	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7454.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0421\M7454.D\ECD2B.CH
 Acq On : 11-4-2014 08:49:03 PM Operator: RR
 Sample : M8352-P(2) Inst : INST. M
 Misc : NBH14-0193 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:29 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	27740305	111.18461	ng
41)	Cl7(180) #2	29.58	17860323m	79.90105	ng
42)	Cl7(170) #2	30.21	12511902m	51.23299	ng
43)	Cl8(195) #2	31.08	1896755m	7.50244	ng
44)	Cl9(206) #2	32.18	1215386m	5.10271	ng
45)	Cl10(209) #2	32.62	478481m	1.68893	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7455.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0421\M7455.D\ECD2B.CH
 Acq On : 11-4-2014 09:33:36 PM Operator: RR
 Sample : M8353-P(2) Inst : INST. M
 Misc : NBH14-0197 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:42 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3328997	95.00000	ng
10) I C16(161)	23.21	7301659	95.00000	ng
24) I C15(96) #2	20.52	13536567m	95.00000	ng
33) I C16(161) #2	26.79	28949874m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7698902	305.76513	ng
Spiked Amount	379.8670	Recovery	=	80.49%
11) s C16(152)	20.48	9527327	250.60511	ng
Spiked Amount	381.3865	Recovery	=	65.71%
27) s C13(34) #2	16.48	38878493m	359.79497	ng
Spiked Amount	379.8670	Recovery	=	94.72%
34) s C16(152) #2	23.62	47072557	290.39950	ng
Spiked Amount	381.3865	Recovery	=	76.14%
Target Compounds				
2) C12(8)	10.21	1124570	54.24756	ng
3) C13(18)	12.13	2056435	84.89306	ng
5) C13(28)	14.20	9269396m	245.35386	ng
6) C14(52)	15.84	e 6897400	265.19543	ng
7) C14(44)	16.70	3895065	88.24599	ng
8) C14(66)	18.60	5615872m	115.05116	ng
9) C15(101)	19.72	7436029	154.92349	ng
12) C15(118)	22.39	e 10921917m	231.19824	ng
13) C16(153)	23.43	9693394m	199.96494	ng
14) C15(105)	23.45	4698088m	72.15487	ng
15) C16(138)	24.53	10923273m	175.38359	ng
16) C17(187)	25.29	1309602m	20.57863	ng
17) C16(128)	25.63	2858603	43.17842	ng
18) C17(180)	27.16	2089198	28.98545	ng
19) C17(170)	27.96	1559699m	18.56236	ng
20) C18(195)	29.04	274821	2.24303	ng
21) C19(206)	30.30	277188m	2.61647	ng
22) C110(209)	30.90	110635m	0.40250	ng
25) C12(8) #2	13.11	5173935m	56.29878	ng
26) C13(18) #2	14.99	9793468m	100.30185	ng
28) C13(28) #2	17.76	49476661m	308.09502	ng
29) C14(52) #2	19.15	e 35978871	BelowCal	ng
30) C14(44) #2	19.96	19018092m	97.36039	ng
31) C14(66) #2	22.35	24763720m	115.68455	ng
32) C15(101) #2	23.23	20300182m	157.31246	ng
35) C15(118) #2	26.33	52903508m	303.78597	ng
36) C16(153) #2	26.94	39239914	204.11121	ng
37) C15(105) #2	27.20	22447891	82.60836	ng
38) C16(138) #2	27.78	37344084	189.51079	ng
39) C17(187) #2	28.14	5785987m	27.28981	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7455.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0421\M7455.D\ECD2B.CH
 Acq On : 11-4-2014 09:33:36 PM Operator: RR
 Sample : M8353-P(2) Inst : INST. M
 Misc : NBH14-0197 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:42 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	14266726m	49.64854	ng
41)	Cl7(180) #2	29.58	10028177m	38.74843	ng
42)	Cl7(170) #2	30.22	7060454m	24.68061	ng
43)	Cl8(195) #2	31.08	1157367m	3.36752	ng
44)	Cl9(206) #2	32.18	905927m	2.91139	ng
45)	Cl10(209) #2	32.62	332896m	0.43854	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7456.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0421\M7456.D\ECD2B.CH
 Acq On : 04 Nov 2014 10:17 pm Operator: RR
 Sample : M8354-P(2) Inst : INST. M
 Misc : NBH14-0199 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I C15(96)	17.40	2861519m	95.00000 ng
10) I C16(161)	23.23	5448341m	95.00000 ng
24) I C15(96) #2	20.52	8845590m	95.00000 ng
33) I C16(161) #2	26.81	16002002m	95.00000 ng
System Monitoring Compounds			
4) s C13(34)	13.41	7155088	345.21668 ng
Spiked Amount	379.8670	Recovery	= 90.88%
11) s C16(152)	20.50	8555784	312.03091 ng
Spiked Amount	381.3865	Recovery	= 81.81%
27) s C13(34) #2	16.48	28948847m	443.73847 ng
Spiked Amount	379.8670	Recovery	= 116.81%
34) s C16(152) #2	23.63	33363944	359.55580 ng
Spiked Amount	381.3865	Recovery	= 94.28%
Target Compounds			
2) C12(8)	10.22	e 4275477	387.57202 ng
3) C13(18)	12.13	E 11487507	BelowCal ng
5) C13(28)	14.21	E 87953485	BelowCal ng
6) C14(52)	15.85	E 36963150	BelowCal ng
7) C14(44)	16.71	E 28776160	BelowCal ng
8) C14(66)	18.64	E 84738048	BelowCal ng
9) C15(101)	19.73	E 83981745	BelowCal ng
12) C15(118)	22.42	E 159223622	BelowCal ng
13) C16(153)	23.45	E 66547804m	BelowCal ng
14) C15(105)	23.48	E 43202067m	BelowCal ng
15) C16(138)	24.56	E 148506427	BelowCal ng
16) C17(187)	25.31	9748753m	248.93038 ng
17) C16(128)	25.65	E 33477418	BelowCal ng
18) C17(180)	27.18	e 26316750	604.15043 ng
19) C17(170)	27.98	e 18804652	352.98143 ng
20) C18(195)	29.05	2716533	48.96975 ng
21) C19(206)	30.32	2536701m	47.35485 ng
22) C110(209)	30.92	842177m	18.19361 ng
25) C12(8) #2	13.11	17025782	454.45343 ng
26) C13(18) #2	15.00	e 46866995	BelowCal ng
28) C13(28) #2	17.77	E 207949984	BelowCal ng
29) C14(52) #2	19.15	E 152540811	BelowCal ng
30) C14(44) #2	19.96	E 114133419	BelowCal ng
31) C14(66) #2	22.36	E 227840140	BelowCal ng
32) C15(101) #2	23.24	E 343788789	2058.92685 ng
35) C15(118) #2	26.34	E 430049618	BelowCal ng
36) C16(153) #2	26.94	E 270497230	2170.71047 ng
37) C15(105) #2	27.21	E 236033341	1183.21471 ng
38) C16(138) #2	27.79	E 397397694	1937.76975 ng
39) C17(187) #2	28.14	37338378m	322.51673 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7456.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0421\M7456.D\ECD2B.CH
 Acq On : 04 Nov 2014 10:17 pm Operator: RR
 Sample : M8354-P(2) Inst : INST. M
 Misc : NBH14-0199 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	e 139925579	749.38699	ng
41)	Cl7(180) #2	29.59	e 104581264	625.71358	ng
42)	Cl7(170) #2	30.22	67053028	393.80981	ng
43)	Cl8(195) #2	31.09	9234037m	64.90211	ng
44)	Cl9(206) #2	32.19	6919068m	53.94366	ng
45)	Cl10(209) #2	32.63	2472817m	24.21352	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7457.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0421\M7457.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:02 pm Operator: RR
 Sample : M8364-P(2) Inst : INST. M
 Misc : NBH14-0233 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3704337	95.00000	ng
10) I C16(161)	23.21	8405026	95.00000	ng
24) I C15(96) #2	20.51	14038107m	95.00000	ng
33) I C16(161) #2	26.79	28873982m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8115585	282.51900	ng
Spiked Amount	379.8670	Recovery	=	74.37%
11) s C16(152)	20.48	10544072	239.44975	ng
Spiked Amount	381.3865	Recovery	=	62.78%
27) s C13(34) #2	16.48	36704852m	314.44299	ng
Spiked Amount	379.8670	Recovery	=	82.78%
34) s C16(152) #2	23.62	45376372	281.88406	ng
Spiked Amount	381.3865	Recovery	=	73.91%
Target Compounds				
2) C12(8)	10.21	1441553	63.73959	ng
3) C13(18)	12.13	1953266	70.58766	ng
5) C13(28)	14.20	e 10894015m	264.11964	ng
6) C14(52)	15.84	6171963	197.37390	ng
7) C14(44)	16.70	3743527	74.92642	ng
8) C14(66)	18.61	6171051m	113.42381	ng
9) C15(101)	19.72	8755766	165.19756	ng
12) C15(118)	22.39	e 14846903m	283.18566	ng
13) C16(153)	23.43	10700798m	190.84940	ng
14) C15(105)	23.45	7008578m	96.28658	ng
15) C16(138)	24.54	12765244m	178.30441	ng
16) C17(187)	25.29	1424434	19.30494	ng
17) C16(128)	25.62	3384150	44.45510	ng
18) C17(180)	27.16	2231894m	26.74809	ng
19) C17(170)	27.96	1762045m	18.18538	ng
20) C18(195)	29.04	299502	2.04184	ng
21) C19(206)	30.30	251047m	1.77867	ng
22) C110(209)	30.90	86575m	BelowCal	ng
25) C12(8) #2	13.10	6131265m	65.22452	ng
26) C13(18) #2	14.99	8576391m	82.51763	ng
28) C13(28) #2	17.76	48889886m	288.87057	ng
29) C14(52) #2	19.14	27665406m	295.52916	ng
30) C14(44) #2	19.95	16303513m	79.04713	ng
31) C14(66) #2	22.35	23238807m	103.72341	ng
32) C15(101) #2	23.22	22659318m	168.59786	ng
35) C15(118) #2	26.33	e 54814328m	316.26226	ng
36) C16(153) #2	26.93	37342177	194.75085	ng
37) C15(105) #2	27.20	25708437	94.76289	ng
38) C16(138) #2	27.78	39431270m	199.65045	ng
39) C17(187) #2	28.14	5229988m	24.49769	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7457.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0421\M7457.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:02 pm Operator: RR
 Sample : M8364-P(2) Inst : INST. M
 Misc : NBH14-0233 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	14554824m	50.81251	ng
41)	Cl7(180) #2	29.58	9510205m	36.78065	ng
42)	Cl7(170) #2	30.21	7227003m	25.36170	ng
43)	Cl8(195) #2	31.08	1053906m	2.95855	ng
44)	Cl9(206) #2	32.18	671130m	1.86639	ng
45)	Cl10(209) #2	32.62	244406m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7458.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0421\M7458.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:47 pm Operator: RR
 Sample : M8366-P(2) Inst : INST. M
 Misc : NBH14-0237 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2834857m	95.00000	ng
10) I C16(161)	23.20	5618364m	95.00000	ng
24) I C15(96) #2	20.52	12338344	95.00000	ng
33) I C16(161) #2	26.81	22909356m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7221947	355.98679	ng
Spiked Amount	379.8670	Recovery	=	93.71%
11) s C16(152)	20.49	8372003	292.98650	ng
Spiked Amount	381.3865	Recovery	=	76.82%
27) s C13(34) #2	16.48	36866173	382.05371	ng
Spiked Amount	379.8670	Recovery	=	100.58%
34) s C16(152) #2	23.63	40071137	309.39347	ng
Spiked Amount	381.3865	Recovery	=	81.12%
Target Compounds				
2) C12(8)	10.21	3499114	268.64769	ng
3) C13(18)	12.13	e 7661621	BelowCal	ng
5) C13(28)	14.20	E 75568694	BelowCal	ng
6) C14(52)	15.84	E 33269254	BelowCal	ng
7) C14(44)	16.71	e 15206519	BelowCal	ng
8) C14(66)	18.63	E 47004455	BelowCal	ng
9) C15(101)	19.72	E 38429406	BelowCal	ng
12) C15(118)	22.40	E 53501848	BelowCal	ng
13) C16(153)	23.44	E 27216830m	BelowCal	ng
14) C15(105)	23.47	e 17533709m	BelowCal	ng
15) C16(138)	24.55	E 55035415	BelowCal	ng
16) C17(187)	25.30	5448585	127.00979	ng
17) C16(128)	25.63	12162114m	275.68163	ng
18) C17(180)	27.17	9732502m	192.83139	ng
19) C17(170)	27.97	7456195m	127.20615	ng
20) C18(195)	29.05	1130908	18.72623	ng
21) C19(206)	30.31	1158815m	20.11147	ng
22) C110(209)	30.91	416691m	7.90742	ng
25) C12(8) #2	13.11	17826594	272.22145	ng
26) C13(18) #2	15.00	e 37261408	BelowCal	ng
28) C13(28) #2	17.77	E 218004996	BelowCal	ng
29) C14(52) #2	19.15	E 161958924	BelowCal	ng
30) C14(44) #2	19.96	e 73476313	BelowCal	ng
31) C14(66) #2	22.36	E 166349986	BelowCal	ng
32) C15(101) #2	23.23	E 219991846	1216.73164	ng
35) C15(118) #2	26.34	E 247030138	2651.95676	ng
36) C16(153) #2	26.94	E 185663764	1135.80675	ng
37) C15(105) #2	27.21	e 94525058	405.32789	ng
38) C16(138) #2	27.78	E 179117895	859.59063	ng
39) C17(187) #2	28.14	24561778m	153.12021	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7458.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0421\M7458.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:47 pm Operator: RR
 Sample : M8366-P(2) Inst : INST. M
 Misc : NBH14-0237 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:45:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	65435979	277.58687	ng
41)	Cl7(180) #2	29.59	50874254m	240.14284	ng
42)	Cl7(170) #2	30.22	35615427	157.48779	ng
43)	Cl8(195) #2	31.09	5378821m	26.05157	ng
44)	Cl9(206) #2	32.18	4359117m	23.37890	ng
45)	Cl10(209) #2	32.63	1543702m	9.76603	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7459.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0421\M7459.D\ECD2B.CH
 Acq On : 05 Nov 2014 12:31 am Operator: RR
 Sample : M8367-P(2) Inst : INST. M
 Misc : NBH14-0241 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:03 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3094537	95.00000	ng
10) I C16(161)	23.21	3809975m	95.00000	ng
24) I C15(96) #2	20.52	11765464	95.00000	ng
33) I C16(161) #2	26.79	22157415m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	4778290	178.53802	ng
Spiked Amount	379.8670	Recovery	=	47.00%
11) s C16(152)	20.49	5394440	275.74899	ng
Spiked Amount	381.3865	Recovery	=	72.30%
27) s C13(34) #2	16.48	21411418m	197.74295	ng
Spiked Amount	379.8670	Recovery	=	52.06%
34) s C16(152) #2	23.63	23521319	198.45002	ng
Spiked Amount	381.3865	Recovery	=	52.03%
Target Compounds				
2) C12(8)	10.21	1463971	79.70652	ng
3) C13(18)	12.13	2631750	124.23338	ng
5) C13(28)	14.20	E 29397764	BelowCal	ng
6) C14(52)	15.84	e 10989886	BelowCal	ng
7) C14(44)	16.70	5433209	140.25605	ng
8) C14(66)	18.62	8967071m	218.80206	ng
9) C15(101)	19.72	e 13440174	349.09206	ng
12) C15(118)	22.40	E 27536148	BelowCal	ng
13) C16(153)	23.43	e 11355528m	544.48605	ng
14) C15(105)	23.47	4120190m	129.47242	ng
15) C16(138)	24.54	e 16509673m	630.71906	ng
16) C17(187)	25.30	2396362	79.95822	ng
17) C16(128)	25.64	3935248m	119.86279	ng
18) C17(180)	27.16	3372532m	95.20962	ng
19) C17(170)	27.97	2614152m	63.96261	ng
20) C18(195)	29.04	456947m	10.51780	ng
21) C19(206)	30.31	457011m	11.12188	ng
22) C110(209)	30.90	203935m	5.27842	ng
25) C12(8) #2	13.10	6192159m	80.21559	ng
26) C13(18) #2	15.00	11798179m	147.39585	ng
28) C13(28) #2	17.76	e 76969013	BelowCal	ng
29) C14(52) #2	19.15	e 53090450	BelowCal	ng
30) C14(44) #2	19.96	23125296m	141.79833	ng
31) C14(66) #2	22.35	39074554m	227.24629	ng
32) C15(101) #2	23.23	e 78454640	580.45553	ng
35) C15(118) #2	26.34	e 81392048	643.97940	ng
36) C16(153) #2	26.94	e 66052850	443.17144	ng
37) C15(105) #2	27.21	30019978	142.95627	ng
38) C16(138) #2	27.78	50672506	316.25260	ng
39) C17(187) #2	28.14	12023135	77.68905	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7459.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0421\M7459.D\ECD2B.CH
 Acq On : 05 Nov 2014 12:31 am Operator: RR
 Sample : M8367-P(2) Inst : INST. M
 Misc : NBH14-0241 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:03 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:45:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	21476837m	98.13172	ng
41)	Cl7(180) #2	29.59	16407066m	83.51144	ng
42)	Cl7(170) #2	30.22	12472222m	58.17489	ng
43)	Cl8(195) #2	31.08	2167400m	10.14785	ng
44)	Cl9(206) #2	32.18	1986004m	10.45968	ng
45)	Cl10(209) #2	32.62	729896m	4.02334	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7460.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0421\M7460.D\ECD2B.CH
 Acq On : 11-5-2014 01:16:01 AM Operator: RR
 Sample : M8380-P(2) Inst : INST. M
 Misc : NBH14-0302 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:09 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3278270m	95.00000	ng
10) I C16(161)	23.21	5098002m	95.00000	ng
24) I C15(96) #2	20.52	13050134m	95.00000	ng
33) I C16(161) #2	26.79	29376293	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8064394	336.26724	ng
Spiked Amount	379.8670	Recovery	=	88.52%
11) s C16(152)	20.49	9377575	379.50061	ng
Spiked Amount	381.3865	Recovery	=	99.51%
27) s C13(34) #2	16.48	40910129m	412.43634	ng
Spiked Amount	379.8670	Recovery	=	108.57%
34) s C16(152) #2	23.63	45546452	278.56929	ng
Spiked Amount	381.3865	Recovery	=	73.04%
Target Compounds				
2) C12(8)	10.21	1945436m	103.69472	ng
3) C13(18)	12.13	3670647	175.74763	ng
5) C13(28)	14.20	E 31938930	BelowCal	ng
6) C14(52)	15.84	E 13501951	BelowCal	ng
7) C14(44)	16.70	7828116	203.41699	ng
8) C14(66)	18.62	10061563m	235.58313	ng
9) C15(101)	19.72	e 15423539	391.27141	ng
12) C15(118)	22.40	E 32829540	BelowCal	ng
13) C16(153)	23.44	E 29306357	BelowCal	ng
14) C15(105)	23.47	6576705m	159.33831	ng
15) C16(138)	24.54	e 24940601	763.84521	ng
16) C17(187)	25.30	2343810m	57.27033	ng
17) C16(128)	25.63	5460300m	124.64901	ng
18) C17(180)	27.16	4002940m	84.00295	ng
19) C17(170)	27.97	3136128m	57.08023	ng
20) C18(195)	29.04	531661	8.94237	ng
21) C19(206)	30.30	471463m	8.26832	ng
22) C110(209)	30.90	146982m	2.13880	ng
25) C12(8) #2	13.10	9141841m	110.71796	ng
26) C13(18) #2	14.99	17928516m	218.68266	ng
28) C13(28) #2	17.76	e 99013141	BelowCal	ng
29) C14(52) #2	19.15	E 70712483	BelowCal	ng
30) C14(44) #2	19.96	38511701	230.05892	ng
31) C14(66) #2	22.36	46517802m	247.33151	ng
32) C15(101) #2	23.23	E 102606112	661.42250	ng
35) C15(118) #2	26.34	E 111325027	666.62225	ng
36) C16(153) #2	26.94	e 80293714	407.41678	ng
37) C15(105) #2	27.21	49158009	175.20603	ng
38) C16(138) #2	27.78	e 80343833	369.04987	ng
39) C17(187) #2	28.14	11799582m	57.12030	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7460.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0421\M7460.D\ECD2B.CH
 Acq On : 11-5-2014 01:16:01 AM Operator: RR
 Sample : M8380-P(2) Inst : INST. M
 Misc : NBH14-0302 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:09 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	30672972	105.61992	ng
41)	Cl7(180) #2	29.59	20763703m	79.74446	ng
42)	Cl7(170) #2	30.22	16687149	58.70967	ng
43)	Cl8(195) #2	31.09	2370542m	8.14469	ng
44)	Cl9(206) #2	32.18	2056947m	7.92722	ng
45)	Cl10(209) #2	32.62	641496m	2.16782	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7461.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0421\M7461.D\ECD2B.CH
 Acq On : 11-5-2014 02:00:31 AM Operator: RR
 Sample : M8381-P(2) Inst : INST. M
 Misc : NBH14-0306 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:15 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3056162m	95.00000	ng
10) I C16(161)	23.20	6753049m	95.00000	ng
24) I C15(96) #2	20.52	10687678m	95.00000	ng
33) I C16(161) #2	26.82	21667901m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	7668740	347.20289	ng
Spiked Amount	379.8670	Recovery	=	91.40%
11) s C16(152)	20.49	8232317	231.67688	ng
Spiked Amount	381.3865	Recovery	=	60.75%
27) s C13(34) #2	16.48	33509336m	412.54037	ng
Spiked Amount	379.8670	Recovery	=	108.60%
34) s C16(152) #2	23.63	35361145	291.32664	ng
Spiked Amount	381.3865	Recovery	=	76.39%
Target Compounds				
2) C12(8)	10.21	e 4344392	345.46686	ng
3) C13(18)	12.13	e 6853520	BelowCal	ng
5) C13(28)	14.20	E 87888897	BelowCal	ng
6) C14(52)	15.84	E 28583065	BelowCal	ng
7) C14(44)	16.71	e 14297787	BelowCal	ng
8) C14(66)	18.62	E 50170075	BelowCal	ng
9) C15(101)	19.73	E 36798836	BelowCal	ng
12) C15(118)	22.41	E 81395303	BelowCal	ng
13) C16(153)	23.44	E 25715516m	862.56093	ng
14) C15(105)	23.48	e 16953652m	409.46957	ng
15) C16(138)	24.55	E 52826087	BelowCal	ng
16) C17(187)	25.31	5743031m	110.31719	ng
17) C16(128)	25.64	11908400	216.71473	ng
18) C17(180)	27.17	9620342m	156.79796	ng
19) C17(170)	27.97	7597540m	107.05438	ng
20) C18(195)	29.05	1275154	17.46705	ng
21) C19(206)	30.31	1467486m	21.26544	ng
22) C110(209)	30.91	446796m	6.88737	ng
25) C12(8) #2	13.11	18048728m	347.28912	ng
26) C13(18) #2	14.99	e 29875823	BelowCal	ng
28) C13(28) #2	17.77	E 227387762	BelowCal	ng
29) C14(52) #2	19.15	E 125561774	BelowCal	ng
30) C14(44) #2	19.96	e 61927420	BelowCal	ng
31) C14(66) #2	22.36	E 177556474	BelowCal	ng
32) C15(101) #2	23.23	E 204986374	1280.81011	ng
35) C15(118) #2	26.34	E 244112525	2936.13540	ng
36) C16(153) #2	26.94	E 177614521	1147.63802	ng
37) C15(105) #2	27.21	e 97556157	438.21813	ng
38) C16(138) #2	27.78	E 153322193	796.88121	ng
39) C17(187) #2	28.14	24562056m	161.69430	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7461.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0421\M7461.D\ECD2B.CH
 Acq On : 11-5-2014 02:00:31 AM Operator: RR
 Sample : M8381-P(2) Inst : INST. M
 Misc : NBH14-0306 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:15 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	58362636	262.80363	ng
41)	Cl7(180) #2	29.59	45880600m	229.73615	ng
42)	Cl7(170) #2	30.22	31763350m	148.87659	ng
43)	Cl8(195) #2	31.09	5087263m	26.05114	ng
44)	Cl9(206) #2	32.19	4260484m	24.18968	ng
45)	Cl10(209) #2	32.63	1452178m	9.70557	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7462.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0421\M7462.D\ECD2B.CH
 Acq On : 11-5-2014 02:44:54 AM Operator: RR
 Sample : M8382-P(2) Inst : INST. M
 Misc : NBH14-0310 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:21 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:13 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3439824m	95.00000	ng
10) I C16(161)	23.21	5221302m	95.00000	ng
24) I C15(96) #2	20.52	12234942m	95.00000	ng
33) I C16(161) #2	26.79	27466020	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7810561	297.56149	ng
Spiked Amount	379.8670	Recovery	=	78.33%
11) s C16(152)	20.49	9442010	371.39130	ng
Spiked Amount	381.3865	Recovery	=	97.38%
27) s C13(34) #2	16.48	35357361m	363.12296	ng
Spiked Amount	379.8670	Recovery	=	95.59%
34) s C16(152) #2	23.62	40362003	265.74492	ng
Spiked Amount	381.3865	Recovery	=	69.68%
Target Compounds				
2) C12(8)	10.21	1572746m	76.64321	ng
3) C13(18)	12.13	2907189m	123.29212	ng
5) C13(28)	14.20	E 29972412	BelowCal	ng
6) C14(52)	15.84	e 11014651	BelowCal	ng
7) C14(44)	16.70	5617787	128.92562	ng
8) C14(66)	18.61	9970521m	218.88321	ng
9) C15(101)	19.72	e 14537873	336.25964	ng
12) C15(118)	22.40	E 31182594	BelowCal	ng
13) C16(153)	23.44	e 14447086m	488.88318	ng
14) C15(105)	23.47	5745799m	132.11917	ng
15) C16(138)	24.54	e 20846267	561.16337	ng
16) C17(187)	25.30	2359060m	56.21667	ng
17) C16(128)	25.63	4774395m	105.18301	ng
18) C17(180)	27.16	3856286m	78.79815	ng
19) C17(170)	27.97	2864152m	50.64054	ng
20) C18(195)	29.04	567507	9.38557	ng
21) C19(206)	30.31	474288m	8.09779	ng
22) C110(209)	30.91	203761m	3.43400	ng
25) C12(8) #2	13.11	6553339m	81.80212	ng
26) C13(18) #2	14.99	12512736m	150.94099	ng
28) C13(28) #2	17.76	e 82955434	BelowCal	ng
29) C14(52) #2	19.15	e 50959237	BelowCal	ng
30) C14(44) #2	19.96	24723741m	146.36998	ng
31) C14(66) #2	22.35	41952927m	236.06479	ng
32) C15(101) #2	23.23	e 81929493	582.41604	ng
35) C15(118) #2	26.34	e 94825535	601.39597	ng
36) C16(153) #2	26.94	e 68757196	374.02610	ng
37) C15(105) #2	27.20	38209549	146.66395	ng
38) C16(138) #2	27.78	61649755	311.14185	ng
39) C17(187) #2	28.14	10471074	54.12069	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7462.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0421\M7462.D\ECD2B.CH
 Acq On : 11-5-2014 02:44:54 AM Operator: RR
 Sample : M8382-P(2) Inst : INST. M
 Misc : NBH14-0310 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:46:21 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:13 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	24086302	88.84797	ng
41)	Cl7(180) #2	29.59	18759001m	77.07144	ng
42)	Cl7(170) #2	30.22	13423745m	50.46189	ng
43)	Cl8(195) #2	31.08	2116486m	7.71872	ng
44)	Cl9(206) #2	32.18	1951910m	8.06238	ng
45)	Cl10(209) #2	32.62	809279m	3.44259	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7463.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0421\M7463.D\ECD2B.CH
 Acq On : 11-5-2014 03:29:24 AM Operator: RR
 Sample : M8392-P(2) Inst : INST. M
 Misc : NBH14-0121 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:51:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:51:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3308988	95.00000	ng
10) I C16(161)	23.22	6603478	95.00000	ng
24) I C15(96) #2	20.52	16023186m	95.00000	ng
33) I C16(161) #2	26.79	37707599	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7082085	273.30838	ng
Spiked Amount	379.8670	Recovery	=	71.95%
11) s C16(152)	20.48	9849908	293.34086	ng
Spiked Amount	381.3865	Recovery	=	76.91%
27) s C13(34) #2	16.48	38511655m	280.55499	ng
Spiked Amount	379.8670	Recovery	=	73.86%
34) s C16(152) #2	23.62	53874486	259.22026	ng
Spiked Amount	381.3865	Recovery	=	67.97%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	127470m	0.44306	ng
6) C14(52)	15.83	159142m	BelowCal	ng
7) C14(44)	16.69	50622m	BelowCal	ng
8) C14(66)	18.61	155957m	0.39213	ng
9) C15(101)	19.71	165294m	1.50784	ng
12) C15(118)	22.39	222401m	1.69975	ng
13) C16(153)	23.43	149994m	2.12028	ng
14) C15(105)	23.45	81290m	BelowCal	ng
15) C16(138)	24.53	248290m	1.83293	ng
16) C17(187)	25.29	32174m	BelowCal	ng
17) C16(128)	25.64	38019m	BelowCal	ng
18) C17(180)	27.15	36568	BelowCal	ng
19) C17(170)	27.96	31291	BelowCal	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	561919m	0.43448	ng
29) C14(52) #2	19.15	608920m	1.86566	ng
30) C14(44) #2	19.96	276810m	BelowCal	ng
31) C14(66) #2	22.35	634808m	0.42467	ng
32) C15(101) #2	23.23	782635m	1.35349	ng
35) C15(118) #2	26.33	1199051m	1.59230	ng
36) C16(153) #2	26.93	1323548m	1.51982	ng
37) C15(105) #2	27.20	386301m	BelowCal	ng
38) C16(138) #2	27.78	758367m	2.26218	ng
39) C17(187) #2	28.14	177562m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7463.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0421\M7463.D\ECD2B.CH
 Acq On : 11-5-2014 03:29:24 AM Operator: RR
 Sample : M8392-P(2) Inst : INST. M
 Misc : NBH14-0121 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:51:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:51:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	318294m	BelowCal	ng
41)	Cl7(180) #2	29.59	189815m	BelowCal	ng
42)	Cl7(170) #2	30.22	108244m	BelowCal	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7465.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0421\M7465.D\ECD2B.CH
 Acq On : 11-5-2014 04:58:24 AM Operator: RR
 Sample : M8392MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0121 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:52:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:52:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3574207	100.00000	ng
10) I C16(161)	23.22	7201616	100.00000	ng
24) I C15(96) #2	20.51	16039992m	100.00000	ng
33) I C16(161) #2	26.79	37822212	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7632332m	286.77335	ng
Spiked Amount	400.0000	Recovery	=	71.69%
11) s C16(152)	20.48	10445747	298.67157	ng
Spiked Amount	401.6000	Recovery	=	74.37%
27) s C13(34) #2	16.47	38803587m	297.87982	ng
Spiked Amount	400.0000	Recovery	=	74.47%
34) s C16(152) #2	23.62	67081255	329.60981	ng
Spiked Amount	401.6000	Recovery	=	82.07%
Target Compounds				
2) C12(8)	10.21	885684	40.06998	ng
3) C13(18)	12.13	1122045	40.64676	ng
5) C13(28)	14.21	2184545	45.39473	ng
6) C14(52)	15.84	1564136	42.36176	ng
7) C14(44)	16.70	2037858m	41.78231	ng
8) C14(66)	18.60	2341926	42.52099	ng
9) C15(101)	19.74	2208815m	40.50667	ng
12) C15(118)	22.39	2570945	49.49761	ng
13) C16(153)	23.44 TW	2276674m	45.64596	ng
14) C15(105)	23.45 TW	2696400m	41.90162	ng
15) C16(138)	24.54	3049013	47.80305	ng
16) C17(187)	25.29	2499652	44.62899	ng
17) C16(128)	25.62	2142459m	34.17759	ng
18) C17(180)	27.16	2947003	44.64846	ng
19) C17(170)	27.96	3247076	43.40546	ng
20) C18(195)	29.04	3102697	44.25486	ng
21) C19(206)	30.31	2840782m	41.94535	ng
22) C110(209)	30.90	2412941m	43.72856	ng
25) C12(8) #2	13.10	4579916m	42.97888	ng
26) C13(18) #2	14.99	5155446m	41.38934	ng
28) C13(28) #2	17.76	10519678m	46.05199	ng
29) C14(52) #2	19.15	6256490m	46.03502	ng
30) C14(44) #2	19.96	12356141m	53.39941	ng
31) C14(66) #2	22.36	11980124m	46.37736	ng
32) C15(101) #2	23.24	6912784m	47.45734	ng
35) C15(118) #2	26.35	11399238m	47.82382	ng
36) C16(153) #2	26.94	11471308	45.61241	ng
37) C15(105) #2	27.20	15649867m	46.05318	ng
38) C16(138) #2	27.78	12126701m	52.59547	ng
39) C17(187) #2	28.14	11978835	46.96644	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7465.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0421\M7465.D\ECD2B.CH
 Acq On : 11-5-2014 04:58:24 AM Operator: RR
 Sample : M8392MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0121 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:52:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:52:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	16722663	46.74349	ng
41)	Cl7(180) #2	29.59	15022017	46.94641	ng
42)	Cl7(170) #2	30.21	16080609m	46.12031	ng
43)	Cl8(195) #2	31.08	14895360m	46.58714	ng
44)	Cl9(206) #2	32.18	13344535m	46.29176	ng
45)	Cl10(209) #2	32.62	10933215m	48.72398	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7466.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0421\M7466.D\ECD2B.CH
 Acq On : 11-5-2014 05:42:50 AM Operator: RR
 Sample : M8392MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0121 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:52:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:52:24 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3485171	100.00000	ng
10) I C16(161)	23.21	7104913	100.00000	ng
24) I C15(96) #2	20.51	16367493m	100.00000	ng
33) I C16(161) #2	26.79	38590284	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8568094	353.61955	ng
Spiked Amount	400.0000	Recovery	=	88.40%
11) s C16(152)	20.48	12127140	363.70358	ng
Spiked Amount	401.6000	Recovery	=	90.56%
27) s C13(34) #2	16.48	46098569m	367.94797	ng
Spiked Amount	400.0000	Recovery	=	91.99%
34) s C16(152) #2	23.62	82649957	387.16624	ng
Spiked Amount	401.6000	Recovery	=	96.41%
Target Compounds				
2) C12(8)	10.21	949552	44.67707	ng
3) C13(18)	12.13	1211378	45.79661	ng
5) C13(28)	14.21	2409858	51.95237	ng
6) C14(52)	15.84	1731446	49.24791	ng
7) C14(44)	16.70	2311495m	49.43431	ng
8) C14(66)	18.60	2618697	49.43440	ng
9) C15(101)	19.74	2571868m	48.96606	ng
12) C15(118)	22.39	2937856	58.10203	ng
13) C16(153)	23.44 TW	2463719m	50.27625	ng
14) C15(105)	23.45 TW	3329622m	53.60310	ng
15) C16(138)	24.54	3566545	57.34599	ng
16) C17(187)	25.29	2982149	54.70122	ng
17) C16(128)	25.62	3363759m	55.38561	ng
18) C17(180)	27.16	3575960	55.51920	ng
19) C17(170)	27.96	3929228	53.76087	ng
20) C18(195)	29.04	3783841m	55.21067	ng
21) C19(206)	30.31	3501687m	52.88345	ng
22) C110(209)	30.90	2950340m	54.77527	ng
25) C12(8) #2	13.10	5105016m	47.37393	ng
26) C13(18) #2	14.99	6454635m	52.51368	ng
28) C13(28) #2	17.76	11671008m	50.39417	ng
29) C14(52) #2	19.14	7481072m	54.80384	ng
30) C14(44) #2	19.96	14709133m	63.03690	ng
31) C14(66) #2	22.36	14351127m	55.07904	ng
32) C15(101) #2	23.24	7348860m	49.57234	ng
35) C15(118) #2	26.35	14273481m	59.63127	ng
36) C16(153) #2	26.93	14183669	56.10196	ng
37) C15(105) #2	27.20	19700805m	57.09503	ng
38) C16(138) #2	27.78	14818628m	62.86173	ng
39) C17(187) #2	28.14	14921080	57.80661	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7466.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0421\M7466.D\ECD2B.CH
 Acq On : 11-5-2014 05:42:50 AM Operator: RR
 Sample : M8392MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0121 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:52:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:52:24 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	21074598	58.04725	ng
41)	Cl7(180) #2	29.59	19129878	58.82324	ng
42)	Cl7(170) #2	30.21	20497452m	57.76748	ng
43)	Cl8(195) #2	31.08	19120231m	58.68677	ng
44)	Cl9(206) #2	32.18	16849597m	57.33969	ng
45)	Cl10(209) #2	32.62	13694106m	59.98286	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7467.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0421\M7467.D\ECD2B.CH
 Acq On : 11-5-2014 06:27:24 AM Operator: RR
 Sample : M8393-P(2) Inst : INST. M
 Misc : NBH14-0125 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3060362m	95.00000	ng
10) I C16(161)	23.22	5292647m	95.00000	ng
24) I C15(96) #2	20.52	13893912m	95.00000	ng
33) I C16(161) #2	26.79	32098463m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6886330	293.64141	ng
Spiked Amount	379.8670	Recovery	=	77.30%
11) s C16(152)	20.49	8527574	321.90648	ng
Spiked Amount	381.3865	Recovery	=	84.40%
27) s C13(34) #2	16.48	36758287m	319.64326	ng
Spiked Amount	379.8670	Recovery	=	84.15%
34) s C16(152) #2	23.63	44456501	252.17504	ng
Spiked Amount	381.3865	Recovery	=	66.12%
Target Compounds				
2) C12(8)	10.21	1348917	73.49039	ng
3) C13(18)	12.13	2123055	97.31097	ng
5) C13(28)	14.20	E 25923195	BelowCal	ng
6) C14(52)	15.84	e 7742755	364.34130	ng
7) C14(44)	16.70	3688575m	91.23319	ng
8) C14(66)	18.61	6352860m	146.04747	ng
9) C15(101)	19.72	10647186	261.21628	ng
12) C15(118)	22.40	E 22181871	BelowCal	ng
13) C16(153)	23.43	9532799m	283.60109	ng
14) C15(105)	23.46	4070059m	87.94258	ng
15) C16(138)	24.53	13087923m	308.38828	ng
16) C17(187)	25.30	2006244	46.59951	ng
17) C16(128)	25.63	3000093m	63.49461	ng
18) C17(180)	27.16	2505064m	49.44513	ng
19) C17(170)	27.96	1921231m	32.80876	ng
20) C18(195)	29.04	383921m	5.74870	ng
21) C19(206)	30.30	311007m	4.77103	ng
22) C110(209)	30.90	126081m	1.50275	ng
25) C12(8) #2	13.11	7032073m	76.80010	ng
26) C13(18) #2	14.99	10990690m	111.28372	ng
28) C13(28) #2	17.76	e 88968626	BelowCal	ng
29) C14(52) #2	19.15	e 44260301	BelowCal	ng
30) C14(44) #2	19.95	18545823m	92.03099	ng
31) C14(66) #2	22.36	36082257m	170.87761	ng
32) C15(101) #2	23.23	38607734m	276.98183	ng
35) C15(118) #2	26.34	e 77156909	406.39391	ng
36) C16(153) #2	26.94	58553963	274.15981	ng
37) C15(105) #2	27.20	26951445	89.41210	ng
38) C16(138) #2	27.78	41918290	191.65871	ng
39) C17(187) #2	28.14	9308767	40.67118	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7467.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0421\M7467.D\ECD2B.CH
 Acq On : 11-5-2014 06:27:24 AM Operator: RR
 Sample : M8393-P(2) Inst : INST. M
 Misc : NBH14-0125 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:46:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	18293128m	57.59246	ng
41)	Cl7(180) #2	29.59	13111045m	45.89641	ng
42)	Cl7(170) #2	30.22	11017075m	35.19932	ng
43)	Cl8(195) #2	31.08	1634244m	4.65238	ng
44)	Cl9(206) #2	32.18	1393362m	4.48271	ng
45)	Cl10(209) #2	32.62	553515m	1.39976	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7468.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0421\M7468.D\ECD2B.CH
 Acq On : 11-5-2014 07:11:50 AM Operator: RR
 Sample : M8394-P(2) Inst : INST. M
 Misc : NBH14-0129 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:39 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:47:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3473344	95.00000	ng
10) I C16(161)	23.22	6195680m	95.00000	ng
24) I C15(96) #2	20.51	13846314m	95.00000	ng
33) I C16(161) #2	26.79	31921206m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8587798	339.00807	ng
Spiked Amount	379.8670	Recovery	=	89.24%
11) s C16(152)	20.48	10528725	343.64067	ng
Spiked Amount	381.3865	Recovery	=	90.10%
27) s C13(34) #2	16.48	41963224m	390.61574	ng
Spiked Amount	379.8670	Recovery	=	102.83%
34) s C16(152) #2	23.62	50364371	282.86314	ng
Spiked Amount	381.3865	Recovery	=	74.17%
Target Compounds				
2) C12(8)	10.21	1248021	58.19885	ng
3) C13(18)	12.13	1984924	77.51467	ng
5) C13(28)	14.20	E 19276776	BelowCal	ng
6) C14(52)	15.84	e 6516849	230.92264	ng
7) C14(44)	16.70	3635610	77.91690	ng
8) C14(66)	18.61	6098891m	120.41521	ng
9) C15(101)	19.72	8680793	176.09692	ng
12) C15(118)	22.40	e 17884713	581.51950	ng
13) C16(153)	23.43	7826043m	189.18468	ng
14) C15(105)	23.46	4806553m	88.80974	ng
15) C16(138)	24.53	11137236m	214.71336	ng
16) C17(187)	25.29	1246924m	23.40578	ng
17) C16(128)	25.63	2749259m	49.18388	ng
18) C17(180)	27.16	2062415	34.07644	ng
19) C17(170)	27.97	1481435m	20.98715	ng
20) C18(195)	29.04	270300m	2.84425	ng
21) C19(206)	30.30	231279m	2.55091	ng
22) C110(209)	30.90	92457m	0.37342	ng
25) C12(8) #2	13.11	5602924m	59.95178	ng
26) C13(18) #2	14.99	8991707m	88.52597	ng
28) C13(28) #2	17.76	e 57385396	367.77175	ng
29) C14(52) #2	19.15	e 33648985	426.91390	ng
30) C14(44) #2	19.96	17096281m	84.50395	ng
31) C14(66) #2	22.36	25048617m	114.27590	ng
32) C15(101) #2	23.23	21582295m	163.14947	ng
35) C15(118) #2	26.33	e 61997452	323.98366	ng
36) C16(153) #2	26.94	41230081	194.50054	ng
37) C15(105) #2	27.20	26643978	88.88684	ng
38) C16(138) #2	27.78	36995541	171.72978	ng
39) C17(187) #2	28.14	5747631m	24.33736	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7468.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0421\M7468.D\ECD2B.CH
 Acq On : 11-5-2014 07:11:50 AM Operator: RR
 Sample : M8394-P(2) Inst : INST. M
 Misc : NBH14-0129 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:39 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:47:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	14498628m	45.65579	ng
41)	Cl7(180) #2	29.59	10079980m	35.20787	ng
42)	Cl7(170) #2	30.22	7723560m	24.47561	ng
43)	Cl8(195) #2	31.08	1042031m	2.50494	ng
44)	Cl9(206) #2	32.18	888105m	2.46086	ng
45)	Cl10(209) #2	32.62	375467m	0.48260	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7469.D\ECD1A.CH Vial: 29
 Signal #2 : I:\M\DATA\SM0421\M7469.D\ECD2B.CH
 Acq On : 11-5-2014 07:56:22 AM Operator: RR
 Sample : M8406-P(2) Inst : INST. M
 Misc : NBH14-0177 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:47:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3345950m	95.00000	ng
10) I C16(161)	23.21	6287578m	95.00000	ng
24) I C15(96) #2	20.51	13417130m	95.00000	ng
33) I C16(161) #2	26.79	31195851	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8382033	346.26815	ng
Spiked Amount	379.8670	Recovery	=	91.16%
11) s C16(152)	20.48	9894976	312.84493	ng
Spiked Amount	381.3865	Recovery	=	82.03%
27) s C13(34) #2	16.48	43218681m	431.66791	ng
Spiked Amount	379.8670	Recovery	=	113.64%
34) s C16(152) #2	23.62	47570385	274.53693	ng
Spiked Amount	381.3865	Recovery	=	71.98%
Target Compounds				
2) C12(8)	10.21	2569842	141.25871	ng
3) C13(18)	12.13	3020377	133.65436	ng
5) C13(28)	14.20	E 31395907	BelowCal	ng
6) C14(52)	15.84	e 9615373	486.44208	ng
7) C14(44)	16.70	4887653m	113.40968	ng
8) C14(66)	18.61	7616145m	162.78539	ng
9) C15(101)	19.72	10918606	241.37515	ng
12) C15(118)	22.40	E 26325145	BelowCal	ng
13) C16(153)	23.43	e 11797798m	297.69242	ng
14) C15(105)	23.45	8855818m	177.20687	ng
15) C16(138)	24.53	e 15454416m	306.22342	ng
16) C17(187)	25.30	2268816	44.20256	ng
17) C16(128)	25.63	3727860m	66.55225	ng
18) C17(180)	27.16	3088550m	51.41298	ng
19) C17(170)	27.97	2296087m	33.01721	ng
20) C18(195)	29.04	471314	5.99207	ng
21) C19(206)	30.30	563973m	7.97938	ng
22) C110(209)	30.90	161370m	1.73672	ng
25) C12(8) #2	13.10	12387367m	152.78519	ng
26) C13(18) #2	14.99	14904844m	166.97266	ng
28) C13(28) #2	17.76	e 102685149	BelowCal	ng
29) C14(52) #2	19.15	e 51115443	BelowCal	ng
30) C14(44) #2	19.96	24669514m	131.43596	ng
31) C14(66) #2	22.36	38430737m	191.14485	ng
32) C15(101) #2	23.23	32055953m	241.92991	ng
35) C15(118) #2	26.34	e 99624756	552.17587	ng
36) C16(153) #2	26.94	e 69333001	332.95632	ng
37) C15(105) #2	27.20	39049263	132.38126	ng
38) C16(138) #2	27.78	55508467	253.48938	ng
39) C17(187) #2	28.14	10787472	48.90716	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7469.D\ECD1A.CH Vial: 29
 Signal #2 : I:\M\DATA\SM0421\M7469.D\ECD2B.CH
 Acq On : 11-5-2014 07:56:22 AM Operator: RR
 Sample : M8406-P(2) Inst : INST. M
 Misc : NBH14-0177 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 09:47:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 09:47:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	22117793m	71.82571	ng
41)	Cl7(180) #2	29.59	17374448m	62.84607	ng
42)	Cl7(170) #2	30.22	11305045m	37.21893	ng
43)	Cl8(195) #2	31.08	2141728m	6.73393	ng
44)	Cl9(206) #2	32.18	1896265	6.73294	ng
45)	Cl10(209) #2	32.62	557730m	1.50582	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7469.D MM0417C.M Fri Nov 21 11:00:36 2014 046776CFS

Signal #1 : I:\M\DATA\SM0425\M7645.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0425\M7645.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:57 am Operator: RR
 Sample : M8159-P-D(4) Inst : INST. M
 Misc : NBH14-0029 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:36 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2313055	95.00000	ng
10) I C16(161)	23.21	5474608m	95.00000	ng
24) I C15(96) #2	20.52	15575129m	95.00000	ng
33) I C16(161) #2	26.79	37002683m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	961922m	28.23046	ng
6) C14(52)	15.84	985232	38.96243	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	19.72	1124341m	29.74001	ng
12) C15(118)	22.40	1319701m	30.49425	ng
13) C16(153)	23.43	1046859m	25.61148	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.54	1465877m	27.65422	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	7424309m	30.98401	ng
29) C14(52) #2	19.15	7060950m	51.59777	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	23.23	5289288m	34.82525	ng
35) C15(118) #2	26.34	8880431m	35.40431	ng
36) C16(153) #2	26.94	8109381	30.25194	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	6190698	25.93952	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7645.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0425\M7645.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:57 am Operator: RR
 Sample : M8159-P-D(4) Inst : INST. M
 Misc : NBH14-0029 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:36 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7647.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0425\M7647.D\ECD2B.CH
 Acq On : 11-20-2014 01:26:14 PM Operator: RR
 Sample : M8161-P-D(4) Inst : INST. M
 Misc : NBH14-0037 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2168056	95.00000	ng
10) I C16(161)	23.21	5402030	95.00000	ng
24) I C15(96) #2	20.52	14491668m	95.00000	ng
33) I C16(161) #2	26.79	34633190m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.20	318471m	20.56187	ng
3) C13(18)	12.13	839072	49.30823	ng
5) C13(28)	14.20	2595230m	90.22464	ng
6) C14(52)	15.84	2695615	137.20682	ng
7) C14(44)	16.70	1612734	53.33303	ng
8) C14(66)	18.63	1414790m	40.21371	ng
9) C15(101)	19.72	2238745	66.62550	ng
12) C15(118)	22.39	3208099m	81.84819	ng
13) C16(153)	23.43	2402687m	61.96418	ng
14) C15(105)	23.45	1458192m	27.72813	ng
15) C16(138)	24.54	3711277m	76.08340	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	25.63	1044975m	20.75536	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	2701508m	25.41086	ng
26) C13(18) #2	14.99	5702963m	49.76764	ng
28) C13(28) #2	17.77	18397059m	89.30950	ng
29) C14(52) #2	19.15	19765313m	180.68227	ng
30) C14(44) #2	19.96	11433397m	52.05036	ng
31) C14(66) #2	22.35	8620030m	34.48591	ng
32) C15(101) #2	23.23	9374796m	68.87221	ng
35) C15(118) #2	26.34	19692167m	89.38835	ng
36) C16(153) #2	26.94	14946379m	63.20634	ng
37) C15(105) #2	27.21	10083077	30.34921	ng
38) C16(138) #2	27.78	17825709m	79.52145	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7647.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0425\M7647.D\ECD2B.CH
 Acq On : 11-20-2014 01:26:14 PM Operator: RR
 Sample : M8161-P-D(4) Inst : INST. M
 Misc : NBH14-0037 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	7256279m	20.11558	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7648.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0425\M7648.D\ECD2B.CH
 Acq On : 11-20-2014 02:10:38 PM Operator: RR
 Sample : M8161DUP-P-D(4) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0037 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:51 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2516683	95.00000	ng
10) I C16(161)	23.22	6017147	95.00000	ng
24) I C15(96) #2	20.52	14784349m	95.00000	ng
33) I C16(161) #2	26.80	39026184	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	428862	24.58483	ng
3) C13(18)	12.13	856377	42.44090	ng
5) C13(28)	14.20	2655551m	78.45553	ng
6) C14(52)	15.84	2697330	114.92746	ng
7) C14(44)	16.71	1639248	46.02943	ng
8) C14(66)	18.64	1593874m	38.90849	ng
9) C15(101)	19.72	2187570	55.41053	ng
12) C15(118)	22.40	2843466	63.82887	ng
13) C16(153)	23.44 TW	1979909m	45.21559	ng
14) C15(105)	23.45 TW	1516508m	25.68360	ng
15) C16(138)	24.54	3520181m	64.12831	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	25.63	1001573m	17.74102	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	2393353m	21.65842	ng
26) C13(18) #2	15.00	5036392m	42.08887	ng
28) C13(28) #2	17.77	16219548	76.20206	ng
29) C14(52) #2	19.15	16915865m	146.17430	ng
30) C14(44) #2	19.96	10449239	46.24330	ng
31) C14(66) #2	22.36	9118259m	35.85932	ng
32) C15(101) #2	23.23	7956046m	56.96848	ng
35) C15(118) #2	26.34	16331535	64.63096	ng
36) C16(153) #2	26.94	12503136	45.98322	ng
37) C15(105) #2	27.21	8199966	21.43028	ng
38) C16(138) #2	27.78	14809920	59.02759	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7648.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0425\M7648.D\ECD2B.CH
 Acq On : 11-20-2014 02:10:38 PM Operator: RR
 Sample : M8161DUP-P-D(4) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0037 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 14:22:51 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	5955812m	14.11595	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7650.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0425\M7650.D\ECD2B.CH
 Acq On : 11-20-2014 03:39:36 PM Operator: RR
 Sample : M8393-P-D(4) Inst : INST. M
 Misc : NBH14-0125 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:01:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2746676m	95.00000	ng
10) I C16(161)	23.22	6510245m	95.00000	ng
24) I C15(96) #2	20.52	15423925m	95.00000	ng
33) I C16(161) #2	26.79	35308658m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	869658m	20.80068	ng
6) C14(52)	15.84	599762	16.65034	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.40	1035088m	18.98521	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.77	5763484m	23.74502	ng
29) C14(52) #2	19.15	3296136m	22.38262	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.34	5388038m	21.17442	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7650.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0425\M7650.D\ECD2B.CH
 Acq On : 11-20-2014 03:39:36 PM Operator: RR
 Sample : M8393-P-D(4) Inst : INST. M
 Misc : NBH14-0125 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:19 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:01:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7651.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0425\M7651.D\ECD2B.CH
 Acq On : 11-20-2014 04:24:08 PM Operator: RR
 Sample : M8394-P-D(4) Inst : INST. M
 Misc : NBH14-0129 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2692233m	95.00000	ng
10) I C16(161)	23.22	6153614	95.00000	ng
24) I C15(96) #2	20.52	15718693m	95.00000	ng
33) I C16(161) #2	26.79	37075496m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	622909m	14.48944	ng
6) C14(52)	15.84	456613m	11.53302	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.40	665150m	11.92261	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.77	4007893m	15.49059	ng
29) C14(52) #2	19.15	2562171m	16.38834	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.34	4405371m	15.68903	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7651.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0425\M7651.D\ECD2B.CH
 Acq On : 11-20-2014 04:24:08 PM Operator: RR
 Sample : M8394-P-D(4) Inst : INST. M
 Misc : NBH14-0129 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7652.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0425\M7652.D\ECD2B.CH
 Acq On : 11-20-2014 05:08:30 PM Operator: RR
 Sample : M8406-P-D(4) Inst : INST. M
 Misc : NBH14-0177 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:27 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2642895m	95.00000	ng
10) I C16(161)	23.22	6151539	95.00000	ng
24) I C15(96) #2	20.52	15043268m	95.00000	ng
33) I C16(161) #2	26.79	35872645	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	1087213m	27.89202	ng
6) C14(52)	15.84	671858	20.44247	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.40	1260391m	25.40293	ng
13) C16(153)	23.44	960657m	20.68215	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1098491m	17.58692	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.77	6609602m	28.35407	ng
29) C14(52) #2	19.15	3968873m	28.37065	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.34	6784761m	27.11688	ng
36) C16(153) #2	26.94	5398847	19.55364	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	4050061	17.26060	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7652.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0425\M7652.D\ECD2B.CH
 Acq On : 11-20-2014 05:08:30 PM Operator: RR
 Sample : M8406-P-D(4) Inst : INST. M
 Misc : NBH14-0177 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:27 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7653.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0425\M7653.D\ECD2B.CH
 Acq On : 11-20-2014 05:52:59 PM Operator: RR
 Sample : M8352-P-D(4) Inst : INST. M
 Misc : NBH14-0193 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2817234	95.00000	ng
10) I C16(161)	23.22	6921232m	95.00000	ng
24) I C15(96) #2	20.52	14683120m	95.00000	ng
33) I C16(161) #2	26.79	36858918m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	1153217m	27.73934	ng
6) C14(52)	15.83	940288m	28.94640	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	18.61	837784m	16.54882	ng
9) C15(101)	19.72	1234686	26.59475	ng
12) C15(118)	22.40	1608067m	29.26393	ng
13) C16(153)	23.43	1330040m	25.74498	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.54	1763748m	26.19005	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.77	6889891m	30.45886	ng
29) C14(52) #2	19.15	5171814m	39.08542	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	22.36	3931708m	14.25826	ng
32) C15(101) #2	23.23	4223378m	28.93723	ng
35) C15(118) #2	26.34	8311658m	33.04055	ng
36) C16(153) #2	26.94	5983159	21.39798	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	6453264	27.17331	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7653.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0425\M7653.D\ECD2B.CH
 Acq On : 11-20-2014 05:52:59 PM Operator: RR
 Sample : M8352-P-D(4) Inst : INST. M
 Misc : NBH14-0193 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7654.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0425\M7654.D\ECD2B.CH
 Acq On : 11-20-2014 06:37:36 PM Operator: RR
 Sample : M8353-P-D(4) Inst : INST. M
 Misc : NBH14-0197 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:35 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2570630	95.00000	ng
10) I C16(161)	23.22	5952392	95.00000	ng
24) I C15(96) #2	20.52	14819030m	95.00000	ng
33) I C16(161) #2	26.79	35557684	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	558944m	13.46365	ng
6) C14(52)	15.84	490875	13.76851	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.40	689447	12.99226	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	3479502m	14.09652	ng
29) C14(52) #2	19.15	2896845m	20.22124	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.34	3934966m	14.36543	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7654.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0425\M7654.D\ECD2B.CH
 Acq On : 11-20-2014 06:37:36 PM Operator: RR
 Sample : M8353-P-D(4) Inst : INST. M
 Misc : NBH14-0197 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:35 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7656.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0425\M7656.D\ECD2B.CH
 Acq On : 11-20-2014 08:06:42 PM Operator: RR
 Sample : M8354-P-D(4) Inst : INST. M
 Misc : NBH14-0199 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:39 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:35 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2497935m	95.00000	ng
10) I C16(161)	23.21	6183577m	95.00000	ng
24) I C15(96) #2	20.52	14599012m	95.00000	ng
33) I C16(161) #2	26.79	35229930m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	372657m	20.95282	ng
3) C13(18)	12.13	906208m	45.73435	ng
5) C13(28)	14.20	2907848m	87.47004	ng
6) C14(52)	15.84	2470099m	104.51886	ng
7) C14(44)	16.70	1914915m	55.14232	ng
8) C14(66)	18.63	2674668m	69.30903	ng
9) C15(101)	19.72	5038504	138.14155	ng
12) C15(118)	22.39	6497382m	153.68348	ng
13) C16(153)	23.43	3642481m	83.23267	ng
14) C15(105)	23.45	3117891m	55.17941	ng
15) C16(138)	24.54	7244040m	134.53975	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	25.63	1959711m	34.67168	ng
18) C17(180)	27.16	1403131m	22.55575	ng
19) C17(170)	27.96	1039383m	14.24055	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	1822962m	16.04315	ng
26) C13(18) #2	14.99	5288781m	45.21480	ng
28) C13(28) #2	17.76	18890533m	91.19036	ng
29) C14(52) #2	19.15	15420821m	133.08317	ng
30) C14(44) #2	19.96	11452889m	51.73347	ng
31) C14(66) #2	22.36	15088575m	62.40969	ng
32) C15(101) #2	23.23	19988109m	144.28882	ng
35) C15(118) #2	26.34	36064277m	165.45836	ng
36) C16(153) #2	26.94	23370269m	98.92631	ng
37) C15(105) #2	27.21	18729003	56.51994	ng
38) C16(138) #2	27.78	32704561	139.67245	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7656.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0425\M7656.D\ECD2B.CH
 Acq On : 11-20-2014 08:06:42 PM Operator: RR
 Sample : M8354-P-D(4) Inst : INST. M
 Misc : NBH14-0199 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:39 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:35 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	11711782m	32.99748	ng
41)	Cl7(180) #2	29.59	7992202m	24.87340	ng
42)	Cl7(170) #2	30.22	5346669m	14.85292	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7656.D MM0417C.M Fri Nov 21 11:02:34 2014 046776CFS

Signal #1 : I:\M\DATA\SM0425\M7657.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0425\M7657.D\ECD2B.CH
 Acq On : 11-20-2014 08:51:23 PM Operator: RR
 Sample : M8364-P-D(4) Inst : INST. M
 Misc : NBH14-0233 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:43 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2831047	95.00000	ng
10) I C16(161)	23.22	6507986m	95.00000	ng
24) I C15(96) #2	20.52	15721114m	95.00000	ng
33) I C16(161) #2	26.79	37602748	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	572927m	12.35704	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.39	762111m	13.16897	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	3665549m	13.98341	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.33	4446397m	15.59571	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7657.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0425\M7657.D\ECD2B.CH
 Acq On : 11-20-2014 08:51:23 PM Operator: RR
 Sample : M8364-P-D(4) Inst : INST. M
 Misc : NBH14-0233 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:43 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7658.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0425\M7658.D\ECD2B.CH
 Acq On : 11-20-2014 09:35:53 PM Operator: RR
 Sample : M8366-P-D(4) Inst : INST. M
 Misc : NBH14-0237 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2943294	95.00000	ng
10) I C16(161)	23.21	6892389	95.00000	ng
24) I C15(96) #2	20.52	15100282m	95.00000	ng
33) I C16(161) #2	26.79	35045531m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	12.13	648159	25.25913	ng
5) C13(28)	14.20	2898269m	72.69949	ng
6) C14(52)	15.84	2472123	86.35539	ng
7) C14(44)	16.70	1167478	26.37614	ng
8) C14(66)	18.61	1651950m	34.04379	ng
9) C15(101)	19.71	2896100	63.26911	ng
12) C15(118)	22.39	3680633m	72.90732	ng
13) C16(153)	23.43	3035276m	61.32331	ng
14) C15(105)	23.46	1260250m	17.84922	ng
15) C16(138)	24.53	3960515	62.91529	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	14.99	3360551m	25.30287	ng
28) C13(28) #2	17.76	15835118m	72.56660	ng
29) C14(52) #2	19.15	13567678m	110.45262	ng
30) C14(44) #2	19.96	6379799m	26.54431	ng
31) C14(66) #2	22.35	8507954m	32.52302	ng
32) C15(101) #2	23.23	9103205m	64.06912	ng
35) C15(118) #2	26.34	18294648m	81.69101	ng
36) C16(153) #2	26.94	14996411m	62.64186	ng
37) C15(105) #2	27.20	6662973m	19.22168	ng
38) C16(138) #2	27.78	13777136	61.11420	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7658.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0425\M7658.D\ECD2B.CH
 Acq On : 11-20-2014 09:35:53 PM Operator: RR
 Sample : M8366-P-D(4) Inst : INST. M
 Misc : NBH14-0237 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7659.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0425\M7659.D\ECD2B.CH
 Acq On : 20 Nov 2014 10:20 pm Operator: RR
 Sample : M8367-P-D(4) Inst : INST. M
 Misc : NBH14-0241 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:51 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2759456m	95.00000	ng
10) I C16(161)	23.21	6301646m	95.00000	ng
24) I C15(96) #2	20.52	15155810m	95.00000	ng
33) I C16(161) #2	26.79	36447075m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	1050763m	25.59389	ng
6) C14(52)	15.84	838415m	25.73211	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	19.71	999794m	21.62557	ng
12) C15(118)	22.39	1314925m	25.93269	ng
13) C16(153)	23.43	1169794m	24.82424	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1261485m	20.01916	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	6316535m	26.76540	ng
29) C14(52) #2	19.15	4978575m	36.18848	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	23.23	3822361m	24.89971	ng
35) C15(118) #2	26.34	6989385m	27.54554	ng
36) C16(153) #2	26.94	6044451m	21.94620	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	4519614m	19.03875	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7659.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0425\M7659.D\ECD2B.CH
 Acq On : 20 Nov 2014 10:20 pm Operator: RR
 Sample : M8367-P-D(4) Inst : INST. M
 Misc : NBH14-0241 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:51 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7660.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0425\M7660.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:05 pm Operator: RR
 Sample : M8380-P-D(4) Inst : INST. M
 Misc : NBH14-0302 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:55 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2986236	95.00000	ng
10) I C16(161)	23.21	6866828m	95.00000	ng
24) I C15(96) #2	20.52	14586460m	95.00000	ng
33) I C16(161) #2	26.79	33530640m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	1291955m	29.49488	ng
6) C14(52)	15.83	1009876m	29.42201	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	19.72	1234541	24.96528	ng
12) C15(118)	22.39	1705233m	31.52135	ng
13) C16(153)	23.43	1404095m	27.48112	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1670043m	24.87463	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	6442897m	28.51814	ng
29) C14(52) #2	19.15	5404460m	41.32713	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	23.23	3542800m	23.83436	ng
35) C15(118) #2	26.34	7582130m	33.14264	ng
36) C16(153) #2	26.94	5925235m	23.64060	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5550120m	25.65684	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7660.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0425\M7660.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:05 pm Operator: RR
 Sample : M8380-P-D(4) Inst : INST. M
 Misc : NBH14-0302 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:55 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7661.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0425\M7661.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:49 pm Operator: RR
 Sample : M8381-P-D(4) Inst : INST. M
 Misc : NBH14-0306 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:59 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2818250	95.00000	ng
10) I C16(161)	23.22	6434027	95.00000	ng
24) I C15(96) #2	20.52	15651763m	95.00000	ng
33) I C16(161) #2	26.79	36533344m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	337521	15.96128	ng
3) C13(18)	12.13	555260	22.01214	ng
5) C13(28)	14.20	3064804m	81.11394	ng
6) C14(52)	15.84	1979881	70.15383	ng
7) C14(44)	16.70	1000157	23.21349	ng
8) C14(66)	18.61	1903384m	41.76530	ng
9) C15(101)	19.71	2548138m	57.79417	ng
12) C15(118)	22.40	3839394m	82.27841	ng
13) C16(153)	23.43	2696921m	58.23466	ng
14) C15(105)	23.46	1291743m	19.86855	ng
15) C16(138)	24.53	3423980m	57.97754	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	1680936m	13.41140	ng
26) C13(18) #2	14.99	3039880m	21.34808	ng
28) C13(28) #2	17.76	18372878m	82.00759	ng
29) C14(52) #2	19.15	11745637m	90.12472	ng
30) C14(44) #2	19.96	6008902m	23.91514	ng
31) C14(66) #2	22.36	12022750m	45.40497	ng
32) C15(101) #2	23.23	8956665m	60.71793	ng
35) C15(118) #2	26.34	20327819	87.37451	ng
36) C16(153) #2	26.94	15557954m	62.32387	ng
37) C15(105) #2	27.20	7786109	21.76243	ng
38) C16(138) #2	27.78	12775734m	54.45296	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7661.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0425\M7661.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:49 pm Operator: RR
 Sample : M8381-P-D(4) Inst : INST. M
 Misc : NBH14-0306 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:21:59 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7662.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0425\M7662.D\ECD2B.CH
 Acq On : 21 Nov 2014 12:34 am Operator: RR
 Sample : M8382-P-D(4) Inst : INST. M
 Misc : NBH14-0310 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:22:03 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2889062	95.00000	ng
10) I C16(161)	23.22	6611448	95.00000	ng
24) I C15(96) #2	20.52	15432279m	95.00000	ng
33) I C16(161) #2	26.79	37848966	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	1187077m	27.85546	ng
6) C14(52)	15.83	804163m	23.00916	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	19.72	999837m	20.56712	ng
12) C15(118)	22.39	1334992m	24.98632	ng
13) C16(153)	23.43	1029948m	20.62846	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1396743m	21.26768	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	6320459m	26.25913	ng
29) C14(52) #2	19.15	4447308m	31.30226	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	23.23	3736544m	23.74772	ng
35) C15(118) #2	26.33	7364887m	28.00433	ng
36) C16(153) #2	26.94	5848748m	20.18197	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5125108	20.86144	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7662.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0425\M7662.D\ECD2B.CH
 Acq On : 21 Nov 2014 12:34 am Operator: RR
 Sample : M8382-P-D(4) Inst : INST. M
 Misc : NBH14-0310 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 21 08:22:03 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 21 08:21:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7443.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0421\M7443.D\ECD2B.CH
 Acq On : 04 Nov 2014 12:39 pm Operator: RR
 Sample : CD584PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:20 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2993064	100.00000	ng
4) I C15(96) #2	20.51	15614386m	100.00000	ng
Target Compounds				
2) C15(101)	0.00	0d	N.D.	ng
5) C15(101) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7444.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0421\M7444.D\ECD2B.CH
 Acq On : 11-4-2014 01:23:46 PM Operator: RR
 Sample : CD585LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:25 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2860108m	100.00000	ng	
4) I C15(96) #2	20.51	15400691m	100.00000	ng	
Target Compounds					
2) C15(101)	19.73	1198289m	26.07304	ng	70%
5) C15(101) #2	23.22	8763171m	26.90795	ng	72%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7446.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0421\M7446.D\ECD2B.CH
 Acq On : 11-4-2014 02:52:46 PM Operator: RR
 Sample : M8160-P(2) Inst : INST. M
 Misc : NBH14-0033 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:40:05 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:40:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3290035	95.00000	ng
4) I C15(96) #2	20.51	14295827	95.00000	ng
Target Compounds				
2) C15(101)	19.72	5935929	116.24319	ng
5) C15(101) #2	23.22	31422593m	107.04846	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7449.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0421\M7449.D\ECD2B.CH
 Acq On : 11-4-2014 05:06:29 PM Operator: RR
 Sample : M8162-P(2) Inst : INST. M
 Misc : NBH14-0041 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:33 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3141055	95.00000	ng
4) I C15(96) #2	20.52	14186019m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	5903328	121.40177	ng
5) C15(101) #2	23.23	34446233m	120.45571	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7450.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0421\M7450.D\ECD2B.CH
 Acq On : 11-4-2014 05:50:54 PM Operator: RR
 Sample : M8349-P(2) Inst : INST. M
 Misc : NBH14-0181 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:36 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3359037	95.00000	ng
4) I C15(96) #2	20.52	13764477m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	7455599	145.01085	ng
5) C15(101) #2	23.23	40251137	151.78506	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7451.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0421\M7451.D\ECD2B.CH
 Acq On : 11-4-2014 06:35:33 PM Operator: RR
 Sample : M8350-P(2) Inst : INST. M
 Misc : NBH14-0185 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:41 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:35 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3483908	95.00000	ng
4) I C15(96) #2	20.52	14082362m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	6122489	113.03977	ng
5) C15(101) #2	23.23	31450762m	109.06603	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7452.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0421\M7452.D\ECD2B.CH
 Acq On : 11-4-2014 07:19:59 PM Operator: RR
 Sample : M8351-P(2) Inst : INST. M
 Misc : NBH14-0189 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:45 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:39 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3178909m	95.00000	ng
4) I C15(96) #2	20.52	14270748m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	4987214m	100.23254	ng
5) C15(101) #2	23.23	27461006m	91.85586	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7455.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0421\M7455.D\ECD2B.CH
 Acq On : 11-4-2014 09:33:36 PM Operator: RR
 Sample : M8353-P(2) Inst : INST. M
 Misc : NBH14-0197 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:55 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3328997	95.00000	ng
4) I C15(96) #2	20.52	13452913m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	7436029	146.00288	ng
5) C15(101) #2	23.23	41518896m	162.90016	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7457.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0421\M7457.D\ECD2B.CH
 Acq On : 04 Nov 2014 11:02 pm Operator: RR
 Sample : M8364-P(2) Inst : INST. M
 Misc : NBH14-0233 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:23:59 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:54 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3704337	95.00000	ng
4) I C15(96) #2	20.51	14088093m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	8755766	155.15089	ng
5) C15(101) #2	23.23	43397957	162.49549	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7463.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0421\M7463.D\ECD2B.CH
 Acq On : 11-5-2014 03:29:24 AM Operator: RR
 Sample : M8392-P(2) Inst : INST. M
 Misc : NBH14-0121 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:03 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:23:58 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3287575m	95.00000	ng
4) I C15(96) #2	20.52	16318212m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	1967773m	2.06038	ng
5) C15(101) #2	23.23	907151m	3.31660	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7465.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0421\M7465.D\ECD2B.CH
 Acq On : 11-5-2014 04:58:24 AM Operator: RR
 Sample : M8392MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0121 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:13 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:24:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3574207	100.00000	ng
4) I C15(96) #2	20.51	16182679m	100.00000	ng
Target Compounds				
2) C15(101)	19.73	2180960m	38.96934	ng
5) C15(101) #2	23.22	14315617m	42.01612	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7466.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0421\M7466.D\ECD2B.CH
 Acq On : 11-5-2014 05:42:50 AM Operator: RR
 Sample : M8392MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0121 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:18 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:24:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3485171	100.00000	ng
4) I C15(96) #2	20.51	16275277m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	2636680m	48.92021	ng
5) C15(101) #2	23.21	17648672m	51.89592	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7467.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0421\M7467.D\ECD2B.CH
 Acq On : 11-5-2014 06:27:24 AM Operator: RR
 Sample : M8393-P(2) Inst : INST. M
 Misc : NBH14-0125 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:21 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:24:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3247963	95.00000	ng
4) I C15(96) #2	20.52	13849536m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	10647186	221.60715	ng
5) C15(101) #2	23.23	62646824m	307.57266	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7468.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0421\M7468.D\ECD2B.CH
 Acq On : 11-5-2014 07:11:50 AM Operator: RR
 Sample : M8394-P(2) Inst : INST. M
 Misc : NBH14-0129 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:25 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:24:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3473344	95.00000	ng
4) I C15(96) #2	20.51	14010319m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	8680793	164.77274	ng
5) C15(101) #2	23.23	45215773m	173.02134	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0421\M7469.D\ECD1A.CH Vial: 29
 Signal #2 : I:\M\DATA\SM0421\M7469.D\ECD2B.CH
 Acq On : 11-5-2014 07:56:22 AM Operator: RR
 Sample : M8406-P(2) Inst : INST. M
 Misc : NBH14-0177 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:24:29 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:24:24 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3460648	95.00000	ng
4) I C15(96) #2	20.51	13704738m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	10918606	212.44186	ng
5) C15(101) #2	23.23	64230079m	343.37773	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7645.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0425\M7645.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:57 am Operator: RR
 Sample : M8159-P-D(4) Inst : INST. M
 Misc : NBH14-0029 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:52:19 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:52:14 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2313055	95.00000	ng
4) I C15(96) #2	20.52	15695069m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1117678m	28.87237	ng
5) C15(101) #2	23.23	8083534m	23.16243	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7647.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0425\M7647.D\ECD2B.CH
 Acq On : 11-20-2014 01:26:14 PM Operator: RR
 Sample : M8161-P-D(4) Inst : INST. M
 Misc : NBH14-0037 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:52:22 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:52:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2168056	95.00000	ng
4) I C15(96) #2	20.52	14544276m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2238745	64.49397	ng
5) C15(101) #2	23.23	17052030m	53.51781	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7647.D MM0417F.M Tue Dec 09 13:45:43 2014

Signal #1 : I:\M\DATA\SM0425\M7648.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0425\M7648.D\ECD2B.CH
 Acq On : 11-20-2014 02:10:38 PM Operator: RR
 Sample : M8161DUP-P-D(4) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0037 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:52:26 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:52:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2470339m	95.00000	ng
4) I C15(96) #2	20.52	14607828m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2187570	54.86311	ng
5) C15(101) #2	23.23	14589493m	45.24703	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7653.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0425\M7653.D\ECD2B.CH
 Acq On : 11-20-2014 05:52:59 PM Operator: RR
 Sample : M8352-P-D(4) Inst : INST. M
 Misc : NBH14-0193 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:52:40 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:52:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2817234	95.00000	ng
4) I C15(96) #2	20.52	14662486m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1234686	26.00049	ng
5) C15(101) #2	23.23	6815167m	20.94227	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7656.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0425\M7656.D\ECD2B.CH
 Acq On : 11-20-2014 08:06:42 PM Operator: RR
 Sample : M8354-P-D(4) Inst : INST. M
 Misc : NBH14-0199 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:52:57 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:52:49 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2583983	95.00000	ng
4) I C15(96) #2	20.52	14520763m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	4736559m	118.21855	ng
5) C15(101) #2	23.23	31560733m	105.65497	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7658.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0425\M7658.D\ECD2B.CH
 Acq On : 11-20-2014 09:35:53 PM Operator: RR
 Sample : M8366-P-D(4) Inst : INST. M
 Misc : NBH14-0237 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:53:05 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:52:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2943294	95.00000	ng
4) I C15(96) #2	20.52	15076773m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	2896100	61.30094	ng
5) C15(101) #2	23.23	16257241m	49.01138	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7659.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0425\M7659.D\ECD2B.CH
 Acq On : 20 Nov 2014 10:20 pm Operator: RR
 Sample : M8367-P-D(4) Inst : INST. M
 Misc : NBH14-0241 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:53:10 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:53:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2776271m	95.00000	ng
4) I C15(96) #2	20.52	15080107m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1080748	22.87754	ng
5) C15(101) #2	23.23	6226968m	18.66296	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7660.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0425\M7660.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:05 pm Operator: RR
 Sample : M8380-P-D(4) Inst : INST. M
 Misc : NBH14-0302 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:53:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:53:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2918591m	95.00000	ng
4) I C15(96) #2	20.52	14570448m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1234541	25.02616	ng
5) C15(101) #2	23.23	6382195m	19.76395	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7661.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0425\M7661.D\ECD2B.CH
 Acq On : 20 Nov 2014 11:49 pm Operator: RR
 Sample : M8381-P-D(4) Inst : INST. M
 Misc : NBH14-0306 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:53:19 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:53:13 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2818250	95.00000	ng
4) I C15(96) #2	20.52	15573877m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2571896	56.62924	ng
5) C15(101) #2	23.23	15905358m	46.30954	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0425\M7662.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0425\M7662.D\ECD2B.CH
 Acq On : 21 Nov 2014 12:34 am Operator: RR
 Sample : M8382-P-D(4) Inst : INST. M
 Misc : NBH14-0310 5-128 14-0495 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 08:53:22 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:53:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2889062	95.00000	ng
4) I C15(96) #2	20.52	15488897m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1025016	20.68299	ng
5) C15(101) #2	23.23	6048939m	17.68330	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED
Batch 14-0496
Package DP-14-0678

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061




Battelle
The Business of Innovation

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED

Batch 14-0496
Package DP-14-0678






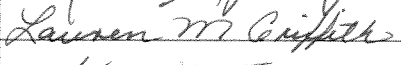




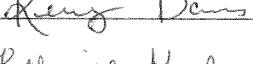
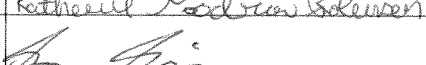

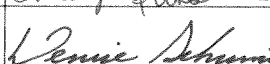












Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

Analyst Approval:		Rich Restucci 2014.11.24 14:47:55 -05'00'
QC Chemist Approval:		Carla Devine 2014.12.10 10:26:27 -05'00'
Project Manager Approval:		Carole McCarthy 2014.12.11 07:39:26 -05'00'

Battelle
The Business of Innovation

2014 Signature Page

Name (print)	Name (signature)	Initials
Matt Schumitz		MNS
Ellyn M Webb		EMW
Carla Devine		CRD
Roxanne M. Brackett		RMB
Robert Lizotte, Jr.		BL
Lauren M Griffith		LMG
Kevin M. McInerney		KMC
Michael McGee		
Rich Restucci		RR
Stephanie Hart		SAH
Kerry Davis		KPD
Katherine Goodrow Robinson		KGR
Sam Guimaraes		SAG
Emily Fraser		EF
Denise Schumitz		DAS
Jonathan Thorn		JRT
Christie Usher		CU
Caitlyn Farragher		CNF
Mart J. Benotti		
William H Brown		WB
Dawn Trapp		DBT
Carolee S. Lynn McLain		CSM
Weidong Li		W.L
Jeannine Seyfert		JS
FRANCO PALA		FP

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED
Batch 14-0496
Package DP-14-0678

1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	23
3	<i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	34
4	<i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	49
5	<i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	79
6	<i>Analytical Data</i> Raw Data Quantification Reports.	137
7	<i>Chromatograms</i> Sample And Standard Chromatograms.	N/A
8	<i>Unused Data</i>	N/A

WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: USACE-NAE New Bedford Harbor LTM MDL Study
Project Number: 100053747
Client: USACE/NAE
696 Virginia Road
Concord, MA 01742
USA
Client Contact Information: Peter Hugh
Engineering Technical Lead
(978) 318-8452(V)
NA
NA
Effective Date of QAPP: 10/9/2014
Version Number: 100053747(S)-02
Project Manager: Peven-McCarthy, Carole
Laboratory Task Manager: Peven-McCarthy, Carole
Deliverable Due Date: 11/3/2014

2.0 SCOPE OF WORK

Overview: A project-specific MDL study is required for this project.
Matrix: Soil/Sediment

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions: Store frozen.
Sub_Sampling: None
Procedures: NA
Contact: NA
Comment: NA
Archiving: NA
Disposal: NA

WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

NA

Samples Expected:	Samples Per Batch:	Batches Expected:
	20	

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

Type:	Description:	Count:	Rgt:	Reference:	Comment:
PB	Laboratory control reagent blank.	1 per batch	--	NA	
LCS	Laboratory Control Sample	1 per batch	No	NA	
MDL	Method Detection Limits	8 per batch	Yes	140304-02: Mud Dump Reference N4415 Lot:N4415	

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev:	5-192-14
SOP Title:	<i>Soil/Sediment Extraction for Trace Level Semi-Volatile Organic Contaminant Analysis</i>
Sample Size:	10 g
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	NA
Comments:	NA

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB Surrogate	ID59 SIS	~ 100 ng	100 uL	NA
ECD LCS/MS Solution	HX10 LCS/MS	~ 38 - 150 ng	75 uL	LCS
PDL spike ECD	ID73 LCS/MS	~ 7.5 - 30.0 ng	150 uL	MDL samples

2.1.3.2 Cleanup

WORK/QUALITY ASSURANCE PROJECT PLAN

- | | | |
|----|--------------|---|
| 1) | SOP No.-Rev: | 5-328-04 |
| | SOP Title: | <i>Removal (cleanup) of Sulfur from Environmental Sample Extracts</i> |
| | Deviations: | NA |
| | Comments: | NA |
| 2) | SOP No.-Rev: | 5-327-04 |
| | SOP Title: | <i>Florisil Cleanup of Environmental Sample Extracts</i> |
| | Deviations: | Elute with Hexane only |
| | Comments: | NA |

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB IS	IE11 RIS	~ 100 ng	100 uL	NA

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

- | | | |
|----|-------------|---|
| 1) | SOP_No-Rev: | 5-128-13 |
| | SOP_Title: | <i>Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection</i> |
| | Deviations: | NA |
| | Comments: | Report SIS corrected data |

2.2. DELIVERABLES

Deliverables Due:	11/3/2014
LIMS Reports:	Yes
Histograms:	No
Excel Tables:	Yes
EICs:	No
Chromatograms:	No

WORK/QUALITY ASSURANCE PROJECT PLAN

EDDs: *Yes*

Comments:

Required 30 day TAT.

EDD required.

Full data package (pdf) required for external validation.

Detailed quant reports are not required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

Staff Member	Role	Comment
Carole S. Peven-McCarthy	Project Manager	NA
Samuel A. Guimaraes	Sample Preparation	NA
Richard P. Restucci Jr	GC/ECD Analysis	NA
Matt D. Schumitz	Sample Custody	NA
Carla R. Devine	Quality Control Officer	NA

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	10/03/2014	NA	0	NA
Sample Preparation	10/06/2014	10/09/2014	3	NA
Instrument Analysis	10/09/2014	10/24/2014	15	NA

WORK/QUALITY ASSURANCE PROJECT PLAN

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Quality Control Review	10/27/2014	10/29/2014	2	NA
Final Data Reporting	10/29/2014	10/31/2014	2	NA

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

Labor Activity:	Hours/ Batch:	Batches:	Total Hours:	Comment:
Sample Receipt	1	1	1	NA
Sample Preparation	24	1	24	NA
<i>Extraction</i>	20			
<i>glassware</i>	4			
Instrument Analysis	16	1	16	NA
<i>GC/ECD</i>	16			
Quality Control Review	3	1	3	NA
Final Data Reporting	1	1	1	NA

7.0 STAFF DEVELOPMENT

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name:	Master_128
SOP Reference:	5-128 - Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection
Description:	Pesticide / PCB by GC/ECD
Matrix:	S - Solid Samples, like soil or sediment, prepared and analyzed under the same class of detection limits.
Detection Limit Study:	5-128-2013-ssMDL-SF
Instrument:	ECD
MQO Criteria	USACE/NBH LTMP
Standard Report:	Standard Result Report

Method Specific Reporting		Holding Times (days)		Data Flags
Result Units:	ng/g	Unit Conversion:	(none)	Sample: 14 DL_Flag: U
Weight Basis:	DRY	Result Format:	Significant Figure	Frozen: 365 RL_Flag: J
Standard Basis:	SIS	# of Figures/Digits:	3	Extract: 40 PB_Flag: B
Oil Weight Basis:	No	Oil Weight Source:	Oil Weight	DIL_Flag: D
U-Value Substitution:	U-Flag=NED	Histograms:	No	HT_Flag: T
ECD_Reporting:	Yes			
ECD_Result:	Higher	ECD_Flag	p	
RPD_Limit (<%):	40	ECD_Manual_Flag:	m	

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Cl2(8)	Cl2(8)	T	Cl5(96)	Cl3(34)	No	No
2	Cl3(18)	Cl3(18)	T	Cl5(96)	Cl3(34)	No	No
3	Cl3(28)	Cl3(28)	T	Cl5(96)	Cl3(34)	No	No
4	Cl4(44)	Cl4(44)	T	Cl5(96)	Cl3(34)	No	No
5	Cl4(52)	Cl4(52)	T	Cl5(96)	Cl3(34)	No	No
6	Cl4(66)	Cl4(66)	T	Cl5(96)	Cl3(34)	No	No
7	Cl5(101)	Cl5(101)	T	Cl5(96)	Cl3(34)	No	No
8	Cl5(105)	Cl5(105)	T	Cl6(161)	Cl6(152)	No	No
9	Cl5(118)	Cl5(118)	T	Cl6(161)	Cl6(152)	No	No
10	Cl6(128)	Cl6(128)	T	Cl6(161)	Cl6(152)	No	No
11	Cl6(138)	Cl6(138)	T	Cl6(161)	Cl6(152)	No	No
12	Cl6(153)	Cl6(153)	T	Cl6(161)	Cl6(152)	No	No
13	Cl7(170)	Cl7(170)	T	Cl6(161)	Cl6(152)	No	No
14	Cl7(180)	Cl7(180)	T	Cl6(161)	Cl6(152)	No	No
15	Cl7(187)	Cl7(187)	T	Cl6(161)	Cl6(152)	No	No
16	Cl8(195)	Cl8(195)	T	Cl6(161)	Cl6(152)	No	No

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
17	CI9(206)	CI9(206)	T	CI6(161)	CI6(152)	No	No
18	CI10(209)	CI10(209)	T	CI6(161)	CI6(152)	No	No
1	CI3(34)	CI3(34)	SIS	CI5(96)		No	No
2	CI6(152)	CI6(152)	SIS	CI6(161)		No	No
Total Analytes:		20					

Subtract Peaks:

None

Sum Peaks:

None

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

ICAL Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Continuing Calibration Verification Criteria:

CCV Name: 5-128

Frequency Hrs:	Mean PD(%):	Individual PD(%):	RIS/SIS RT Window (min):	Area Limit Low(%):	Area Limit High(%):	Comment:
24 (N)	15 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Independent Calibration Verification:

ICC Name: 5-128

Mean PD Limit(%):	Ind. PD Limit(%):	RIS/SIS Window Limit (Secs):	Area Limit High(%):	Area Limit Low(%):	Comment:
20 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Mass Discrimination Criteria:

None

Degradation Check Criteria:

Degradation Check Name: 5-128

DDT Breakdown Limit (%):	Endrin Breakdown Limit(%):	Total Breakdown Limit(%):	Comment:
20 (N)	20 (N)	20 (N)	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	USACE/NBH LTMP		
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Procedural Blank	Samples must be greater than five times the blank concentration (>5xPB).	B	Review with Project Manager; re-analyze or justify results in project records.
PB Measurement Quality Objective	Organic results in the Procedural Blank are less than the ssRL (<ssRL)	N	
Laboratory Control Sample	Recovery values 70-130%.	N	Review with project manager; re-analyze or justify reporting the results in project records.
Matrix Spike Recovery	Organics 70-130%. Analyte concentration in MS must be >5 times reported background concentration. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Matrix Spike/Spike Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Spike must be >5x background concentration. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Standard Reference Material Accuracy	Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit (>5xMDL). Organics Results in the Target is less than 5 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Concentration must be >10X the MDL. Organics Results in the Original is less than 10 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Concentration must be >10X the MDL. Organics Results in the Original is less than 10 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Surrogate Compound Recovery	Recovery results between 40% and 120%.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Control Oil	RPD < 30% for at least 90% of analytes	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Instrument Calibration	5-128-13: R-squared greater than or equal to 0.995 Mean RSD less than or equal to 15%, Individual RSD less than or equal to 25%	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Independent Calibration Check Solution	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 20%.	N	Review with Project Manager; re-analyze or justify in project records.
Continuing Calibration Verification	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 15%.	N	

Sample Receipt Form

Approved: Authorized:

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AMNo. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NACOC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler		None	Intact	Intact	1.0	23

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)Temperature upon receipt (°C): 1 Temperature Blank used Yes No
*(Note: If temperature upon receipt differs from required conditions, see sample log comment field)*Samples Acidified: Yes No UnknownInitial pH 5-9?: Yes No NA
*If no, individual sample adjustments on the Auxiliary Sample Receipt Form*Total Residual Chlorine Present?: Yes No NA
*If yes, individual sample adjustments on the Auxiliary Sample Receipt Form*Head Space <1% in samples for water VOC analysis: Yes No NA
*Individual sample deviations noted on sample log*Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnownStorage Location: Custody: Freezer - F0117 (NA) BDO IDs Assigned: M8152 - M8174Samples logged in by: Schumitz, Matt Date/Time: 09/26/2014 12:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8152	NBH14-0001	09/22/14 15:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8153	NBH14-0005	09/22/14 14:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8154	NBH14-0009	09/22/14 11:16	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8155	NBH14-0013	09/22/14 12:08	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8156	NBH14-0017	09/22/14 8:13	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8157	NBH14-0021	09/22/14 11:38	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8158	NBH14-0025	09/22/14 9:37	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8159	NBH14-0029	09/22/14 10:40	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8160	NBH14-0033	09/22/14 15:25	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8161	NBH14-0037	09/22/14 14:03	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8162	NBH14-0041	09/22/14 13:06	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8163	NBH14-0045	09/23/14 15:43	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8164	NBH14-0049	09/23/14 14:57	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8165	NBH14-0053	09/23/14 13:53	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8166	NBH14-0061	09/23/14 10:12	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8167	NBH14-0065	09/23/14 9:09	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8168	NBH14-0073	09/23/14 14:27	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8169	NBH14-0077	09/23/14 13:39	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8170	NBH14-0081	09/23/14 12:26	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8171	NBH14-0085	09/23/14 11:29	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8172	NBH14-0089	09/23/14 10:32	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8173	NBH14-0093	09/23/14 9:53	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8174	NBH14-0097	09/23/14 8:57	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	

Total Samples: 23



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-842

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:24	NBH14-0001	M8152	SED	120-14LTM	1	X						
9/22/2014	14:24	NBH14-0005	M8153	SED	125-14LTM	1	X						
9/22/2014	11:16	NBH14-0009	M8154	SED	130-14LTM	1	X						
9/22/2014	12:08	NBH14-0013	M8155	SED	134-14LTM	1	X						
9/22/2014	8:13	NBH14-0017	M8156	SED	150-14LTM	1	X						
9/22/2014	11:38	NBH14-0021	M8157	SED	253-14LTM	1	X						
9/22/2014	9:37	NBH14-0025	M8158	SED	216-14LTM	1	X						
9/22/2014	10:40	NBH14-0029	M8159	SED	220-14LTM	1	X						
9/22/2014	15:25	NBH14-0033	M8160	SED	235-14LTM	1	X						
9/22/2014	14:03	NBH14-0037	M8161	SED	240-14LTM	1	X						
9/22/2014	13:06	NBH14-0041	M8162	SED	245-14LTM	1	X						
9/23/2014	15:43	NBH14-0045	M8163	SED	146-14LTM	1	X						
9/23/2014	14:57	NBH14-0049	M8164	SED	140-14LTM	1	X						
9/23/2014	13:53	NBH14-0053	M8165	SED	202-14LTM	1	X						
9/23/2014	10:12	NBH14-0061	M8166	SED	147-14LTM	1	X						
9/23/2014	9:09	NBH14-0065	M8167	SED	135-14LTM	1	X						
9/23/2014	14:27	NBH14-0073	M8168	SED	333-14LTM	1	X						
9/23/2014	13:39	NBH14-0077	M8169	SED	339-14LTM	1	X						
9/23/2014	12:26	NBH14-0081	M8170	SED	346-14LTM	1	X						
9/23/2014	11:29	NBH14-0085	M8171	SED	340-14LTM	1	X						

Relinquished By (name/date/time):

J M Joz 9/26/14 9:15

Received By(name/date/time):

M 9/26/14 9:15



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF


Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-843


Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	10:32	NBH14-0089	M8172	SED	341-14LTM	1	X						
9/23/2014	9:53	NBH14-0093	M8173	SED	334-14LTM	1	X						
9/23/2014	8:57	NBH14-0097	M8174	SED	335-14LTM	1	X						

Relinquished By (name/date/time):

 9/26/14 9:15

Received By(name/date/time):

 9/26/14

Sample Receipt Form

Approved: Authorized

Project Number: 100043429 Client: USACE
Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM
No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA
COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler	NA	Custody Seals	Intact	Intact	1.2	60

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.2 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0113 (NA) BDO IDs Assigned: M8347 - M8406
Samples logged in by: Schumitz, Matt Date/Time: 10/01/2014 12:00 AM
Approved By: Devine, Carla Approved On: 12/5/2014 9:32:00 AM
Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8347	NBH14-0057	09/30/14 10:09	10/02/14 10:08	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8348	NBH14-0069	09/30/14 10:25	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8349	NBH14-0181	09/26/14 8:36	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8350	NBH14-0185	09/26/14 9:50	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8351	NBH14-0189	09/26/14 11:00	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8352	NBH14-0193	09/26/14 12:49	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8353	NBH14-0197	09/26/14 13:38	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8354	NBH14-0199	09/26/14 14:24	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8355	NBH14-0203	09/26/14 15:17	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8356	NBH14-0207	09/26/14 14:32	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8357	NBH14-0211	09/26/14 13:36	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8358	NBH14-0215	09/26/14 8:21	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8359	NBH14-0219	09/26/14 8:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8360	NBH14-0220	09/26/14 9:24	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8361	NBH14-0224	09/26/14 10:54	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8362	NBH14-0228	09/26/14 11:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8363	NBH14-0232	09/25/14 14:16	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8364	NBH14-0233	09/26/14 8:56	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8365	NBH14-0234	09/24/14 14:40	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8366	NBH14-0237	09/29/14 15:14	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8367	NBH14-0241	09/29/14 15:54	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8368	NBH14-0245	09/29/14 8:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8369	NBH14-0249	09/29/14 9:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8370	NBH14-0253	09/29/14 10:01	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8371	NBH14-0257	09/29/14 12:47	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8372	NBH14-0261	09/29/14 14:39	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8373	NBH14-0265	09/29/14 15:26	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8374	NBH14-0269	09/29/14 8:13	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8375	NBH14-0273	09/29/14 9:08	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8376	NBH14-0277	09/29/14 9:52	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8377	NBH14-0281	09/29/14 10:45	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8378	NBH14-0285	09/29/14 11:15	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8379	NBH14-0289	09/29/14 12:27	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8380	NBH14-0302	09/30/14 8:00	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8381	NBH14-0306	09/30/14 9:02	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8382	NBH14-0310	09/30/14 9:59	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8383	NBH14-0314	09/30/14 11:47	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8384	NBH14-0318	09/30/14 12:41	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8385	NBH14-0322	09/30/14 13:44	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8386	NBH14-0326	09/30/14 14:36	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8387	NBH14-0101	09/24/14 10:17	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8388	NBH14-0105	09/24/14 9:18	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8389	NBH14-0109	09/24/14 10:56	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8390	NBH14-0113	09/24/14 12:10	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8391	NBH14-0117	09/24/14 13:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8392	NBH14-0121	09/24/14 14:24	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8393	NBH14-0125	09/25/14 8:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8394	NBH14-0129	09/25/14 9:49	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8395	NBH14-0133	09/25/14 11:00	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8396	NBH14-0137	09/25/14 11:32	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8397	NBH14-0141	09/25/14 12:58	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8398	NBH14-0145	09/25/14 14:03	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8399	NBH14-0149	09/25/14 14:56	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8400	NBH14-0153	09/25/14 8:19	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8401	NBH14-0157	09/25/14 9:06	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8402	NBH14-0161	09/25/14 9:55	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8403	NBH14-0165	09/25/14 12:58	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8404	NBH14-0169	09/25/14 14:11	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8405	NBH14-0173	09/25/14 15:14	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8406	NBH14-0177	09/26/14 7:39	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Total Samples: 60



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057	M0347	SED	151-14LTM	1	X						
9/30/2014	10:25	NBH14-0069	" " 48	SED	155-14LTM	1	X						
9/26/2014	8:36	NBH14-0181	49	SED	242-14LTM	1	X						
9/26/2014	9:50	NBH14-0185	50	SED	241-14LTM	1	X						
9/26/2014	11:00	NBH14-0189	51	SED	237-14LTM	1	X						
9/26/2014	12:49	NBH14-0193	52	SED	236-14LTM	1	X						
9/26/2014	13:38	NBH14-0197	53	SED	231-14LTM	1	X						
9/26/2014	14:24	NBH14-0199	54	SED	230-14LTM	1	X						
9/26/2014	15:17	NBH14-0203	55	SED	117-14LTM	1	X						
9/26/2014	14:32	NBH14-0207	56	SED	114-14LTM	1	X						
9/26/2014	13:36	NBH14-0211	57	SED	111-14LTM	1	X						
9/26/2014	8:21	NBH14-0215	58	SED	152-14LTM	1	X						
9/26/2014	8:50	NBH14-0219	59	SED	152-14LTM	1	X						
9/26/2014	9:24	NBH14-0220	60	SED	138-14LTM	1	X						
9/26/2014	10:54	NBH14-0224	61	SED	126-14LTM	1	X						
9/26/2014	11:50	NBH14-0228	62	SED	108-14LTM	1	X						
9/25/2014	14:16	NBH14-0232	63	SED	139-14LTM	1	X						
9/26/2014	8:56	NBH14-0233	64	SED	242-14LTM	1	X						
9/24/2014	14:40	NBH14-0234	65	SED	306-14LTM	1	X						
9/29/2014	15:14	NBH14-0237	66	SED	222-14LTM	1	X						

Relinquished By (name/date/time):

Matthew R. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:54	NBH14-0241	M8367	SED	224-14LTM	1	X						
9/29/2014	8:06	NBH14-0245	68	SED	128-14LTM	1	X						
9/29/2014	9:06	NBH14-0249	69	SED	123-14LTM	1	X						
9/29/2014	10:01	NBH14-0253	70	SED	121-14LTM	1	X						
9/29/2014	12:47	NBH14-0257	71	SED	218-14LTM	1	X						
9/29/2014	14:39	NBH14-0261	72	SED	208-14LTM	1	X						
9/29/2014	15:26	NBH14-0265	73	SED	207-14LTM	1	X						
9/29/2014	8:13	NBH14-0269	74	SED	332-14LTM	1	X						
9/29/2014	9:08	NBH14-0273	75	SED	338-14LTM	1	X						
9/29/2014	9:52	NBH14-0277	76	SED	331-14LTM	1	X						
9/29/2014	10:45	NBH14-0281	77	SED	323-14LTM	1	X						
9/29/2014	11:15	NBH14-0285	78	SED	324-14LTM	1	X						
9/29/2014	12:27	NBH14-0289	79	SED	325-14LTM	1	X						
9/30/2014	8:00	NBH14-0302	80	SED	225-14LTM	1	X						
9/30/2104	9:02	NBH14-0306	81	SED	226-14LTM	1	X						
9/30/2014	9:59	NBH14-0310	82	SED	227-14LTM	1	X						
9/30/2014	11:47	NBH14-0314	83	SED	217-14LTM	1	X						
9/30/2014	12:41	NBH14-0318	84	SED	212-14LTM	1	X						
9/30/2014	13:44	NBH14-0322	85	SED	211-14LTM	1	X						
9/30/2014	14:36	NBH14-0326	86	SED	204-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101	M8387	SED	349-14LTM	1	X						
9/24/2014	9:18	NBH14-0105	" " 88	SED	352-14LTM	1	X						
9/24/2014	10:56	NBH14-0109	89	SED	345-14LTM	1	X						
9/24/2014	12:10	NBH14-0113	90	SED	318-14LTM	1	X						
9/24/2014	13:15	NBH14-0117	91	SED	311-14LTM	1	X						
9/24/2014	14:24	NBH14-0121	92	SED	306-14LTM	1	X						
9/25/2014	8:15	NBH14-0125	93	SED	221-14LTM	1	X						
9/25/2014	9:49	NBH14-0129	94	SED	249-14LTM	1	X						
9/25/2014	11:00	NBH14-0133	95	SED	317-14LTM	1	X						
9/25/2014	11:32	NBH14-0137	96	SED	309-14LTM	1	X						
9/25/2014	12:58	NBH14-0141	97	SED	310-14LTM	1	X						
9/25/2014	14:03	NBH14-0145	98	SED	304-14LTM	1	X						
9/25/2014	14:56	NBH14-0149	99	SED	250-14LTM	1	X						
9/25/2014	8:19	NBH14-0153	M8400	SED	105-14LTM	1	X						
9/25/2014	9:06	NBH14-0157	" " 01	SED	109-14LTM	1	X						
9/25/2014	9:55	NBH14-0161	02	SED	115-14LTM	1	X						
9/25/2014	12:58	NBH14-0165	03	SED	154-14LTM	1	X						
9/25/2014	14:11	NBH14-0169	04	SED	139-14LTM	1	X						
9/25/2014	15:14	NBH14-0173	05	SED	131-14LTM	1	X						
9/26/2014	7:39	NBH14-0177	06	SED	247-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID Procedural Blank

Battelle ID CD586PB-P
Sample Type PB
Collection Date 10/31/2014
Extraction Date 10/31/2014
Analysis Date 11/07/2014
Analytical Instrument ECD
% Moisture 1.70
% Lipid NA
Matrix SEDIMENT
Sample Size 9.79
Size Unit-Basis G_DRY
Units NG/G_DRY

Cl2(8)	0.245 U
Cl3(18)	0.246 U
Cl3(28)	0.246 U
Cl4(44)	0.246 U
Cl4(52)	0.245 U
Cl4(66)	0.245 U
Cl5(101)	0.245 U
Cl5(105)	0.246 U
Cl5(118)	0.246 U
Cl6(128)	0.246 U
Cl6(138)	0.246 U
Cl6(153)	0.246 U
Cl7(170)	0.246 U
Cl7(180)	0.246 U
Cl7(187)	0.246 U
Cl8(195)	0.246 U
Cl9(206)	0.245 U
Cl10(209)	0.246 U

Surrogate Recoveries (%)

Cl3(34)	98
Cl6(152)	100

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID Laboratory Control
Sample
Battelle ID CD587LCS-P
Sample Type LCS
Collection Date 10/31/2014
Extraction Date 10/31/2014
Analysis Date 11/07/2014
Analytical Instrument ECD
% Moisture 1.70
% Lipid NA
Matrix SEDIMENT
Sample Size 9.84
Size Unit-Basis G_DRY
Units NG/G_DRY **Target % REC Qual**

		Target	% REC	Qual
Cl2(8)	3.35	3.81	88	
Cl3(18)	3.26	3.81	86	
Cl3(28)	3.33	3.81	87	
Cl4(44)	3.69	3.81	97	
Cl4(52)	3.66	3.81	96	
Cl4(66)	3.59	3.81	94	
Cl5(101)	3.68	3.81	97	
Cl5(105)	4.11	3.81	108	
Cl5(118)	4.15	3.81	109	
Cl6(128)	3.84	3.81	101	
Cl6(138)	3.75	3.81	98	
Cl6(153)	4.26	3.81	112	
Cl7(170)	4.52	3.81	119	
Cl7(180)	3.87	3.81	102	
Cl7(187)	3.87	3.81	102	
Cl8(195)	3.85	3.81	101	
Cl9(206)	3.74	3.81	98	
Cl10(209)	3.94	3.81	103	

Surrogate Recoveries (%)

Cl3(34)	98			
Cl6(152)	97			

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0021	NBH14-0077	NBH14-0089	NBH14-0093
Battelle ID	M8157-P	M8169-P	M8172-P	M8173-P
Sample Type	SA	SA	SA	SA
Collection Date	09/22/2014	09/23/2014	09/23/2014	09/23/2014
Extraction Date	10/31/2014	10/31/2014	10/31/2014	10/31/2014
Analysis Date	11/07/2014	11/07/2014	11/07/2014	11/07/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	3.33	1.62	1.05	1.02
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	2.42	9.94	9.96	9.89
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	4.86	1.60	0.709	2.65
Cl3(18)	10.3	1.04	0.495	1.99
Cl3(28)	23.4	5.78	2.32	7.58
Cl4(44)	13.6	1.33	0.665	2.37
Cl4(52)	36.3	3.45	1.70 p	6.52
Cl4(66)	11.3	3.35	1.89	5.74
Cl5(101)	18.4	3.15	1.67	5.94
Cl5(105)	10.1	2.81	1.13	5.08
Cl5(118)	31.4	10.9	4.58	20.0
Cl6(128)	6.66	2.12	0.942	3.74
Cl6(138)	26.3	7.62	3.29	13.8
Cl6(153)	22.6	8.26	3.42	13.6
Cl7(170)	2.60	0.867	0.337	1.60
Cl7(180)	4.03	1.32	0.429	2.29
Cl7(187)	2.47	1.34	0.439 p	2.94 p
Cl8(195)	1.05 U	0.255 U	0.255 U	0.151 J
Cl9(206)	1.04 U	0.128 J	0.254 U	0.293
Cl10(209)	1.05 U	0.255 U	0.255 U	0.257 U

Surrogate Recoveries (%)

Cl3(34)	97	102	96	111
Cl6(152)	92	82	88	82

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0097	NBH14-0269	NBH14-0273	NBH14-0277
Battelle ID	M8174-P	M8374-P	M8375-P	M8376-P
Sample Type	SA	SA	SA	SA
Collection Date	09/23/2014	09/29/2014	09/29/2014	09/29/2014
Extraction Date	10/31/2014	10/31/2014	10/31/2014	10/31/2014
Analysis Date	11/07/2014	11/07/2014	11/08/2014	11/08/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	2.16	1.03	1.04	4.47
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	9.83	9.99	9.90	9.55
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	2.86	0.518	2.06	2.93
Cl3(18)	2.63	0.164 J	1.76	2.43
Cl3(28)	8.90	1.88	6.06	9.14
Cl4(44)	4.46	0.535	1.72	3.39
Cl4(52)	7.56	1.80 p	5.10	9.06
Cl4(66)	8.54	1.53	4.63	7.21
Cl5(101)	7.83	1.61	4.14	6.83
Cl5(105)	6.40	0.965	3.70	6.22
Cl5(118)	24.2	4.22	13.9	24.8
Cl6(128)	4.77	0.806	2.58	4.59
Cl6(138)	18.0	3.08	9.99	17.3
Cl6(153)	19.4	3.31	10.0	17.5
Cl7(170)	2.10	0.211 J	1.13	2.13
Cl7(180)	3.19	0.384	1.55	2.92
Cl7(187)	2.93	0.282	2.48 p	2.75
Cl8(195)	0.239 J	0.254 U	0.0643 J	0.254 J
Cl9(206)	0.399	0.253 U	0.178 J	0.371
Cl10(209)	0.108 J	0.254 U	0.256 U	0.189 pJ

Surrogate Recoveries (%)

Cl3(34)	83	98	103	107
Cl6(152)	69	83	82	77

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0281	NBH14-0285	NBH14-0289	NBH14-0109
Battelle ID	M8377-P	M8378-P	M8379-P	M8389-P
Sample Type	SA	SA	SA	SA
Collection Date	09/29/2014	09/29/2014	09/29/2014	09/24/2014
Extraction Date	10/31/2014	10/31/2014	10/31/2014	10/31/2014
Analysis Date	11/08/2014	11/08/2014	11/08/2014	11/08/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	1.61	3.63	0.52	4.66
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	9.96	9.62	9.95	9.54
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	4.67	10.9	6.22	1.44
Cl3(18)	5.36	14.1	5.87	0.863
Cl3(28)	13.0 D	31.4 D	20.6	4.16
Cl4(44)	3.95	18.9	7.34	1.28
Cl4(52)	13.2	51.4 D	22.0	3.52
Cl4(66)	12.5	23.9 D	11.1	3.29
Cl5(101)	9.96	39.0 D	15.6	3.20
Cl5(105)	10.8	22.7	14.2	2.61
Cl5(118)	38.6 D	77.4 D	50.6 D	10.1
Cl6(128)	7.06	14.6	9.06	2.01
Cl6(138)	26.4	65.8 D	45.2 D	7.40
Cl6(153)	27.1	56.5 D	43.9 D	7.03
Cl7(170)	3.45	7.14	4.59	0.733
Cl7(180)	4.72	10.9	6.35	1.07
Cl7(187)	4.82 p	8.76	6.31 p	2.42 p
Cl8(195)	0.452	1.11	0.582	0.266 U
Cl9(206)	0.540	1.48	0.615	0.265 U
Cl10(209)	0.173 pJ	0.829 p	0.163 J	0.266 U

Surrogate Recoveries (%)

Cl3(34)	104	115	112	103
Cl6(152)	78	86	79	86

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0113	NBH14-0117	NBH14-0133	NBH14-0137
Battelle ID	M8390-P	M8391-P	M8395-P	M8396-P
Sample Type	SA	SA	SA	SA
Collection Date	09/24/2014	09/24/2014	09/25/2014	09/25/2014
Extraction Date	10/31/2014	10/31/2014	10/31/2014	10/31/2014
Analysis Date	11/08/2014	11/08/2014	11/08/2014	11/08/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	0.00	0.00	1.10	3.61
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	10.06	10.07	9.90	9.67
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	0.127	J	0.197	J	14.7	5.84
Cl3(18)	0.252	U	0.252	U	16.0	6.10
Cl3(28)	0.979		1.38		56.7	24.8
Cl4(44)	0.279	p	0.527		20.2	9.94
Cl4(52)	1.16	p	1.96	p	62.8	28.7
Cl4(66)	0.999		1.03		31.8	20.1
Cl5(101)	1.17		1.45		52.8	29.5
Cl5(105)	0.386		0.574		34.4	21.8
Cl5(118)	1.90		2.54		116	76.7
Cl6(128)	0.345		0.487		21.4	13.4
Cl6(138)	1.60		2.01		96.2	64.4
Cl6(153)	1.69		2.10		79.6	56.4
Cl7(170)	0.252	U	0.252	U	10.7	6.84
Cl7(180)	0.252	U	0.183	J	14.8	9.54
Cl7(187)	0.252	U	0.304	p	11.1	6.81
Cl8(195)	0.252	U	0.252	U	1.64	1.09
Cl9(206)	0.251	U	0.251	U	2.41	1.29
Cl10(209)	0.252	U	0.252	U	0.832	0.635

Surrogate Recoveries (%)

Cl3(34)	94	95	101	102
Cl6(152)	90	90	80	69

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0141	NBH14-0145	NBH14-0149
Battelle ID	M8397-P	M8398-P	M8399-P
Sample Type	SA	SA	SA
Collection Date	09/25/2014	09/25/2014	09/25/2014
Extraction Date	10/31/2014	10/31/2014	10/31/2014
Analysis Date	11/08/2014	11/08/2014	11/08/2014
Analytical Instrument	ECD	ECD	ECD
% Moisture	0.00	0.52	0.52
% Lipid	NA	NA	NA
Matrix	SED	SED	SED
Sample Size	10.05	9.96	2.52
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	16.6	43.4	D	9.45
Cl3(18)	17.6	39.8	D	14.1
Cl3(28)	50.5	108	D	37.8
Cl4(44)	16.2	32.6	D	14.8
Cl4(52)	55.7	113	D	51.8
Cl4(66)	19.8	46.6	D	18.6
Cl5(101)	35.8	51.5	D	23.9
Cl5(105)	21.7	30.0		16.0
Cl5(118)	71.2	108	D	58.2
Cl6(128)	13.5	15.8		9.90
Cl6(138)	52.5	72.9	D	39.9
Cl6(153)	48.0	74.4	D	41.5
Cl7(170)	5.80	7.13		4.40
Cl7(180)	7.87	10.7		7.43
Cl7(187)	5.84	9.33		6.62 p
Cl8(195)	0.826	1.12		0.327 J
Cl9(206)	0.817	1.33		1.00 U
Cl10(209)	0.388	0.361	p	1.01 U

Surrogate Recoveries (%)

Cl3(34)	114	109	108
Cl6(152)	95	83	86

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0093	NBH14-0093	
Battelle ID	M8173-P	M8173DUP-P	
Sample Type	SA	QADU	
Collection Date	09/23/2014	09/23/2014	
Extraction Date	10/31/2014	10/31/2014	
Analysis Date	11/07/2014	11/07/2014	
Analytical Instrument	ECD	ECD	
% Moisture	1.02	1.06	
% Lipid	NA	NA	
Matrix	SED	SED	
Sample Size	9.89	10.08	
Size Unit-Basis	G_DRY	G_DRY	
Units	NG/G_DRY	NG/G_DRY	RPD Qual

Cl2(8)	2.65	3.09	15.3
Cl3(18)	1.99	2.16	8.2
Cl3(28)	7.58	8.24	8.3
Cl4(44)	2.37	2.52	6.1
Cl4(52)	6.52	7.03	7.5
Cl4(66)	5.74	5.96	3.8
Cl5(101)	5.94	5.80	2.4
Cl5(105)	5.08	5.25	3.3
Cl5(118)	20.0	21.0	4.9
Cl6(128)	3.74	3.65	2.4
Cl6(138)	13.8	14.3	3.6
Cl6(153)	13.6	14.1	3.6
Cl7(170)	1.60	1.61	0.6
Cl7(180)	2.29	2.24	2.2
Cl7(187)	2.94 p	2.96 p	0.7
Cl8(195)	0.151 J	0.167 J	
Cl9(206)	0.293	0.247 J	17.0
Cl10(209)	0.257 U	0.252 U	

Surrogate Recoveries (%)

Cl3(34)	111	106	
Cl6(152)	82	82	

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0113	NBH14-0113			
Battelle ID	M8390-P	M8390MS-P			
Sample Type	SA	MS			
Collection Date	09/24/2014	09/24/2014			
Extraction Date	10/31/2014	10/31/2014			
Analysis Date	11/08/2014	11/08/2014			
Analytical Instrument	ECD	ECD			
% Moisture	0.00	0.53			
% Lipid	NA	NA			
Matrix	SED	SED			
Sample Size	10.06	5.00			
Size Unit-Basis	G_DRY	G_DRY			
Units	NG/G_DRY	NG/G_DRY	Target	% REC	Qual
Cl2(8)	0.127 J	11.0	12.50	87	
Cl3(18)	0.252 U	10.6	12.50	85	
Cl3(28)	0.979	12.3	12.50	91	
Cl4(44)	0.279 p	12.7	12.50	99	
Cl4(52)	1.16 p	12.2	12.50	88	
Cl4(66)	0.999	13.2	12.50	98	
Cl5(101)	1.17	11.2	12.50	80	
Cl5(105)	0.386	12.4	12.50	96	
Cl5(118)	1.90	13.6	12.50	94	
Cl6(128)	0.345	12.6	12.50	98	
Cl6(138)	1.60	12.6	12.50	88	
Cl6(153)	1.69	13.2	12.50	92	
Cl7(170)	0.252 U	12.7	12.50	102	
Cl7(180)	0.252 U	13.0	12.50	104	
Cl7(187)	0.252 U	12.5	12.50	100	
Cl8(195)	0.252 U	13.6	12.50	109	
Cl9(206)	0.251 U	14.1	12.50	113	
Cl10(209)	0.252 U	15.0	12.50	120	
Surrogate Recoveries (%)					
Cl3(34)	94	98			
Cl6(152)	90	98			

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID NBH14-0113

Battelle ID M8390MSD-P

Sample Type MSD

Collection Date 09/24/2014

Extraction Date 10/31/2014

Analysis Date 11/08/2014

Analytical Instrument ECD

% Moisture 0.00

% Lipid NA

Matrix SED

Sample Size 5.14

Size Unit-Basis G_DRY

Units NG/G_DRY

Target % REC Qual RPD Qual

		Target	% REC	Qual	RPD	Qual
CI2(8)	11.0	12.16	89		2.3	
CI3(18)	10.6	12.16	87		2.3	
CI3(28)	12.5	12.16	95		4.3	
CI4(44)	13.7	12.16	110		10.5	
CI4(52)	13.1	12.16	98		10.8	
CI4(66)	13.4	12.16	102		4.0	
CI5(101)	12.2	12.16	91		12.9	
CI5(105)	11.9	12.16	95		1.0	
CI5(118)	13.4	12.16	95		1.1	
CI6(128)	12.1	12.16	97		1.0	
CI6(138)	13.2	12.16	95		7.7	
CI6(153)	13.8	12.16	100		8.3	
CI7(170)	11.8	12.16	97		5.0	
CI7(180)	12.0	12.16	98		5.9	
CI7(187)	12.0	12.16	98		2.0	
CI8(195)	12.1	12.16	100		8.6	
CI9(206)	11.9	12.16	98		14.2	
CI10(209)	12.5	12.16	103		15.2	

Surrogate Recoveries (%)

CI3(34)	93
CI6(152)	98

Glossary of Data Qualifiers

Flag: Application:

- B Analyte concentration found in the sample at a concentration <5x the level found in the procedural blank.
- D Dilution Run. Initial run outside linear range of instrument.
- E Estimate, result is greater than the highest concentration level in the calibration.
- H Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
- J Analyte detected below the sample-specific Reporting Limit (RL).
- m Confirmation column manually over-ridden by analyst, dual column quantitative analysis only.
- ME Significant Matrix Interference - Estimated value.
- MI Significant Matrix Interference - value could not be determined or estimated.
- n Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets the contingency criteria.
- N Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
- NA Not applicable
- p Dual column value exceeds RPD criteria, dual column quantitative analysis only.
- T Holding Time (HT) exceeded.
- U Analyte not detected at 3:1 signal:noise ratio.

**QA/QC Summary
Batch 14-0496**

Project:	USACE/NAE – New Bedford Harbor Long Term Monitoring
Parameters:	PCB Congeners (NOAA 18)
Laboratory:	Battelle, Norwell, MA
Matrix:	Sediment
Data Set:	DP-14-0678
Analytical SOP:	5-128
Method Reference:	EPA Method 8081B and 8082A (modified)

Sample Custody

Collection Date	Receipt Date	Temp (°C)
9/22-30/2014	9/26, 10/1/2014	1.0, 1.2

Corrective Actions	NA
Sample Storage	The sediment samples were stored frozen until extraction.
Related samples	NA

METHOD SUMMARIES

Sample Preparation	Prior to sediment extraction, an aliquot of approximately 30 g of wet sediment was placed on clean, labeled aluminum foil, covered and placed in a laboratory laminar flow hood to dry the sample to <50% moisture. Aliquots of these dried samples were weighed into sample extraction vessels for sample extraction. Approximately 2.5 to 10 g sediment was weighed out for extraction (sample weight based on historical analysis results). The sediments were spiked with surrogates, extracted three times with methylene chloride, and the extracts combined, dried over anhydrous sodium sulfate, and concentrated. The concentrated extracts were processed through Florisil to isolate the PCBs, followed by activated copper treatment to remove sulfur. The cleaned extract was concentrated and fortified with internal standard (IS) compounds prior to analysis by GC/ECD.
Prep Comments	During Florisil columns, sample M8171 did not elute into the 40 mL vial. Per order of project manager, the sample will added to batch 14-0497 and caught up with the rest of the batch.

Analysis	PCBs were analyzed by gas chromatography electron capture detection (GC/ECD). An initial calibration consisting of target analytes was analyzed prior to sample analysis to demonstrate the linear range. Calibration verification was performed at the beginning and end of each 24-hr period in which samples were analyzed. Concentrations of target compounds were calculated versus internal standards using the average response factors (RF) generated from the initial calibration.
Analysis Comments	<ul style="list-style-type: none"> Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed

**QA/QC Summary
Batch 14-0496**

	<p>inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.</p> <ul style="list-style-type: none"> • In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency. • In cases where p qualifiers are present, integrations and data were reviewed. • Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak. Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
--	---

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/31/2014	11/7-9/2014

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
Blank value <5x ssMDL	No exceedances noted.
Samples >5X PB	No comments.

Laboratory Control Spike	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
70-130% recovery	No exceedances noted.
	No comments.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	A MS/MSD pair was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy. The relative percent difference (RPD) was calculated to measure data quality in terms of precision.
70-130% recovery	No exceedances noted
<30% RPD	No comments.
Spike must be >5x bkgd conc.	

**QA/QC Summary
Batch 14-0496**

Sample Duplicate (DUP)	A laboratory duplicate of one sediment was prepared with the analytical batch. The relative percent difference (RPD) was calculated to measure data quality in terms of precision. NOTE: This QC sample was inadvertently included in the sample batch instead of the requested SRM.
<30% RPD	No exceedances noted.
Conc must be >10X MDL	No comments.

Surrogate Recovery	Surrogate compounds were added prior to extraction. The surrogate recoveries are calculated to measure extraction efficiency.
40-120% recovery	No exceedances noted. No comments.

Initial Calibration (ICAL)	The GC/ECD was calibrated with six-level quadratic calibration curve for all compounds using an instrument response factor (RF).
$R^2 \geq 0.995$	No exceedances noted. No comments.

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
$\leq 20\%$ difference individual and mean	No exceedances noted. No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run every 24 hours to ensure that initial calibration is still valid.
$\leq 20\%$ difference individual; $\leq 15\%$ difference mean	No exceedances noted. No comments.

Report Project Data Set MOOs

Project Title: USACE/NAE - New Bedford Harbor LTM

Data Set Number: DP-14-0678

Project Number: 100053747

Prep Batch Number: 14-0496

Test Code (Matrix Type): Master_128(S)

QC_PARAMETER:	Exceed:	Contg.:	JUSTIFICATION:
Procedural Blank	0	0	None
PB Measurement Quality Objective	0	0	None
Laboratory Control Sample	0	0	None
Matrix Spike Recovery	0	0	None
Matrix Spike/Spike Duplicate Precision	0	0	None
Standard Reference Material Accuracy	NA	NA	NA
Analytical Duplicate Precision	0	0	None
Analytical Triplicate Precision	NA	NA	NA
Surrogate Compound Recovery	0	0	None
Control Oil	NA	NA	NA
Instrument Calibration	0	0	None
Independent Calibration Check Solution	0	0	None
Continuing Calibration Verification	0	0	None

BATTELLE - DUXBURY OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title: USACE/NAE - New Bedford Harbor LTM **Data Set Number:** DP-14-0678
Project Number: 100053747 **Prep Batch Number:** 14-0496
Entered By: Richard Restucci Jr **Entered On:** 11/24/2014
Test Code (Matrix Type): Master_128(S)

Integrations by Rich Restucci.
RR 11/24/14

Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak.

Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
RR 12/8/14

Method MM0417C utilizes the quant sheets from MM0417B.
RR 11/24/14

Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96,161, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.
RR 11/24/14

In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency.
RR 11/24/14

In cases where p qualifiers are present, integrations and data were reviewed.
RR 11/24/14

Task Leader Approval:  Kevin McInerney
2014.12.08 14:08:05 -05'00'

Supervisor Approval:

PM Approval:  Carole McCarthy
2014.12.09 07:44:02 -05'00'

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl5(96)	2021371
SM0417.S	M7207.D	IE05	CS	Cl5(96)	2103011
SM0417.S	M7208.D	IE06	CS	Cl5(96)	2225995
SM0417.S	M7209.D	IE07	CS	Cl5(96)	2400478
SM0417.S	M7210.D	IE08	CS	Cl5(96)	2523572
SM0417.S	M7212.D	IE10	CS	Cl5(96)	2857033

L3
(+)
(-)

2225995
4451990
1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl5(96)	2508888	
SM0423.S	M7507.D	IE07	CCV	Cl5(96)	3434576	
SM0423.S	M7508.D	CD586PB-P(0)	PB	Cl5(96)	3500251	
SM0423.S	M7509.D	CD587LCS-P(0)	LCS	Cl5(96)	3678408	
SM0423.S	M7510.D	M8157-P(2)	SA	Cl5(96)	3606887	
SM0423.S	M7511.D	M8169-P(2)	SA	Cl5(96)	3661050	
SM0423.S	M7512.D	M8172-P(2)	SA	Cl5(96)	3497272	
SM0423.S	M7513.D	M8173-P(2)	SA	Cl5(96)	3596588	
SM0423.S	M7514.D	M8173DUP-P(2)	QADU	Cl5(96)	3594048	
SM0423.S	M7515.D	M8174-P(2)	SA	Cl5(96)	3825068	
SM0423.S	M7516.D	M8374-P(2)	SA	Cl5(96)	3801859	
SM0423.S	M7517.D	M8375-P(2)	SA	Cl5(96)	3819746	
SM0423.S	M7518.D	IE08	CCV	Cl5(96)	3718834	
SM0423.S	M7519.D	M8376-P(2)	SA	Cl5(96)	3645097	
SM0423.S	M7520.D	M8377-P(2)	SA	Cl5(96)	3533034	
SM0423.S	M7521.D	M8378-P(2)	SA	Cl5(96)	3792004	
SM0423.S	M7522.D	M8379-P(2)	SA	Cl5(96)	3608786	
SM0423.S	M7523.D	M8389-P(2)	SA	Cl5(96)	3490502	
SM0423.S	M7524.D	M8390-P(2)	SA	Cl5(96)	3688374	
SM0423.S	M7525.D	M8390MS-P(0)	MS	Cl5(96)	3626221	
SM0423.S	M7526.D	M8390MSD-P(0)	MSD	Cl5(96)	3781855	
SM0423.S	M7527.D	M8391-P(2)	SA	Cl5(96)	3497694	
SM0423.S	M7528.D	M8395-P(2)	SA	Cl5(96)	3530570	
SM0423.S	M7529.D	IE08	CCV	Cl5(96)	3751383	
SM0423.S	M7530.D	M8396-P(2)	SA	Cl5(96)	2980050	
SM0423.S	M7531.D	M8397-P(2)	SA	Cl5(96)	3649612	
SM0423.S	M7532.D	M8398-P(2)	SA	Cl5(96)	3730211	
SM0423.S	M7533.D	M8399-P(2)	SA	Cl5(96)	3467952	
SM0423.S	M7540.D	IE07	CCV	Cl5(96)	3843679	
SM0423.S	M7544.D	M8377-P-D(4)	SA	Cl5(96)	3048730	
SM0423.S	M7545.D	M8378-P-D(4)	SA	Cl5(96)	3151053	
SM0423.S	M7546.D	M8379-P-D(4)	SA	Cl5(96)	2818436	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0423.S	M7550.D	M8395-P-D(4)	SA	CI5(96)	2880283	
SM0423.S	M7551.D	IE07	CCV	CI5(96)	3751725	
SM0423.S	M7552.D	M8396-P-D(4)	SA	CI5(96)	2961828	
SM0423.S	M7553.D	M8397-P-D(4)	SA	CI5(96)	2938973	
SM0423.S	M7554.D	M8398-P-D(4)	SA	CI5(96)	2927377	
SM0423.S	M7562.D	IE08	CCV	CI5(96)	3623258	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	4304957
SM0417.S	M7207.D	IE05	CS	Cl6(161)	4562564
SM0417.S	M7208.D	IE06	CS	Cl6(161)	4815577
SM0417.S	M7209.D	IE07	CS	Cl6(161)	5366502
SM0417.S	M7210.D	IE08	CS	Cl6(161)	5424577
SM0417.S	M7212.D	IE10	CS	Cl6(161)	5785136

L3 4815577
 (+) 9631155
 (-) 2407789

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	5353469	
SM0423.S	M7507.D	IE07	CCV	Cl6(161)	7932432	
SM0423.S	M7508.D	CD586PB-P(0)	PB	Cl6(161)	6760589	
SM0423.S	M7509.D	CD587LCS-P(0)	LCS	Cl6(161)	7211167	
SM0423.S	M7510.D	M8157-P(2)	SA	Cl6(161)	7126224	
SM0423.S	M7511.D	M8169-P(2)	SA	Cl6(161)	7429651	
SM0423.S	M7512.D	M8172-P(2)	SA	Cl6(161)	6819154	
SM0423.S	M7513.D	M8173-P(2)	SA	Cl6(161)	7718853	
SM0423.S	M7514.D	M8173DUP-P(2)	QADU	Cl6(161)	7577535	
SM0423.S	M7515.D	M8174-P(2)	SA	Cl6(161)	7975678	
SM0423.S	M7516.D	M8374-P(2)	SA	Cl6(161)	7960388	
SM0423.S	M7517.D	M8375-P(2)	SA	Cl6(161)	7523269	
SM0423.S	M7518.D	IE08	CCV	Cl6(161)	8628871	
SM0423.S	M7519.D	M8376-P(2)	SA	Cl6(161)	7762451	
SM0423.S	M7520.D	M8377-P(2)	SA	Cl6(161)	8356117	
SM0423.S	M7521.D	M8378-P(2)	SA	Cl6(161)	7181827	
SM0423.S	M7522.D	M8379-P(2)	SA	Cl6(161)	8322299	
SM0423.S	M7523.D	M8389-P(2)	SA	Cl6(161)	7055913	
SM0423.S	M7524.D	M8390-P(2)	SA	Cl6(161)	7754964	
SM0423.S	M7525.D	M8390MS-P(0)	MS	Cl6(161)	7432844	
SM0423.S	M7526.D	M8390MSD-P(0)	MSD	Cl6(161)	7722627	
SM0423.S	M7527.D	M8391-P(2)	SA	Cl6(161)	7207309	
SM0423.S	M7528.D	M8395-P(2)	SA	Cl6(161)	6831259	
SM0423.S	M7529.D	IE08	CCV	Cl6(161)	8260707	
SM0423.S	M7530.D	M8396-P(2)	SA	Cl6(161)	6981212	
SM0423.S	M7531.D	M8397-P(2)	SA	Cl6(161)	5855936	
SM0423.S	M7532.D	M8398-P(2)	SA	Cl6(161)	6615296	
SM0423.S	M7533.D	M8399-P(2)	SA	Cl6(161)	7095996	
SM0423.S	M7540.D	IE07	CCV	Cl6(161)	8987186	
SM0423.S	M7544.D	M8377-P-D(4)	SA	Cl6(161)	7221829	
SM0423.S	M7545.D	M8378-P-D(4)	SA	Cl6(161)	7453505	
SM0423.S	M7546.D	M8379-P-D(4)	SA	Cl6(161)	6153499	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0423.S	M7550.D	M8395-P-D(4)	SA	Cl6(161)	6695342	
SM0423.S	M7551.D	IE07	CCV	Cl6(161)	8549030	
SM0423.S	M7552.D	M8396-P-D(4)	SA	Cl6(161)	6855590	
SM0423.S	M7553.D	M8397-P-D(4)	SA	Cl6(161)	6629681	
SM0423.S	M7554.D	M8398-P-D(4)	SA	Cl6(161)	6728469	
SM0423.S	M7562.D	IE08	CCV	Cl6(161)	7822875	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12822282
SM0417.S	M7207.D	IE05	CS	CI5(96)	12416297
SM0417.S	M7208.D	IE06	CS	CI5(96)	13716870
SM0417.S	M7209.D	IE07	CS	CI5(96)	14992953
SM0417.S	M7210.D	IE08	CS	CI5(96)	15446142
SM0417.S	M7212.D	IE10	CS	CI5(96)	15534608
				L3	13716870
				(+)	27433739
				(-)	6858435

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13969685	
SM0423.S	M7507.D	IE07	CCV	CI5(96)	16878951	
SM0423.S	M7508.D	CD586PB-P(0)	PB	CI5(96)	15448268	
SM0423.S	M7509.D	CD587LCS-P(0)	LCS	CI5(96)	16443161	
SM0423.S	M7510.D	M8157-P(2)	SA	CI5(96)	14883017	
SM0423.S	M7511.D	M8169-P(2)	SA	CI5(96)	14542091	
SM0423.S	M7512.D	M8172-P(2)	SA	CI5(96)	17235230	
SM0423.S	M7513.D	M8173-P(2)	SA	CI5(96)	14123699	
SM0423.S	M7514.D	M8173DUP-P(2)	QADU	CI5(96)	15122669	
SM0423.S	M7515.D	M8174-P(2)	SA	CI5(96)	15723574	
SM0423.S	M7516.D	M8374-P(2)	SA	CI5(96)	16569354	
SM0423.S	M7517.D	M8375-P(2)	SA	CI5(96)	14682150	
SM0423.S	M7518.D	IE08	CCV	CI5(96)	17962544	
SM0423.S	M7519.D	M8376-P(2)	SA	CI5(96)	15040396	
SM0423.S	M7520.D	M8377-P(2)	SA	CI5(96)	15222855	
SM0423.S	M7521.D	M8378-P(2)	SA	CI5(96)	14022060	
SM0423.S	M7522.D	M8379-P(2)	SA	CI5(96)	14026166	
SM0423.S	M7523.D	M8389-P(2)	SA	CI5(96)	14601470	
SM0423.S	M7524.D	M8390-P(2)	SA	CI5(96)	15499309	
SM0423.S	M7525.D	M8390MS-P(0)	MS	CI5(96)	15829971	
SM0423.S	M7526.D	M8390MSD-P(0)	MSD	CI5(96)	17075691	
SM0423.S	M7527.D	M8391-P(2)	SA	CI5(96)	15935191	
SM0423.S	M7528.D	M8395-P(2)	SA	CI5(96)	12932455	
SM0423.S	M7529.D	IE08	CCV	CI5(96)	19093439	
SM0423.S	M7530.D	M8396-P(2)	SA	CI5(96)	12537385	
SM0423.S	M7531.D	M8397-P(2)	SA	CI5(96)	13606181	
SM0423.S	M7532.D	M8398-P(2)	SA	CI5(96)	12952429	
SM0423.S	M7533.D	M8399-P(2)	SA	CI5(96)	14430981	
SM0423.S	M7540.D	IE07	CCV	CI5(96)	18028230	
SM0423.S	M7544.D	M8377-P-D(4)	SA	CI5(96)	18877567	
SM0423.S	M7545.D	M8378-P-D(4)	SA	CI5(96)	15019310	
SM0423.S	M7546.D	M8379-P-D(4)	SA	CI5(96)	16473995	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA: FLAG:
SM0423.S	M7550.D	M8395-P-D(4)	SA	CI5(96)	14313584
SM0423.S	M7551.D	IE07	CCV	CI5(96)	17039195
SM0423.S	M7552.D	M8396-P-D(4)	SA	CI5(96)	15576981
SM0423.S	M7553.D	M8397-P-D(4)	SA	CI5(96)	15046552
SM0423.S	M7554.D	M8398-P-D(4)	SA	CI5(96)	15823580
SM0423.S	M7562.D	IE08	CCV	CI5(96)	19132613

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	28199596
SM0417.S	M7207.D	IE05	CS	Cl6(161)	27129752
SM0417.S	M7208.D	IE06	CS	Cl6(161)	29503850
SM0417.S	M7209.D	IE07	CS	Cl6(161)	34497986
SM0417.S	M7210.D	IE08	CS	Cl6(161)	34872167
SM0417.S	M7212.D	IE10	CS	Cl6(161)	28894537
				L3	29503850
				(+)	59007699
				(-)	14751925

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	30447371	
SM0423.S	M7507.D	IE07	CCV	Cl6(161)	40450051	
SM0423.S	M7508.D	CD586PB-P(0)	PB	Cl6(161)	36429176	
SM0423.S	M7509.D	CD587LCS-P(0)	LCS	Cl6(161)	38220438	
SM0423.S	M7510.D	M8157-P(2)	SA	Cl6(161)	33506285	
SM0423.S	M7511.D	M8169-P(2)	SA	Cl6(161)	32696655	
SM0423.S	M7512.D	M8172-P(2)	SA	Cl6(161)	41696747	
SM0423.S	M7513.D	M8173-P(2)	SA	Cl6(161)	32817040	
SM0423.S	M7514.D	M8173DUP-P(2)	QADU	Cl6(161)	31356312	
SM0423.S	M7515.D	M8174-P(2)	SA	Cl6(161)	31987965	
SM0423.S	M7516.D	M8374-P(2)	SA	Cl6(161)	41560755	
SM0423.S	M7517.D	M8375-P(2)	SA	Cl6(161)	31868339	
SM0423.S	M7518.D	IE08	CCV	Cl6(161)	41916063	
SM0423.S	M7519.D	M8376-P(2)	SA	Cl6(161)	34424303	
SM0423.S	M7520.D	M8377-P(2)	SA	Cl6(161)	29078770	
SM0423.S	M7521.D	M8378-P(2)	SA	Cl6(161)	27068352	
SM0423.S	M7522.D	M8379-P(2)	SA	Cl6(161)	30923957	
SM0423.S	M7523.D	M8389-P(2)	SA	Cl6(161)	33117738	
SM0423.S	M7524.D	M8390-P(2)	SA	Cl6(161)	36608343	
SM0423.S	M7525.D	M8390MS-P(0)	MS	Cl6(161)	38617300	
SM0423.S	M7526.D	M8390MSD-P(0)	MSD	Cl6(161)	40154673	
SM0423.S	M7527.D	M8391-P(2)	SA	Cl6(161)	37575236	
SM0423.S	M7528.D	M8395-P(2)	SA	Cl6(161)	25010599	
SM0423.S	M7529.D	IE08	CCV	Cl6(161)	46464449	
SM0423.S	M7530.D	M8396-P(2)	SA	Cl6(161)	28703854	
SM0423.S	M7531.D	M8397-P(2)	SA	Cl6(161)	28428383	
SM0423.S	M7532.D	M8398-P(2)	SA	Cl6(161)	24833214	
SM0423.S	M7533.D	M8399-P(2)	SA	Cl6(161)	33620717	
SM0423.S	M7540.D	IE07	CCV	Cl6(161)	44794389	
SM0423.S	M7544.D	M8377-P-D(4)	SA	Cl6(161)	41158929	
SM0423.S	M7545.D	M8378-P-D(4)	SA	Cl6(161)	37758922	
SM0423.S	M7546.D	M8379-P-D(4)	SA	Cl6(161)	42163722	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0423.S	M7550.D	M8395-P-D(4)	SA	Cl6(161)	34615467	
SM0423.S	M7551.D	IE07	CCV	Cl6(161)	42450268	
SM0423.S	M7552.D	M8396-P-D(4)	SA	Cl6(161)	39984413	
SM0423.S	M7553.D	M8397-P-D(4)	SA	Cl6(161)	37848133	
SM0423.S	M7554.D	M8398-P-D(4)	SA	Cl6(161)	40339284	
SM0423.S	M7562.D	IE08	CCV	Cl6(161)	49440212	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417F.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	2038180
SM0417.S	M7207.D	IE05	CS	CI5(96)	2103011
SM0417.S	M7208.D	IE06	CS	CI5(96)	2225995
SM0417.S	M7209.D	IE07	CS	CI5(96)	2400478
SM0417.S	M7210.D	IE08	CS	CI5(96)	2523572
SM0417.S	M7212.D	IE10	CS	CI5(96)	2539311

L3
(+)
(-)

2225995
4451990
1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	2508888	
SM0423.S	M7507.D	IE07	CCV	CI5(96)	3442942	
SM0423.S	M7508.D	CD586PB-P(0)	PB	CI5(96)	3500251	
SM0423.S	M7509.D	CD587LCS-P(0)	LCS	CI5(96)	3678408	
SM0423.S	M7510.D	M8157-P(2)	SA	CI5(96)	3606887	
SM0423.S	M7511.D	M8169-P(2)	SA	CI5(96)	3730347	
SM0423.S	M7512.D	M8172-P(2)	SA	CI5(96)	3413799	
SM0423.S	M7513.D	M8173-P(2)	SA	CI5(96)	3821753	
SM0423.S	M7514.D	M8173DUP-P(2)	QADU	CI5(96)	3818478	
SM0423.S	M7515.D	M8174-P(2)	SA	CI5(96)	3598087	
SM0423.S	M7516.D	M8374-P(2)	SA	CI5(96)	3993606	
SM0423.S	M7517.D	M8375-P(2)	SA	CI5(96)	3642557	
SM0423.S	M7518.D	IE08	CCV	CI5(96)	3718834	
SM0423.S	M7519.D	M8376-P(2)	SA	CI5(96)	3706957	
SM0423.S	M7520.D	M8377-P(2)	SA	CI5(96)	3661218	
SM0423.S	M7522.D	M8379-P(2)	SA	CI5(96)	3608786	
SM0423.S	M7523.D	M8389-P(2)	SA	CI5(96)	3576563	
SM0423.S	M7524.D	M8390-P(2)	SA	CI5(96)	3841608	
SM0423.S	M7525.D	M8390MS-P(0)	MS	CI5(96)	3712111	
SM0423.S	M7526.D	M8390MSD-P(0)	MSD	CI5(96)	3815342	
SM0423.S	M7527.D	M8391-P(2)	SA	CI5(96)	3562613	
SM0423.S	M7529.D	IE08	CCV	CI5(96)	3751383	
SM0423.S	M7530.D	M8396-P(2)	SA	CI5(96)	3170879	
SM0423.S	M7533.D	M8399-P(2)	SA	CI5(96)	3467952	
SM0423.S	M7540.D	IE07	CCV	CI5(96)	3843679	
SM0423.S	M7545.D	M8378-P-D(4)	SA	CI5(96)	3214494	
SM0423.S	M7550.D	M8395-P-D(4)	SA	CI5(96)	2880283	
SM0423.S	M7551.D	IE07	CCV	CI5(96)	3751725	
SM0423.S	M7553.D	M8397-P-D(4)	SA	CI5(96)	2938973	
SM0423.S	M7554.D	M8398-P-D(4)	SA	CI5(96)	2927377	
SM0423.S	M7562.D	IE08	CCV	CI5(96)	3597732	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0496

METHOD: MM0417F.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12872032
SM0417.S	M7207.D	IE05	CS	CI5(96)	13386960
SM0417.S	M7208.D	IE06	CS	CI5(96)	13612237
SM0417.S	M7209.D	IE07	CS	CI5(96)	14869473
SM0417.S	M7210.D	IE08	CS	CI5(96)	15494530
SM0417.S	M7212.D	IE10	CS	CI5(96)	15194166

L3 13612237
(+) 27224474
(-) 6806118

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13936712	
SM0423.S	M7507.D	IE07	CCV	CI5(96)	16878951	
SM0423.S	M7508.D	CD586PB-P(0)	PB	CI5(96)	15534506	
SM0423.S	M7509.D	CD587LCS-P(0)	LCS	CI5(96)	16362055	
SM0423.S	M7510.D	M8157-P(2)	SA	CI5(96)	14908515	
SM0423.S	M7511.D	M8169-P(2)	SA	CI5(96)	14801084	
SM0423.S	M7512.D	M8172-P(2)	SA	CI5(96)	17180107	
SM0423.S	M7513.D	M8173-P(2)	SA	CI5(96)	14464983	
SM0423.S	M7514.D	M8173DUP-P(2)	QADU	CI5(96)	15214332	
SM0423.S	M7515.D	M8174-P(2)	SA	CI5(96)	17393537	
SM0423.S	M7516.D	M8374-P(2)	SA	CI5(96)	16968250	
SM0423.S	M7517.D	M8375-P(2)	SA	CI5(96)	14592652	
SM0423.S	M7518.D	IE08	CCV	CI5(96)	17789588	
SM0423.S	M7519.D	M8376-P(2)	SA	CI5(96)	15366104	
SM0423.S	M7520.D	M8377-P(2)	SA	CI5(96)	17154942	
SM0423.S	M7522.D	M8379-P(2)	SA	CI5(96)	14094583	
SM0423.S	M7523.D	M8389-P(2)	SA	CI5(96)	15310743	
SM0423.S	M7524.D	M8390-P(2)	SA	CI5(96)	15551885	
SM0423.S	M7525.D	M8390MS-P(0)	MS	CI5(96)	16394768	
SM0423.S	M7526.D	M8390MSD-P(0)	MSD	CI5(96)	17197358	
SM0423.S	M7527.D	M8391-P(2)	SA	CI5(96)	16022197	
SM0423.S	M7529.D	IE08	CCV	CI5(96)	19209692	
SM0423.S	M7530.D	M8396-P(2)	SA	CI5(96)	12072108	
SM0423.S	M7533.D	M8399-P(2)	SA	CI5(96)	14510531	
SM0423.S	M7540.D	IE07	CCV	CI5(96)	17750585	
SM0423.S	M7545.D	M8378-P-D(4)	SA	CI5(96)	15073272	
SM0423.S	M7550.D	M8395-P-D(4)	SA	CI5(96)	14412344	
SM0423.S	M7551.D	IE07	CCV	CI5(96)	17017851	
SM0423.S	M7553.D	M8397-P-D(4)	SA	CI5(96)	15072112	
SM0423.S	M7554.D	M8398-P-D(4)	SA	CI5(96)	15898942	
SM0423.S	M7562.D	IE08	CCV	CI5(96)	19215719	

BATTELLE - DUXBURY OPERATIONS SAMPLE PREPARATION RECORDS

<u>Project Title(s)</u>	<u>Project No.(s)</u>
USACE/NAE - New Bedford Harbor LTM Study	100053747
14-0496	
USACE-NAE New Bedford Harbor LTM Study	
SED	
SOP Numbers (see workplan for modifications)	
ExtractionSOP No.	5-192
CleanupSOP No.	5-327
CleanupSOP No.	5-328

This Batch Contains The Following Samples:				
CD586PB-P	M8173-P	M8377-P	M8390MSD-P	M8399-P
CD587LCS-P	M8173DUP-P	M8378-P	M8391-P	
M8157-P	M8174-P	M8379-P	M8395-P	
M8169-P	M8374-P	M8389-P	M8396-P	
M8171-P	M8375-P	M8390-P	M8397-P	
M8172-P	M8376-P	M8390MS-P	M8398-P	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Samuel Guimaraes

Approved By:	Date	Initials
Samuel Guimaraes	11/06/2014	SG

BATTELLE - DUXBURY OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Requested On/By: 10/20/2014 SG	Purpose: Sample Preparation
Relinquished On/By: 10/20/2014 MDS	Last Activity: Return
Accepted On/By: 10/20/2014 SG	Returned On/To: 10/20/2014 MDS
Stored In Facility: Sample Preparation	Returned To Facility: Custody: NA
Stored Until: 10/20/2014	
Stored Comment: NA	Returned Comment: NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	M8157	1	--	Intact	NA
2	M8169	1	--	Intact	NA
3	M8171	1	--	Intact	NA
4	M8172	1	--	Intact	NA
5	M8173	1	--	Intact	NA
6	M8174	1	--	Intact	NA
7	M8374	1	--	Intact	NA
8	M8375	1	--	Intact	NA
9	M8376	1	--	Intact	NA
10	M8377	1	--	Intact	NA
11	M8378	1	--	Intact	NA
12	M8379	1	--	Intact	NA
13	M8389	1	--	Intact	NA
14	M8390	1	--	Intact	NA
15	M8391	1	--	Intact	NA
16	M8395	1	--	Intact	NA
17	M8396	1	--	Intact	NA
18	M8397	1	--	Intact	NA
19	M8398	1	--	Intact	NA
20	M8399	1	--	Intact	NA
Total Samples		20		* "C" = Consumed Container	

BATTELLE - DUXBURY OPERATIONS SAMPLE IDENTIFICATION PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Description
CD586PB-P	Procedural Blank
CD587LCS-P	Laboratory Control Sample
M8157-P	NBH14-0021
M8169-P	NBH14-0077
M8171-P	NBH14-0085
M8172-P	NBH14-0089
M8173-P	NBH14-0093
M8173DUP-P	Lab Duplicate of NBH14-0093
M8174-P	NBH14-0097
M8374-P	NBH14-0269
M8375-P	NBH14-0273
M8376-P	NBH14-0277
M8377-P	NBH14-0281
M8378-P	NBH14-0285
M8379-P	NBH14-0289
M8389-P	NBH14-0109
M8390-P	NBH14-0113
M8390MS-P	Matrix Spike of NBH14-0113
M8390MSD-P	Matrix Spike Duplicate of NBH14-0113
M8391-P	NBH14-0117
M8395-P	NBH14-0133

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

**BATTELLE - DUXBURY OPERATIONS
SAMPLE IDENTIFICATION PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

**USACE-NAE New Bedford Harbor LTM Study
SED**

Sample ID	Description
M8396-P	NBH14-0137
M8397-P	NBH14-0141
M8398-P	NBH14-0145
M8399-P	NBH14-0149

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CD586PB-P	NA	--	NA	NA	NA	9.96	98.30	1.70	9.79
CD587LCS-P	NA	--	NA	NA	NA	10.01	98.30	1.70	9.84
M8157-P	1	--	1.11	2.91	2.85	2.50	96.67	3.33	2.42
M8169-P	1	--	1.12	2.97	2.94	10.10	98.38	1.62	9.94
M8171-P	1	--	1.11	3.09	3.05	10.06	97.98	2.02	9.86
M8172-P	1	--	1.11	3.01	2.99	10.07	98.95	1.05	9.96
M8173-P	1	--	1.09	3.06	3.04	9.99	98.98	1.02	9.89
M8173DUP-P	1	--	1.11	2.99	2.97	10.19	98.94	1.06	10.08
M8174-P	1	--	1.11	2.96	2.92	10.05	97.84	2.16	9.83
M8374-P	1	--	1.11	3.06	3.04	10.09	98.97	1.03	9.99
M8375-P	1	--	1.10	3.03	3.01	10.00	98.96	1.04	9.90
M8376-P	1	--	1.10	2.89	2.81	10.00	95.53	4.47	9.55
M8377-P	1	--	1.11	2.97	2.94	10.12	98.39	1.61	9.96
M8378-P	1	--	1.10	3.03	2.96	9.98	96.37	3.63	9.62
M8379-P	1	--	1.10	3.04	3.03	10.00	99.48	0.52	9.95
M8389-P	1	--	1.10	3.03	2.94	10.01	95.34	4.66	9.54
M8390-P	1	--	1.11	3.06	3.06	10.06	100.00	0.00	10.06
M8390MS-P	1	--	1.12	3.01	3.00	5.03	99.47	0.53	5.00
M8390MSD-P	1	--	1.09	2.98	2.98	5.14	100.00	0.00	5.14
M8391-P	1	--	1.09	2.98	2.98	10.07	100.00	0.00	10.07
M8395-P	1	--	1.11	2.92	2.90	10.01	98.90	1.10	9.90
M8396-P	1	--	1.11	3.05	2.98	10.03	96.39	3.61	9.67
M8397-P	1	--	1.10	2.98	2.98	10.05	100.00	0.00	10.05

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
M8398-P	1	--	1.09	3.02	3.01	10.01	99.48	0.52	9.96
M8399-P	1	--	1.10	3.02	3.01	2.53	99.48	0.52	2.52

Validation of: Wet Wt.	Performed: 11/06/14 SG
----------------------------------	----------------------------------

Sample ID:	Comments:	Reference:
CD586PB-P	Average of percent dry weights from authentic samples in Batch No. 14-0496 USACE-NAE New Bedford Harbor LTM Study	NA
CD587LCS-P	Average of percent dry weights from authentic samples in Batch No. 14-0496 USACE-NAE New Bedford Harbor LTM Study	NA

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CD586PB-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
CD587LCS-P	HX10	LCS/MS	8	75	10/31/14 SG	KAW	NA
CD587LCS-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8157-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8169-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8171-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8172-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8173-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8173DUP-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8174-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8374-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8375-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8376-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8377-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8378-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8379-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8389-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8390-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8390MS-P	HX10	LCS/MS	8	125	10/31/14 SG	KAW	NA
M8390MS-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8390MSD-P	HX10	LCS/MS	8	125	10/31/14 SG	KAW	NA
M8390MSD-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8391-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8395-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8396-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8397-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA

BATTELLE - DUXBURY OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
M8398-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA
M8399-P	ID59	SIS	4	400	10/31/14 SG	KAW	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
HX10	Pipette	G0400231B
ID59	Pipette	B1100330B



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
SAMPLE EXTRACTION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
CD586PB-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
CD587LCS-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8157-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8169-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8171-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8172-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8173-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8173DUP-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8174-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8374-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8375-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8376-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8377-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8378-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8379-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8389-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8390-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8390MS-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8390MSD-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8391-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8395-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8396-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8397-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8398-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA
M8399-P	10/31/14 KAW	10/31/14 KAW	10/31/14 SG	NA	NA	NA	NA

BATTELLE - DUXBURY OPERATIONS SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
-----------	------------------	-------------------	------------------	----------	-----------	-------	---------

Reagents:

Name	Expires	Lot No	Procedure	Comments
Sodium Sulfate	11/10/14	0000084928	Muffled at 400 °C for more than 4 hours. Expiration date changed from original after reagent was consumed.	

Solvents:

Name	Lot No	Comments
DCM cycletainer	0000093995	
Hexane	0000078260	Solvent exchanged during concentration.



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT CLEANUP FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
CD586PB-P(0)	11/04/14	SG	NA
CD587LCS-P(0)	11/04/14	SG	NA
M8157-P(0)	11/04/14	SG	NA
M8169-P(0)	11/04/14	SG	NA
M8172-P(0)	11/04/14	SG	NA
M8173-P(0)	11/04/14	SG	NA
M8173DUP-P(0)	11/04/14	SG	NA
M8174-P(0)	11/04/14	SG	NA
M8374-P(0)	11/04/14	SG	NA
M8375-P(0)	11/04/14	SG	NA
M8376-P(0)	11/04/14	SG	NA
M8377-P(0)	11/04/14	SG	NA
M8378-P(0)	11/04/14	SG	NA
M8379-P(0)	11/04/14	SG	NA
M8389-P(0)	11/04/14	SG	NA
M8390-P(0)	11/04/14	SG	NA
M8390MS-P(0)	11/04/14	SG	NA
M8390MSD-P(0)	11/04/14	SG	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT CLEANUP FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Comments
M8391-P(0)	11/04/14	SG	NA
M8395-P(0)	11/04/14	SG	NA
M8396-P(0)	11/04/14	SG	NA
M8397-P(0)	11/04/14	SG	NA
M8398-P(0)	11/04/14	SG	NA
M8399-P(0)	11/04/14	SG	NA

Cleanup:

Copper Cleanup

Reagents:

Name	Expires	Lot No	Procedure
Copper, granular, 10-40 mesh	10/22/19	MKBT0084V	NA
Activated Copper	11/05/14	MKBT0084V	Activated according to Cleanup SOP (5-328)

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
CD586PB-P(0)	11/03/14	SG	NA
CD587LCS-P(0)	11/03/14	SG	NA
M8157-P(0)	11/03/14	SG	NA
M8169-P(0)	11/03/14	SG	NA
M8171-P(0)	11/03/14	SG	NA
M8172-P(0)	11/03/14	SG	NA
M8173-P(0)	11/03/14	SG	NA
M8173DUP-P(0)	11/03/14	SG	NA
M8174-P(0)	11/03/14	SG	NA
M8374-P(0)	11/03/14	SG	NA
M8375-P(0)	11/03/14	SG	NA
M8376-P(0)	11/03/14	SG	NA
M8377-P(0)	11/03/14	SG	NA
M8378-P(0)	11/03/14	SG	NA
M8379-P(0)	11/03/14	SG	NA
M8389-P(0)	11/03/14	SG	NA
M8390-P(0)	11/03/14	SG	NA

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract Id	Date	Init.	Sample Specific Comments
M8390MS-P(0)	11/03/14	SG	NA
M8390MSD-P(0)	11/03/14	SG	NA
M8391-P(0)	11/03/14	SG	NA
M8395-P(0)	11/03/14	SG	NA
M8396-P(0)	11/03/14	SG	NA
M8397-P(0)	11/03/14	SG	NA
M8398-P(0)	11/03/14	SG	NA
M8399-P(0)	11/03/14	SG	NA

Column Diameter: 13 mm **Procedure Comment:**

Elution Volume: 15 mL

Solvents

Name	Lot No
Hexane	0000078260

Reagents

Weight g	Name	Expires	Lot No	Procedure
1.00	Florisil	11/05/14	801139- 1991484	Baked at 110 °C for more than 24 hours (SPE columns not baked)

Fractions



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CD586PB-P	0	--	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
CD587LCS-P	0	--	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8157-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8157-P	2	--	11/5/2014 11:21:00 AM	M8157-P	0	1000	950	1.053	1.053	11/05/14 SG
M8157-P-D	3	C	11/5/2014 11:21:00 AM	M8157-P	0	1000	50	20.000	20.000	11/05/14 SG
M8157-P-D	4	--	11/5/2014 11:38:00 AM	M8157-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8157-P-D	5	--	11/5/2014 11:38:00 AM	M8157-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8169-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8169-P	2	--	11/5/2014 11:21:00 AM	M8169-P	0	1000	950	1.053	1.053	11/05/14 SG
M8169-P-D	3	C	11/5/2014 11:21:00 AM	M8169-P	0	1000	50	20.000	20.000	11/05/14 SG
M8169-P-D	4	--	11/5/2014 11:38:00 AM	M8169-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8169-P-D	5	--	11/5/2014 11:38:00 AM	M8169-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8171-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8172-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8172-P	2	--	11/5/2014 11:21:00 AM	M8172-P	0	1000	950	1.053	1.053	11/05/14 SG
M8172-P-D	3	C	11/5/2014 11:21:00 AM	M8172-P	0	1000	50	20.000	20.000	11/05/14 SG
M8172-P-D	4	--	11/5/2014 11:38:00 AM	M8172-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8172-P-D	5	--	11/5/2014 11:38:00 AM	M8172-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8173-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8173-P	2	--	11/5/2014 11:21:00 AM	M8173-P	0	1000	950	1.053	1.053	11/05/14 SG
M8173-P-D	3	C	11/5/2014 11:21:00 AM	M8173-P	0	1000	50	20.000	20.000	11/05/14 SG
M8173-P-D	4	--	11/5/2014 11:38:00 AM	M8173-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8173-P-D	5	--	11/5/2014 11:38:00 AM	M8173-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8173DUP-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8173DUP-P	2	--	11/5/2014 11:21:00 AM	M8173DUP-P	0	1000	950	1.053	1.053	11/05/14 SG
M8173DUP-P-D	3	C	11/5/2014 11:21:00 AM	M8173DUP-P	0	1000	50	20.000	20.000	11/05/14 SG
M8173DUP-P-D	4	--	11/5/2014 11:38:00 AM	M8173DUP-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8173DUP-P-D	5	--	11/5/2014 11:38:00 AM	M8173DUP-P-D	3	1000	50	20.000	400.000	11/05/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8174-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8174-P	2	--	11/5/2014 11:21:00 AM	M8174-P	0	1000	950	1.053	1.053	11/05/14 SG
M8174-P-D	3	C	11/5/2014 11:21:00 AM	M8174-P	0	1000	50	20.000	20.000	11/05/14 SG
M8174-P-D	4	--	11/5/2014 11:38:00 AM	M8174-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8174-P-D	5	--	11/5/2014 11:38:00 AM	M8174-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8374-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8374-P	2	--	11/5/2014 11:21:00 AM	M8374-P	0	1000	950	1.053	1.053	11/05/14 SG
M8374-P-D	3	C	11/5/2014 11:21:00 AM	M8374-P	0	1000	50	20.000	20.000	11/05/14 SG
M8374-P-D	4	--	11/5/2014 11:38:00 AM	M8374-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8374-P-D	5	--	11/5/2014 11:38:00 AM	M8374-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8375-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8375-P	2	--	11/5/2014 11:21:00 AM	M8375-P	0	1000	950	1.053	1.053	11/05/14 SG
M8375-P-D	3	C	11/5/2014 11:21:00 AM	M8375-P	0	1000	50	20.000	20.000	11/05/14 SG
M8375-P-D	4	--	11/5/2014 11:38:00 AM	M8375-P-D	3	1000	950	1.053	21.053	11/05/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8375-P-D	5	--	11/5/2014 11:38:00 AM	M8375-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8376-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8376-P	2	--	11/5/2014 11:21:00 AM	M8376-P	0	1000	950	1.053	1.053	11/05/14 SG
M8376-P-D	3	C	11/5/2014 11:21:00 AM	M8376-P	0	1000	50	20.000	20.000	11/05/14 SG
M8376-P-D	4	--	11/5/2014 11:38:00 AM	M8376-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8376-P-D	5	--	11/5/2014 11:38:00 AM	M8376-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8377-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8377-P	2	--	11/5/2014 11:21:00 AM	M8377-P	0	1000	950	1.053	1.053	11/05/14 SG
M8377-P-D	3	C	11/5/2014 11:21:00 AM	M8377-P	0	1000	50	20.000	20.000	11/05/14 SG
M8377-P-D	4	--	11/5/2014 11:38:00 AM	M8377-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8377-P-D	5	--	11/5/2014 11:38:00 AM	M8377-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8378-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8378-P	2	--	11/5/2014 11:21:00 AM	M8378-P	0	1000	950	1.053	1.053	11/05/14 SG
M8378-P-D	3	C	11/5/2014 11:21:00 AM	M8378-P	0	1000	50	20.000	20.000	11/05/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8378-P-D	4	--	11/5/2014 11:38:00 AM	M8378-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8378-P-D	5	--	11/5/2014 11:38:00 AM	M8378-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8379-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8379-P	2	--	11/5/2014 11:21:00 AM	M8379-P	0	1000	950	1.053	1.053	11/05/14 SG
M8379-P-D	3	C	11/5/2014 11:21:00 AM	M8379-P	0	1000	50	20.000	20.000	11/05/14 SG
M8379-P-D	4	--	11/5/2014 11:38:00 AM	M8379-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8379-P-D	5	--	11/5/2014 11:38:00 AM	M8379-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8389-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8389-P	2	--	11/5/2014 11:21:00 AM	M8389-P	0	1000	950	1.053	1.053	11/05/14 SG
M8389-P-D	3	C	11/5/2014 11:21:00 AM	M8389-P	0	1000	50	20.000	20.000	11/05/14 SG
M8389-P-D	4	--	11/5/2014 11:38:00 AM	M8389-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8389-P-D	5	--	11/5/2014 11:38:00 AM	M8389-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8390-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8390-P	2	--	11/5/2014 11:21:00 AM	M8390-P	0	1000	950	1.053	1.053	11/05/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8390-P-D	3	C	11/5/2014 11:21:00 AM	M8390-P	0	1000	50	20.000	20.000	11/05/14 SG
M8390-P-D	4	--	11/5/2014 11:38:00 AM	M8390-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8390-P-D	5	--	11/5/2014 11:38:00 AM	M8390-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8390MS-P	0	--	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8390MSD-P	0	--	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8391-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8391-P	2	--	11/5/2014 11:21:00 AM	M8391-P	0	1000	950	1.053	1.053	11/05/14 SG
M8391-P-D	3	C	11/5/2014 11:21:00 AM	M8391-P	0	1000	50	20.000	20.000	11/05/14 SG
M8391-P-D	4	--	11/5/2014 11:38:00 AM	M8391-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8391-P-D	5	--	11/5/2014 11:38:00 AM	M8391-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8395-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8395-P	2	--	11/5/2014 11:21:00 AM	M8395-P	0	1000	950	1.053	1.053	11/05/14 SG
M8395-P-D	3	C	11/5/2014 11:21:00 AM	M8395-P	0	1000	50	20.000	20.000	11/05/14 SG
M8395-P-D	4	--	11/5/2014 11:38:00 AM	M8395-P-D	3	1000	950	1.053	21.053	11/05/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8395-P-D	5	--	11/5/2014 11:38:00 AM	M8395-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8396-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8396-P	2	--	11/5/2014 11:21:00 AM	M8396-P	0	1000	950	1.053	1.053	11/05/14 SG
M8396-P-D	3	C	11/5/2014 11:21:00 AM	M8396-P	0	1000	50	20.000	20.000	11/05/14 SG
M8396-P-D	4	--	11/5/2014 11:38:00 AM	M8396-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8396-P-D	5	--	11/5/2014 11:38:00 AM	M8396-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8397-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8397-P	2	--	11/5/2014 11:21:00 AM	M8397-P	0	1000	950	1.053	1.053	11/05/14 SG
M8397-P-D	3	C	11/5/2014 11:21:00 AM	M8397-P	0	1000	50	20.000	20.000	11/05/14 SG
M8397-P-D	4	--	11/5/2014 11:38:00 AM	M8397-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8397-P-D	5	--	11/5/2014 11:38:00 AM	M8397-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8398-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8398-P	2	--	11/5/2014 11:21:00 AM	M8398-P	0	1000	950	1.053	1.053	11/05/14 SG
M8398-P-D	3	C	11/5/2014 11:21:00 AM	M8398-P	0	1000	50	20.000	20.000	11/05/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8398-P-D	4	--	11/5/2014 11:38:00 AM	M8398-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8398-P-D	5	--	11/5/2014 11:38:00 AM	M8398-P-D	3	1000	50	20.000	400.000	11/05/14 SG
M8399-P	0	C	10/31/2014 10:36:00 AM	NA		NA	NA	1.000	1.000	10/31/14 KAW
M8399-P	2	--	11/5/2014 11:21:00 AM	M8399-P	0	1000	950	1.053	1.053	11/05/14 SG
M8399-P-D	3	C	11/5/2014 11:21:00 AM	M8399-P	0	1000	50	20.000	20.000	11/05/14 SG
M8399-P-D	4	--	11/5/2014 11:38:00 AM	M8399-P-D	3	1000	950	1.053	21.053	11/05/14 SG
M8399-P-D	5	--	11/5/2014 11:38:00 AM	M8399-P-D	3	1000	50	20.000	400.000	11/05/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
CD586PB-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
CD587LCS-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8157-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8157-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8157-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8169-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8169-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8169-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8172-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8172-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8172-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8173-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8173-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8173-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8173DUP-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8173DUP-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8173DUP-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8174-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8174-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8174-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8374-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8374-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8374-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8375-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8375-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8375-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8376-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8376-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8376-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8377-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8377-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8377-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8378-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8378-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8378-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8379-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8379-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8379-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8389-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8389-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8389-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8390-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8390-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8390-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8390MS-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8390MSD-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8391-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8391-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8391-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8395-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8395-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8395-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8396-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8396-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8396-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8397-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8397-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
M8397-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8398-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8398-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8398-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT
M8399-P(0)	900	100	IE11	100	1	1000	1.000	11/05/14 SG	JCT
M8399-P-D(3)	905	95	IE11	100	1	1000	20.000	11/05/14 SG	JCT
M8399-P-D(5)	905	95	IE11	100	1	1000	400.000	11/05/14 SG	JCT

Syringes/Pipettes Used:

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
SAMPLE SPECIFIC COMMENTS**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Sample ID:	Comment:	Date/Initials:
CD586PB-P	NA	NA
CD587LCS-P	NA	NA
M8157-P	NA	NA
M8169-P	NA	NA
M8171-P	During Florisil columns, the sample did not elute into the 40 mL vial. Per order of project manager, the sample will added to batch 14-0497 and caught out with the rest of the batch.	11/03/14 SG
M8172-P	NA	NA
M8173-P	NA	NA
M8173DUP-P	NA	NA
M8174-P	NA	NA
M8374-P	NA	NA
M8375-P	NA	NA
M8376-P	NA	NA
M8377-P	NA	NA
M8378-P	NA	NA
M8379-P	NA	NA
M8389-P	NA	NA
M8390-P	NA	NA
M8390MS-P	NA	NA
M8390MSD-P	NA	NA
M8391-P	NA	NA
M8395-P	NA	NA
M8396-P	NA	NA
M8397-P	NA	NA
M8398-P	NA	NA
M8399-P	NA	NA



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Purpose:	GC/ECD TRANSFER	Last Activity:	Prep->Inst
Relinquished On/By:	Nov 5 2014 2:03PM SG	Received On/By:	Nov 5 2014 2:03PM RR
Relinquished From:	Sample Preparation: NA	Received Location:	GC Laboratory: NA
Relinquish Comment:	NA	Received Comment:	NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CD586PB-P(0)	1000	1	Intact	NA
2	CD587LCS-P(0)	1000	1	Intact	NA
3	M8157-P(2)	1000	1.053	Intact	NA
4	M8157-P-D(4)	1000	21.053	Intact	NA
5	M8157-P-D(5)	1000	400	Intact	NA
6	M8169-P(2)	1000	1.053	Intact	NA
7	M8169-P-D(4)	1000	21.053	Intact	NA
8	M8169-P-D(5)	1000	400	Intact	NA
9	M8172-P(2)	1000	1.053	Intact	NA
10	M8172-P-D(4)	1000	21.053	Intact	NA
11	M8172-P-D(5)	1000	400	Intact	NA
12	M8173-P(2)	1000	1.053	Intact	NA
13	M8173-P-D(4)	1000	21.053	Intact	NA
14	M8173-P-D(5)	1000	400	Intact	NA
15	M8173DUP-P(2)	1000	1.053	Intact	NA
16	M8173DUP-P-D(4)	1000	21.053	Intact	NA
17	M8173DUP-P-D(5)	1000	400	Intact	NA
18	M8174-P(2)	1000	1.053	Intact	NA
19	M8174-P-D(4)	1000	21.053	Intact	NA
20	M8174-P-D(5)	1000	400	Intact	NA
21	M8374-P(2)	1000	1.053	Intact	NA
22	M8374-P-D(4)	1000	21.053	Intact	NA
23	M8374-P-D(5)	1000	400	Intact	NA
24	M8375-P(2)	1000	1.053	Intact	NA
25	M8375-P-D(4)	1000	21.053	Intact	NA
26	M8375-P-D(5)	1000	400	Intact	NA
27	M8376-P(2)	1000	1.053	Intact	NA
28	M8376-P-D(4)	1000	21.053	Intact	NA



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

29	M8376-P-D(5)	1000	400	Intact	NA
30	M8377-P(2)	1000	1.053	Intact	NA
31	M8377-P-D(4)	1000	21.053	Intact	NA
32	M8377-P-D(5)	1000	400	Intact	NA
33	M8378-P(2)	1000	1.053	Intact	NA
34	M8378-P-D(4)	1000	21.053	Intact	NA
35	M8378-P-D(5)	1000	400	Intact	NA
36	M8379-P(2)	1000	1.053	Intact	NA
37	M8379-P-D(4)	1000	21.053	Intact	NA
38	M8379-P-D(5)	1000	400	Intact	NA
39	M8389-P(2)	1000	1.053	Intact	NA
40	M8389-P-D(4)	1000	21.053	Intact	NA
41	M8389-P-D(5)	1000	400	Intact	NA
42	M8390-P(2)	1000	1.053	Intact	NA
43	M8390-P-D(4)	1000	21.053	Intact	NA
44	M8390-P-D(5)	1000	400	Intact	NA
45	M8390MS-P(0)	1000	1	Intact	NA
46	M8390MSD-P(0)	1000	1	Intact	NA
47	M8391-P(2)	1000	1.053	Intact	NA
48	M8391-P-D(4)	1000	21.053	Intact	NA
49	M8391-P-D(5)	1000	400	Intact	NA
50	M8395-P(2)	1000	1.053	Intact	NA
51	M8395-P-D(4)	1000	21.053	Intact	NA
52	M8395-P-D(5)	1000	400	Intact	NA
53	M8396-P(2)	1000	1.053	Intact	NA
54	M8396-P-D(4)	1000	21.053	Intact	NA
55	M8396-P-D(5)	1000	400	Intact	NA
56	M8397-P(2)	1000	1.053	Intact	NA
57	M8397-P-D(4)	1000	21.053	Intact	NA
58	M8397-P-D(5)	1000	400	Intact	NA
59	M8398-P(2)	1000	1.053	Intact	NA
60	M8398-P-D(4)	1000	21.053	Intact	NA
61	M8398-P-D(5)	1000	400	Intact	NA
62	M8399-P(2)	1000	1.053	Intact	NA
63	M8399-P-D(4)	1000	21.053	Intact	NA
64	M8399-P-D(5)	1000	400	Intact	NA

Total Extracts: 64

**BATTELLE - DUXBURY OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0496

USACE-NAE New Bedford Harbor LTM Study

SED

Entered By:

On:

Task Leader Approval:

On:

Supervisor Approval:

On:

PM Approval:

On:

INJECTION LOG

Directory I:\M\DATA\SM0417\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7203.D	HEXANE		10-20-2014 05:18 PM
2	2	M7204.D	HF94		10-20-2014 06:02 PM
3	3	M7205.D	IE03		10-20-2014 06:46 PM
4	4	M7206.D	IE04	Level not used.	10-20-2014 07:31 PM
5	5	M7207.D	IE05		10-20-2014 08:16 PM
6	6	M7208.D	IE06	RR 11/18/14	10-20-2014 09:00 PM
7	7	M7209.D	IE07		10-20-2014 09:45 PM
8	8	M7210.D	IE08		10-20-2014 10:29 PM
9	9	M7211.D	IE09	Level not used.	10-20-2014 11:14 PM
10	10	M7212.D	IE10		10-20-2014 11:58 PM
11	11	M7213.D	HY06 ICC		10-21-2014 12:43 AM
12	12	M7214.D	HF94		10-21-2014 01:28 AM
13	13	M7215.D	IE08 mid		10-21-2014 02:12 AM
14	14	M7216.D	CD598PB-P(3)	Procedural Blank 5-128 14	10-21-2014 02:57 AM
15	15	M7217.D	CD599LCS-P(5)	Laboratory Control Sample	10-21-2014 03:42 AM
16	16	M7218.D	CD600SRM-P(5)	Standard Reference Materi	10-21-2014 04:26 AM
17	17	M7219.D	M7754-P(5)	B537PreMnA 5-128 14-0498	10-21-2014 05:11 AM
18	18	M7220.D	M7755-P(5)	B537PreMnB 5-128 14-0498	10-21-2014 05:55 AM
19	19	M7221.D	M7756-P(5)	B537PreMnC 5-128 14-0498	10-21-2014 06:40 AM
20	20	M7222.D	M7756MS-P(5)	Matrix Spike of B537PreMn	10-21-2014 07:25 AM
21	21	M7223.D	M7756MSD-P(5)	Matrix Spike Duplicate of	10-21-2014 08:09 AM
22	22	M7224.D	M7757-P(5)	B537R01MnA 5-128 14-0498	10-21-2014 08:54 AM
23	23	M7225.D	M7758-P(5)	B537R01MnB 5-128 14-0498	10-21-2014 09:38 AM
24	24	M7226.D	HF94		10-21-2014 10:22 AM
25	25	M7227.D	IE08 mid		10-21-2014 11:07 AM
26	26	M7228.D	M7759-P(5)	B537R01MnC 5-128 14-0498	10-21-2014 11:52 AM
27	27	M7229.D	M7760-P(5)	B537R01MnD 5-128 14-0498	10-21-2014 12:36 PM
28	28	M7230.D	M7761-P(5)	B537R01MnE 5-128 14-0498	10-21-2014 01:21 PM
29	29	M7231.D	M7762-P(5)	B537S01MnA 5-128 14-0498	10-21-2014 02:05 PM
30	30	M7232.D	M7763-P(5)	B537S01MnB 5-128 14-0498	10-21-2014 02:50 PM
31	31	M7233.D	M7764-P(5)	B537S01MnC 5-128 14-0498	10-21-2014 03:35 PM
32	32	M7234.D	M7765-P(5)	B537S01MnD 5-128 14-0498	10-21-2014 04:19 PM
33	33	M7235.D	M7766-P(5)	B537S01MnE 5-128 14-0498	10-21-2014 05:04 PM
34	34	M7236.D	M7767-P(5)	B537S02MnA 5-128 14-0498	10-21-2014 05:48 PM
35	35	M7237.D	M7768-P(5)	B537S02MnB 5-128 14-0498	10-21-2014 06:33 PM
36	36	M7238.D	HF94		10-21-2014 07:17 PM
37	37	M7239.D	IE07 mid		10-21-2014 08:02 PM
38	38	M7240.D	M7768DUP-P(5)	Lab Duplicate of B537S02M	10-21-2014 08:46 PM
39	39	M7241.D	M7769-P(5)	B537S02MnC 5-128 14-0498	10-21-2014 09:31 PM
40	40	M7242.D	M7770-P(5)	B537S02MnD 5-128 14-0498	10-21-2014 10:16 PM
41	41	M7243.D	M7771-P(5)	B537S02MnE 5-128 14-0498	10-21-2014 11:00 PM
42	42	M7244.D	CD669PB-P(0)	Procedural Blank 5-128 14	10-21-2014 11:45 PM
43	43	M7245.D	CD670LCS-P(0)	Laboratory Control Sample	10-22-2014 12:29 AM
44	44	M7246.D	CD671LCS-D-P(0)	Laboratory Control Sample	10-22-2014 01:14 AM
45	45	M7247.D	M8926-P(0)	FLD20141014OSHCO-7-14-7E	10-22-2014 01:58 AM
46	46	M7248.D	M8928-P(0)	FSW20141014OSHCO-7-14-1 5	10-22-2014 02:43 AM
47	47	M7249.D	HF94		10-22-2014 03:28 AM
48	48	M7250.D	IE07 mid		10-22-2014 04:12 AM

INJECTION LOG

Directory I:\M\DATA\SM0423\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7506.D	HEXANE		11-7-2014 04:27 PM
2	2	M7507.D	IE07 mid		11-7-2014 05:12 PM
3	3	M7508.D	CD586PB-P(0)	Procedural Blank 5-128 14	11-7-2014 05:56 PM
4	4	M7509.D	CD587LCS-P(0)	Laboratory Control Sample	11-7-2014 06:40 PM
5	5	M7510.D	M8157-P(2)	NBH14-0021 5-128 14-0496	11-7-2014 07:25 PM
6	6	M7511.D	M8169-P(2)	NBH14-0077 5-128 14-0496	11-7-2014 08:09 PM
7	7	M7512.D	M8172-P(2)	NBH14-0089 5-128 14-0496	11-7-2014 08:54 PM
8	8	M7513.D	M8173-P(2)	NBH14-0093 5-128 14-0496	11-7-2014 09:39 PM
9	9	M7514.D	M8173DUP-P(2)	Lab Duplicate of NBH14-00	11-7-2014 10:24 PM
10	10	M7515.D	M8174-P(2)	NBH14-0097 5-128 14-0496	11-7-2014 11:09 PM
11	11	M7516.D	M8374-P(2)	NBH14-0269 5-128 14-0496	11-7-2014 11:54 PM
12	12	M7517.D	M8375-P(2)	NBH14-0273 5-128 14-0496	11-8-2014 12:38 AM
13	13	M7518.D	IE08 mid		11-8-2014 01:23 AM
14	14	M7519.D	M8376-P(2)	NBH14-0277 5-128 14-0496	11-8-2014 02:08 AM
15	15	M7520.D	M8377-P(2)	NBH14-0281 5-128 14-0496	11-8-2014 02:53 AM
16	16	M7521.D	M8378-P(2)	NBH14-0285 5-128 14-0496	11-8-2014 03:37 AM
17	17	M7522.D	M8379-P(2)	NBH14-0289 5-128 14-0496	11-8-2014 04:22 AM
18	18	M7523.D	M8389-P(2)	NBH14-0109 5-128 14-0496	11-8-2014 05:07 AM
19	19	M7524.D	M8390-P(2)	NBH14-0113 5-128 14-0496	11-8-2014 05:51 AM
20	20	M7525.D	M8390MS-P(0)	Matrix Spike of NBH14-011	11-8-2014 06:36 AM
21	21	M7526.D	M8390MSD-P(0)	Matrix Spike Duplicate of	11-8-2014 07:21 AM
22	22	M7527.D	M8391-P(2)	NBH14-0117 5-128 14-0496	11-8-2014 08:05 AM
23	23	M7528.D	M8395-P(2)	NBH14-0133 5-128 14-0496	11-8-2014 08:50 AM
24	24	M7529.D	IE08 mid		11-8-2014 09:35 AM
25	25	M7530.D	M8396-P(2)	NBH14-0137 5-128 14-0496	11-8-2014 10:20 AM
26	26	M7531.D	M8397-P(2)	NBH14-0141 5-128 14-0496	11-8-2014 11:05 AM
27	27	M7532.D	M8398-P(2)	NBH14-0145 5-128 14-0496	11-8-2014 11:49 AM
28	28	M7533.D	M8399-P(2)	NBH14-0149 5-128 14-0496	11-8-2014 12:34 PM
29	29	M7534.D	M8157-P-D(4)	NBH14-0021 5-128 14-0496	11-8-2014 01:19 PM
30	30	M7535.D	M8169-P-D(4)	NBH14-0077 5-128 14-0496	11-8-2014 02:03 PM
31	31	M7536.D	M8172-P-D(4)	NBH14-0089 5-128 14-0496	11-8-2014 02:47 PM
32	32	M7537.D	M8173-P-D(4)	NBH14-0093 5-128 14-0496	11-8-2014 03:32 PM
33	33	M7538.D	M8173DUP-P-D(4)	Lab Duplicate of NBH14-00	11-8-2014 04:17 PM
34	34	M7539.D	M8174-P-D(4)	NBH14-0097 5-128 14-0496	11-8-2014 05:01 PM
35	35	M7540.D	IE07 mid		11-8-2014 05:45 PM
36	36	M7541.D	M8374-P-D(4)	NBH14-0269 5-128 14-0496	11-8-2014 06:30 PM
37	37	M7542.D	M8375-P-D(4)	NBH14-0273 5-128 14-0496	11-8-2014 07:15 PM
38	38	M7543.D	M8376-P-D(4)	NBH14-0277 5-128 14-0496	11-8-2014 07:59 PM
39	39	M7544.D	M8377-P-D(4)	NBH14-0281 5-128 14-0496	11-8-2014 08:44 PM
40	40	M7545.D	M8378-P-D(4)	NBH14-0285 5-128 14-0496	11-8-2014 09:29 PM
41	41	M7546.D	M8379-P-D(4)	NBH14-0289 5-128 14-0496	11-8-2014 10:14 PM
42	42	M7547.D	M8389-P-D(4)	NBH14-0109 5-128 14-0496	11-8-2014 10:59 PM
43	43	M7548.D	M8390-P-D(4)	NBH14-0113 5-128 14-0496	11-8-2014 11:44 PM
44	44	M7549.D	M8391-P-D(4)	NBH14-0117 5-128 14-0496	11-9-2014 12:28 AM
45	45	M7550.D	M8395-P-D(4)	NBH14-0133 5-128 14-0496	11-9-2014 01:13 AM
46	46	M7551.D	IE07 mid		11-9-2014 01:58 AM
47	47	M7552.D	M8396-P-D(4)	NBH14-0137 5-128 14-0496	11-9-2014 02:43 AM
48	48	M7553.D	M8397-P-D(4)	NBH14-0141 5-128 14-0496	11-9-2014 03:27 AM
49	49	M7554.D	M8398-P-D(4)	NBH14-0145 5-128 14-0496	11-9-2014 04:12 AM
50	50	M7555.D	M8399-P-D(4)	NBH14-0149 5-128 14-0496	11-9-2014 04:57 AM
51	51	M7556.D	M8157-P-D(5)	NBH14-0021 5-128 14-0496	11-9-2014 05:42 AM
52	52	M7557.D	M8169-P-D(5)		11-9-2014 06:26 AM
53	53	M7558.D	M8172-P-D(5)		11-9-2014 07:11 AM
54	54	M7559.D	M8173-P-D(5)		11-9-2014 07:55 AM
55	55	M7560.D	M8173DUP-P-D(5)		11-9-2014 08:40 AM
56	56	M7561.D	M8174-P-D(5)		11-9-2014 09:24 AM
57	57	M7562.D	IE08 mid	(1) Dilutions not needed. RR 11/24/14	11-9-2014 10:09 AM
58	58	M7563.D	M8374-P-D(5)		11-9-2014 10:53 AM
59	59	M7564.D	M8375-P-D(5)		11-9-2014 11:38 AM
60	60	M7565.D	M8376-P-D(5)		11-9-2014 12:22 PM
61	61	M7566.D	M8377-P-D(5)		11-9-2014 01:07 PM

Calibration Response Factor Report

Batch: 14-0496 **Project Test Code:** Master 128(S) RFs validated CRD 12/10/2014
Data Set: DP-14-0678 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Type:	Column:	MAD:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
					IE03	IE05	IE06	IE07	IE08	IE10	-	-	Levels:					
					M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D	-	-						
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl2(8)	1	Y	1.02677	0.82499	0.74685	0.63118	0.55904	0.41512	-	-	6	Q	-0.05406	0.58100	0.02367	0.99968	
3	Cl3(18)	1	Y	1.31210	1.10482	0.96661	0.78724	0.69070	0.50395	-	-	6	Q	-0.06844	0.71262	0.03558	0.99947	
4	Cl3(34)	s	1	Y	2.47273	1.36117	1.18217	1.03139	0.92191	0.71999	-	-	6	Q	-0.06938	0.92761	0.04587	0.99994
5	Cl3(28)	1	Y	1.88563	1.62148	1.53903	1.39969	1.26450	1.01381	-	-	6	Q	-0.09842	1.31978	0.03237	0.99986	
6	Cl4(52)	1	Y	2.67460	1.50893	1.27188	1.06050	0.93014	0.70933	-	-	6	Q	-0.07364	0.92696	0.05816	0.99983	
7	Cl4(44)	1	Y	1.96878	1.69047	1.60648	1.42175	1.25645	1.00372	-	-	6	Q	-0.09818	1.30598	0.04163	0.99973	
8	Cl4(66)	1	Y	2.14003	1.91334	1.75148	1.60565	1.43266	1.15511	-	-	6	Q	-0.10876	1.49082	0.04098	0.99982	
9	Cl5(101)	1	Y	1.87327	1.59373	1.70864	1.61385	1.42978	1.22422	-	-	6	Q	-0.08750	1.49635	0.02623	0.99975	
10	Cl6(161)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	Cl6(152)	s	1	Y	1.02184	0.73169	0.67623	0.59438	0.54889	0.47996	-	-	6	Q	-0.02339	0.54921	0.01882	0.99992
12	Cl5(118)	1	Y	1.02402	0.91463	0.85020	0.75415	0.68354	0.58350	-	-	6	Q	-0.03737	0.69686	0.02122	0.99982	
13	Cl6(153)	1	Y	0.88266	0.81935	0.60192	0.77537	0.66030	0.59647	-	-	6	Q	-0.02991	0.69018	0.00733	0.99932	
14	Cl5(105)	1	Y	1.20312	1.04021	0.99965	0.96015	0.82296	0.65909	-	-	6	Q	-0.06789	0.87004	0.02177	0.99963	
15	Cl6(138)	1	Y	1.22541	1.06675	1.00587	0.91669	0.84817	0.76297	-	-	6	Q	-0.03117	0.85646	0.02109	0.99991	
16	Cl7(187)	1	Y	1.07415	0.94434	0.88498	0.79082	0.74346	0.66512	-	-	6	Q	-0.02786	0.74881	0.01846	0.99992	
17	Cl6(128)	1	Y	1.16100	0.91667	0.89359	0.85607	0.84318	0.73247	-	-	6	Q	-0.04270	0.86786	0.00587	0.99999	
18	Cl7(180)	1	Y	1.23170	1.08198	0.99753	0.93689	0.88497	0.82624	-	-	6	Q	-0.02031	0.88592	0.01772	0.99996	
19	Cl7(170)	1	Y	1.33635	1.19973	1.11853	1.05917	1.00487	0.94111	-	-	6	Q	-0.02267	1.00845	0.01743	0.99997	
20	Cl8(195)	1	Y	1.24821	1.10061	1.05076	0.99234	0.94476	0.89153	-	-	6	Q	-0.01887	0.94735	0.01528	0.99997	
21	Cl9(206)	1	Y	1.18038	1.03661	0.99467	0.96457	0.91081	0.85789	-	-	6	Q	-0.02022	0.91869	0.01268	0.99997	
22	Cl10(209)	1	Y	0.99002	0.86426	0.82007	0.78889	0.73849	0.67758	-	-	6	Q	-0.02343	0.74907	0.01198	0.99996	
23	Signal	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	Cl2(8)	2	Y	0.94637	0.83650	0.76620	0.67202	0.62199	0.48595	-	-	6	Q	-0.05185	0.64681	0.01712	0.99988	
26	Cl3(18)	2	Y	1.39241	1.13741	1.00550	0.76551	0.70491	0.54182	-	-	6	Q	-0.05533	0.70768	0.03799	0.99943	
27	Cl3(34)	s	2	Y	2.23518	1.39531	1.20146	1.04748	0.98379	0.79730	-	-	6	Q	-0.06315	0.98749	0.03800	0.99996
28	Cl3(28)	2	Y	2.05612	1.73008	1.59254	1.42520	1.36560	1.12979	-	-	6	Q	-0.08759	1.40224	0.02866	0.99996	
29	Cl4(52)	2	Y	1.32543	1.01634	1.04226	0.82635	0.80598	0.62728	-	-	6	Q	-0.06549	0.83027	0.02172	0.99971	
30	Cl4(44)	2	Y	2.26696	1.68554	1.62828	1.44775	1.40139	1.13801	-	-	6	Q	-0.09853	1.44647	0.02603	0.99996	

Calibration Response Factor Report

Batch: 14-0496 **Project Test Code:** Master 128(S)
Data Set: DP-14-0678 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Column Type:	Column:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
			MQO:	IE03	IE05	IE06	IE07	IE08	IE10			Levels:					
				M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D								
31	Cl4(66)		Y	2.28150	1.94181	1.76289	1.65364	1.54066	1.31516	-	-	6 Q	-0.08582	1.58007	0.03256	0.99996	
32	Cl5(101)		Y	1.56754	1.17777	1.01633	1.01029	0.86410	0.96534	-	-	6 Q	0.04538	0.80794	0.03732	0.99968	
33	Cl6(161)	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	Cl6(152)	s	Y	0.69735	0.69234	0.57622	0.54795	0.47409	0.53607	-	-	6 Q	0.02791	0.43955	0.02156	0.99966	
35	Cl5(118)		Y	1.37021	0.63622	0.73177	0.70795	0.59017	0.57149	-	-	6 Q	-0.00725	0.58778	0.02195	0.99943	
36	Cl6(153)		Y	1.07545	0.86632	0.79677	0.69128	0.63279	0.63321	-	-	6 Q	0.00578	0.60663	0.02539	0.99983	
37	Cl5(105)		Y	1.20126	1.01455	0.97857	0.92200	0.88341	0.94009	-	-	6 Q	0.02686	0.84840	0.01736	0.99996	
38	Cl6(138)		Y	0.67940	0.66822	0.62305	0.61544	0.61172	0.68345	-	-	6 Q	0.03117	0.58132	0.00625	0.99999	
39	Cl7(187)		Y	0.98245	0.80842	0.76633	0.69224	0.65688	0.68482	-	-	6 Q	0.01569	0.62875	0.01795	0.99993	
40	Cl6(128)		Y	1.29556	1.08544	1.04052	0.96581	0.92997	0.98492	-	-	6 Q	0.02722	0.89128	0.01958	0.99996	
41	Cl7(180)		Y	1.15986	0.95311	0.92022	0.85738	0.83699	0.89707	-	-	6 Q	0.02897	0.79906	0.01566	0.99998	
42	Cl7(170)		Y	1.17715	1.00944	0.98379	0.93732	0.91404	0.98260	-	-	6 Q	0.03138	0.87743	0.01381	0.99998	
43	Cl8(195)		Y	1.05313	0.90773	0.89676	0.85979	0.84072	0.91395	-	-	6 Q	0.03255	0.80577	0.01137	0.99998	
44	Cl9(206)		Y	0.94156	0.80488	0.80171	0.77400	0.75899	0.82033	-	-	6 Q	0.02717	0.73041	0.00888	0.99999	
45	Cl10(209)		Y	0.76301	0.64557	0.63678	0.60540	0.58689	0.62005	-	-	6 Q	0.01548	0.56751	0.00888	0.99998	

Calibration Response Factor Report

Batch: 14-0496 **Project Test Code:** Master 128(S)
Data Set: DP-14-0678 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Column:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
		MQO:	IE03	IE05	IE06	IE07	IE08	IE10	-	-	Levels:					
		M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D									

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax ² + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax ² + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax ² + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax ² + Bx + 0

Calibration Response Factor Report

Batch: 14-0496 **Project Test Code:** Master 128(S) **RFs validated CRD 12/10/2014**
Data Set: DP-14-0678 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417F.M **Responses Via** Initial Calibration **Last Updated** 12/5/2014 3:22:00 PM **Title:** NBH 101 only to compliment B method
Instrument: Inst_M **Operator:** RR **Path:** I:\M\DATA\MM0417F.M

No:	Analyte:	Type:	Column:	MQO:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
					IE03	IE05	IE06	IE07	IE08	IE10			Levels:					
					M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D								
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl5(101)	1	Y	2.10045	1.55920	1.68988	1.70104	1.46973	1.35619	-	-	6	Q	-0.05296	1.51726	0.02697	0.99964	
3	Signal	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	Cl5(101)	2	Y	1.67256	2.33575	1.99479	1.98711	2.06595	1.40514	-	-	6	Q	-0.26866	2.27420	-0.02348	0.99966	

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax^2 + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax^2 + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Calibration Response Factor Report

Batch: 14-0496 **Project Test Code:** Master 128(S)
Data Set: DP-14-0678 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

Method: I:\M\DATA\MM0417C.M
Title: NBH
Last Update: Fri Nov 14 9:30 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Oct 28 9:02 2014	Oct 28 8:27 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 11:58 PM

Method: I:\M\DATA\MM0417F.M
Title: NBH 101 only to compliment B method
Last Update: Fri Dec 05 15:22 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Dec 05 15:22 2014	Dec 05 15:15 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 11:58 PM

ICC Summary Report

Batch: 14-0496 **Data Set:** DP-14-0678
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project No:** 100053747
Batch: 14-0496 **Matrix:** SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)		1	-			
2	Cl2(8)		1	Y	0.04000	0.04325	8.3
3	Cl3(18)		1	Y	0.04000	0.04152	3.8
4	Cl3(34)	s	1	Y	0.04000	0.04104	2.5
5	Cl3(28)		1	Y	0.04000	0.04097	2.5
6	Cl4(52)		1	Y	0.04000	0.04111	2.8
7	Cl4(44)		1	Y	0.04000	0.04166	4.3
8	Cl4(66)		1	Y	0.04000	0.04028	0.8
9	Cl5(101)		1	Y	0.04000	0.03706	7.3
10	Cl6(161)	l	1	-			
11	Cl6(152)	s	1	Y	0.04020	0.04329	7.8
12	Cl5(118)		1	Y	0.04000	0.04151	3.8
13	Cl6(153)		1	Y	0.04000	0.03933	1.8
14	Cl5(105)		1	Y	0.04000	0.03777	5.5
15	Cl6(138)		1	Y	0.04000	0.04232	5.8
16	Cl7(187)		1	Y	0.04000	0.04280	7.0
17	Cl6(128)		1	Y	0.04000	0.03934	1.8
18	Cl7(180)		1	Y	0.04000	0.04137	3.5
19	Cl7(170)		1	Y	0.04000	0.04068	1.8
20	Cl8(195)		1	Y	0.04000	0.03988	0.3
21	Cl9(206)		1	Y	0.04000	0.03884	3.0
22	Cl10(209)		1	Y	0.04000	0.03908	2.3
24	Cl5(96)	l	2	-			
25	Cl2(8)		2	Y	0.04000	0.04248	6.3
26	Cl3(18)		2	Y	0.04000	0.03989	0.3
27	Cl3(34)	s	2	Y	0.04000	0.04170	4.3
28	Cl3(28)		2	Y	0.04000	0.04093	2.3
29	Cl4(52)		2	Y	0.04000	0.04057	1.5
30	Cl4(44)		2	Y	0.04000	0.04125	3.3
31	Cl4(66)		2	Y	0.04000	0.04095	2.5
32	Cl5(101)		2	Y	0.04000	0.03828	4.3
33	Cl6(161)	l	2	-			
34	Cl6(152)	s	2	Y	0.04020	0.04128	2.8
35	Cl5(118)		2	Y	0.04000	0.03951	1.3
36	Cl6(153)		2	Y	0.04000	0.04346	8.8
37	Cl5(105)		2	Y	0.04000	0.04078	2.0
38	Cl6(138)		2	Y	0.04000	0.04108	2.8
39	Cl7(187)		2	Y	0.04000	0.04269	6.8
40	Cl6(128)		2	Y	0.04000	0.04136	3.5
41	Cl7(180)		2	Y	0.04000	0.04073	1.8
42	Cl7(170)		2	Y	0.04000	0.04050	1.3
43	Cl8(195)		2	Y	0.04000	0.03956	1.0
44	Cl9(206)		2	Y	0.04000	0.03878	3.0

ICC Summary Report

Batch: 14-0496 Data Set: DP-14-0678
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0496 Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
45	Cl10(209)		2	Y	0.04000	0.03893	2.8

MQO: Only compounds flagged with "Y" will be counted towards
MQO exceedences.

Mean PD: 3.49
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

ICC Summary Report

Batch: 14-0496 Data Set: DP-14-0678
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0496 Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.04000	0.03858	3.5
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.04000	0.03850	3.8

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: 3.65
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0496 **Data Set:** DP-14-0678
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7507.D		M7540.D		M7551.D	
						IE07 mid		IE07 mid		IE07 mid	
						11/07/2014 17:12	11/08/2014 17:46	11/09/2014 01:58			
					MID	% Diff	MID	% Diff	MID	% Diff	
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.04008	0.03883	-3.1	0.03875	-3.3	0.03750	-6.4
3	Cl3(18)		1	Y	0.04016	0.03791	-5.6	0.03806	-5.2	0.03750	-6.6
4	Cl3(34)	s	1	Y	0.04000	0.03840	-4.0	0.03871	-3.2	0.03821	-4.5
5	Cl3(28)		1	Y	0.04016	0.03970	-1.1	0.04070	1.3	0.03931	-2.1
6	Cl4(52)		1	Y	0.04004	0.03787	-5.4	0.03887	-2.9	0.03790	-5.3
7	Cl4(44)		1	Y	0.04016	0.03960	-1.4	0.04022	0.1	0.03953	-1.6
8	Cl4(66)		1	Y	0.04008	0.03783	-5.6	0.03986	-0.5	0.03820	-4.7
9	Cl5(101)		1	Y	0.04008	0.03780	-5.7	0.03755	-6.3	0.03845	-4.1
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.04016	0.04040	0.6	0.04038	0.5	0.04021	0.1
12	Cl5(118)		1	Y	0.04016	0.03675	-8.5	0.03561	-11.3	0.03509	-12.6
13	Cl6(153)		1	Y	0.04016	0.04063	1.2	0.03843	-4.3	0.03889	-3.2
14	Cl5(105)		1	Y	0.04012	0.03737	-6.9	0.03749	-6.6	0.03950	-1.5
15	Cl6(138)		1	Y	0.04016	0.03867	-3.7	0.03827	-4.7	0.03838	-4.4
16	Cl7(187)		1	Y	0.04016	0.04000	-0.4	0.03922	-2.3	0.03966	-1.2
17	Cl6(128)		1	Y	0.04016	0.03690	-8.1	0.03618	-9.9	0.03805	-5.3
18	Cl7(180)		1	Y	0.04016	0.04050	0.8	0.04081	1.6	0.03955	-1.5
19	Cl7(170)		1	Y	0.04016	0.04072	1.4	0.03940	-1.9	0.03947	-1.7
20	Cl8(195)		1	Y	0.04016	0.04200	4.6	0.04087	1.8	0.04095	2.0
21	Cl9(206)		1	Y	0.04008	0.04174	4.1	0.04120	2.8	0.04139	3.3
22	Cl10(209)		1	Y	0.04016	0.04222	5.1	0.04200	4.6	0.04208	4.8
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.04008	0.03829	-4.5	0.03794	-5.3	0.03814	-4.8
26	Cl3(18)		2	Y	0.04016	0.03773	-6.1	0.03696	-8.0	0.03693	-8.0
27	Cl3(34)	s	2	Y	0.04000	0.03935	-1.6	0.03846	-3.8	0.03849	-3.8
28	Cl3(28)		2	Y	0.04016	0.03677	-8.4	0.03776	-6.0	0.03604	-10.3
29	Cl4(52)		2	Y	0.04004	0.03935	-1.7	0.03930	-1.8	0.03724	-7.0
30	Cl4(44)		2	Y	0.04016	0.04156	3.5	0.04187	4.3	0.03885	-3.3
31	Cl4(66)		2	Y	0.04008	0.04167	4.0	0.04065	1.4	0.03997	-0.3
32	Cl5(101)		2	Y	0.04008	0.04113	2.6	0.03592	-10.4	0.03941	-1.7
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.04016	0.04132	2.9	0.04206	4.7	0.04397	9.5
35	Cl5(118)		2	Y	0.04016	0.04113	2.4	0.04013	-0.1	0.03746	-6.7
36	Cl6(153)		2	Y	0.04016	0.04147	3.3	0.04210	4.8	0.03711	-7.6
37	Cl5(105)		2	Y	0.04012	0.03983	-0.7	0.03871	-3.5	0.03755	-6.4
38	Cl6(138)		2	Y	0.04016	0.03882	-3.3	0.04054	0.9	0.04333	7.9
39	Cl7(187)		2	Y	0.04016	0.04163	3.7	0.04212	4.9	0.04183	4.2
40	Cl6(128)		2	Y	0.04016	0.04213	4.9	0.04194	4.4	0.03978	-0.9
41	Cl7(180)		2	Y	0.04016	0.04340	8.1	0.04143	3.2	0.04101	2.1
42	Cl7(170)		2	Y	0.04016	0.04282	6.6	0.04177	4.0	0.04103	2.2
43	Cl8(195)		2	Y	0.04016	0.04355	8.4	0.04284	6.7	0.04257	6.0
44	Cl9(206)		2	Y	0.04008	0.04406	9.9	0.04353	8.6	0.04347	8.5

CCV Summary Report

Batch: 14-0496 Data Set: DP-14-0678
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED

Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7507.D		M7540.D		M7551.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.04016	0.04448	10.8	0.04431	10.3	0.04440	10.6
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.4	4.3	4.7		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0496 **Data Set:** DP-14-0678
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7518.D		M7529.D		M7562.D	
						IE08 mid		IE08 mid		IE08 mid	
						11/08/2014 01:24	11/08/2014 09:35	11/08/2014 09:35	11/09/2014 10:09		
					MID	% Diff	MID	% Diff	MID	% Diff	
1	Cl5(96)	I	1	-							
2	Cl2(8)		1	Y	0.08016	0.07671 -4.3	0.07745 -3.4	0.07404 -7.6			
3	Cl3(18)		1	Y	0.08032	0.07444 -7.3	0.07550 -6.0	0.07509 -6.5			
4	Cl3(34)	s	1	Y	0.08000	0.07847 -1.9	0.07819 -2.3	0.07662 -4.2			
5	Cl3(28)		1	Y	0.08032	0.08257 2.8	0.08129 1.2	0.07546 -6.1			
6	Cl4(52)		1	Y	0.08008	0.07759 -3.1	0.07761 -3.1	0.07380 -7.8			
7	Cl4(44)		1	Y	0.08032	0.07894 -1.7	0.07844 -2.3	0.07568 -5.8			
8	Cl4(66)		1	Y	0.08016	0.08018 0.0	0.07801 -2.7	0.07187 -10.3			
9	Cl5(101)		1	Y	0.08016	0.08219 2.5	0.07273 -9.3	0.07507 -6.3			
10	Cl6(161)	I	1	-							
11	Cl6(152)	s	1	Y	0.08032	0.07442 -7.3	0.07823 -2.6	0.08183 1.9			
12	Cl5(118)		1	Y	0.08032	0.07356 -8.4	0.07197 -10.4	0.06975 -13.2			
13	Cl6(153)		1	Y	0.08032	0.07771 -3.2	0.08117 1.1	0.07556 -5.9			
14	Cl5(105)		1	Y	0.08024	0.08462 5.5	0.07349 -8.4	0.08058 0.4			
15	Cl6(138)		1	Y	0.08032	0.07628 -5.0	0.07681 -4.4	0.07805 -2.8			
16	Cl7(187)		1	Y	0.08032	0.07675 -4.4	0.07728 -3.8	0.07789 -3.0			
17	Cl6(128)		1	Y	0.08032	0.07635 -4.9	0.07919 -1.4	0.07981 -0.6			
18	Cl7(180)		1	Y	0.08032	0.07785 -3.1	0.07733 -3.7	0.07768 -3.3			
19	Cl7(170)		1	Y	0.08032	0.07736 -3.7	0.07665 -4.6	0.07745 -3.6			
20	Cl8(195)		1	Y	0.08032	0.07952 -1.0	0.07764 -3.3	0.08022 -0.1			
21	Cl9(206)		1	Y	0.08016	0.07900 -1.4	0.07609 -5.1	0.08021 0.1			
22	Cl10(209)		1	Y	0.08032	0.07953 -1.0	0.07613 -5.2	0.08135 1.3			
24	Cl5(96)	I	2	-							
25	Cl2(8)		2	Y	0.08016	0.07280 -9.2	0.07463 -6.9	0.07317 -8.7			
26	Cl3(18)		2	Y	0.08032	0.07241 -9.8	0.07581 -5.6	0.07356 -8.4			
27	Cl3(34)	s	2	Y	0.08000	0.07662 -4.2	0.07771 -2.9	0.07542 -5.7			
28	Cl3(28)		2	Y	0.08032	0.07798 -2.9	0.07854 -2.2	0.07340 -8.6			
29	Cl4(52)		2	Y	0.08008	0.07126 -11.0	0.07544 -5.8	0.07100 -11.3			
30	Cl4(44)		2	Y	0.08032	0.07428 -7.5	0.08572 6.7	0.08630 7.4			
31	Cl4(66)		2	Y	0.08016	0.08202 2.3	0.08241 2.8	0.08160 1.8			
32	Cl5(101)		2	Y	0.08016	0.07506 -6.4	0.07358 -8.2	0.07853 -2.0			
33	Cl6(161)	I	2	-							
34	Cl6(152)	s	2	Y	0.08032	0.08632 7.5	0.08032 0.0	0.08278 3.1			
35	Cl5(118)		2	Y	0.08032	0.07681 -4.4	0.07650 -4.8	0.06794 -15.4			
36	Cl6(153)		2	Y	0.08032	0.08130 1.2	0.07924 -1.3	0.07023 -12.6			
37	Cl5(105)		2	Y	0.08024	0.08131 1.3	0.08028 0.0	0.07333 -8.6			
38	Cl6(138)		2	Y	0.08032	0.07930 -1.3	0.08573 6.7	0.08170 1.7			
39	Cl7(187)		2	Y	0.08032	0.08067 0.4	0.08064 0.4	0.07658 -4.7			
40	Cl6(128)		2	Y	0.08032	0.08245 2.7	0.07925 -1.3	0.07711 -4.0			
41	Cl7(180)		2	Y	0.08032	0.08330 3.7	0.08098 0.8	0.08070 0.5			
42	Cl7(170)		2	Y	0.08032	0.08298 3.3	0.07875 -2.0	0.08156 1.5			
43	Cl8(195)		2	Y	0.08032	0.08555 6.5	0.08739 8.8	0.08504 5.9			
44	Cl9(206)		2	Y	0.08016	0.08571 6.9	0.08987 12.1	0.08952 11.7			

CCV Summary Report

Batch: 14-0496 Data Set: DP-14-0678
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7518.D		M7529.D		M7562.D	
						MID	% Diff	MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.08032	0.08881	10.6	0.09298	15.8	0.09065	12.9
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.4	4.5	5.7		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0496 Data Set: DP-14-0678
 Project Test Code: Master 128(S) SOP_NO: 5-128-13
 Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
 Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7507.D		M7540.D		M7551.D	
						IE07 mid		IE07 mid		IE07 mid	
						11/07/2014 17:12	11/08/2014 17:46	11/09/2014 01:58			
					MID	% Diff	MID	% Diff	MID	% Diff	
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.04008	0.04057	1.2	0.03739	-6.7	0.03982	-0.6
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.04008	0.03692	-7.9	0.03994	-0.3	0.04041	0.8
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	4.6	3.5	0.7		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

CCV Summary Report

Batch: 14-0496 Data Set: DP-14-0678
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7518.D		M7529.D		M7562.D	
						MID	% Diff	MID	% Diff	MID	% Diff
						11/08/2014 01:24		11/08/2014 09:35		11/09/2014 10:09	
1	Cl5(96)	I	1	-							
2	Cl5(101)		1	Y	0.08016	0.08778	9.5	0.08119	1.3	0.07953	-0.8
4	Cl5(96)	I	2	-							
5	Cl5(101)		2	Y	0.08016	0.08153	1.7	0.08610	7.4	0.07480	-6.7
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	5.6	4.4	3.8		
						Time Check:	< 24	< 24	< 24		

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 RIS/SIS Mult : NA
 Total Cpnds : 45

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound		IE03	IE05	IE06	IE07	IE08	IE10
1 I	Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2	Cl2(8)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3	Cl3(18)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
4 s	Cl3(34)	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
5	Cl3(28)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
6	Cl4(52)	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
7	Cl4(44)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
8	Cl4(66)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
9	Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
10 I	Cl6(161)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
11 s	Cl6(152)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
12	Cl5(118)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
13	Cl6(153)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
14	Cl5(105)	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
15	Cl6(138)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
16	Cl7(187)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
17	Cl6(128)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
18	Cl7(180)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
19	Cl7(170)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
20	Cl8(195)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
21	Cl9(206)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
22	Cl10(209)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
23	Signal #2	-----	-----	-----	-----	-----	-----
24 I	Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
25	Cl2(8) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
26	Cl3(18) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
27 s	Cl3(34) #2	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
28	Cl3(28) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
29	Cl4(52) #2	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
30	Cl4(44) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
31	Cl4(66) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
32	Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
33 I	Cl6(161) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
34 s	Cl6(152) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
35	Cl5(118) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
36	Cl6(153) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
37	Cl5(105) #2	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
38	Cl6(138) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
39	Cl7(187) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
40	Cl6(128) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
41	Cl7(180) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
42	Cl7(170) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
43	Cl8(195) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
44	Cl9(206) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
45	Cl10(209) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015

Approval Date: Not Approved
Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 RIS/SIS Mult : 1.000
 Total Cpnds : 5

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound	IE03	IE05	IE06	IE07	IE08	IE10
1 I Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2 Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3 Signal #2	-----	-----	-----	-----	-----	-----
4 I Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
5 Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2021371m	0.10000	ng
10) I C16(161)	23.21	4304957	0.10000	ng
24) I C15(96) #2	20.51	12822282m	0.10000	ng
33) I C16(161) #2	26.79	28199596m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	119959m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
11) s C16(152)	20.48	106015	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
27) s C13(34) #2	16.48	687843m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
34) s C16(152) #2	23.58	473925m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	49812m	BelowCal	ng
3) C13(18)	12.13	63919m	BelowCal	ng
5) C13(28)	14.21	91859m	BelowCal	ng
6) C14(52)	15.84	129752	BelowCal	ng
7) C14(44)	16.70	95909	BelowCal	ng
8) C14(66)	18.60	103819m	BelowCal	ng
9) C15(101)	19.73	90878m	BelowCal	ng
12) C15(118)	22.40	106241m	BelowCal	ng
13) C16(153)	23.43 TW	91576m	BelowCal	ng
14) C15(105)	23.44 TW	124823m	BelowCal	ng
15) C16(138)	24.53	127136m	BelowCal	ng
16) C17(187)	25.29	111442m	BelowCal	ng
17) C16(128)	25.63	120454m	BelowCal	ng
18) C17(180)	27.16	127788	BelowCal	ng
19) C17(170)	27.96	138646m	BelowCal	ng
20) C18(195)	29.04	129501	BelowCal	ng
21) C19(206)	30.30	121956m	BelowCal	ng
22) C110(209)	30.90	102714m	BelowCal	ng
25) C12(8) #2	13.11	291232m	BelowCal	ng
26) C13(18) #2	15.00	430280m	BelowCal	ng
28) C13(28) #2	17.76	635375m	BelowCal	ng
29) C14(52) #2	19.15f	407881m	BelowCal	ng
30) C14(44) #2	19.96	700530m	BelowCal	ng
31) C14(66) #2	22.36	702095m	BelowCal	ng
32) C15(101) #2	23.30f	369053m	BelowCal	ng
35) C15(118) #2	26.37	931211m	BelowCal	ng
36) C16(153) #2	26.93	730887	BelowCal	ng
37) C15(105) #2	27.20	816392	BelowCal	ng
38) C16(138) #2	27.78	461727m	BelowCal	ng
39) C17(187) #2	28.14	667680	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	880477m	BelowCal	ng
41)	Cl7(180) #2	29.58	788251m	BelowCal	ng
42)	Cl7(170) #2	30.21	800002m	BelowCal	ng
43)	Cl8(195) #2	31.08	715719m	BelowCal	ng
44)	Cl9(206) #2	32.18	637238m	BelowCal	ng
45)	Cl10(209) #2	32.62	518551m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
10) I C16(161)	23.21	4562564	0.10000	ng
24) I C15(96) #2	20.51	12416297m	0.10000	ng
33) I C16(161) #2	26.79	27129752m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.39	297705	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
11) s C16(152)	20.48	348526	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
27) s C13(34) #2	16.47	1801754m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
34) s C16(152) #2	23.57	1960933m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	180784	BelowCal	ng
3) C13(18)	12.12	242567	BelowCal	ng
5) C13(28)	14.21	356002	BelowCal	ng
6) C14(52)	15.83	330341	BelowCal	ng
7) C14(44)	16.70	371149	BelowCal	ng
8) C14(66)	18.60	419278	BelowCal	ng
9) C15(101)	19.73	349240m	BelowCal	ng
12) C15(118)	22.39	435665	BelowCal	ng
13) C16(153)	23.43 TW	390283m	BelowCal	ng
14) C15(105)	23.44 TW	495013m	BelowCal	ng
15) C16(138)	24.54	508129	BelowCal	ng
16) C17(187)	25.29	449817	BelowCal	ng
17) C16(128)	25.63	436637m	BelowCal	ng
18) C17(180)	27.16	515383	BelowCal	ng
19) C17(170)	27.96	571467	BelowCal	ng
20) C18(195)	29.04	524255m	BelowCal	ng
21) C19(206)	30.30	492822m	BelowCal	ng
22) C110(209)	30.90	411674m	BelowCal	ng
25) C12(8) #2	13.11	1082243m	BelowCal	ng
26) C13(18) #2	14.99	1474380m	BelowCal	ng
28) C13(28) #2	17.76	2242630m	BelowCal	ng
29) C14(52) #2	19.14	1313663m	BelowCal	ng
30) C14(44) #2	19.96	2184906m	BelowCal	ng
31) C14(66) #2	22.36	2512274m	BelowCal	ng
32) C15(101) #2	23.22f	2401459m	BelowCal	ng
35) C15(118) #2	26.34	1802006m	BelowCal	ng
36) C16(153) #2	26.93	2453717	BelowCal	ng
37) C15(105) #2	27.20	2870795	BelowCal	ng
38) C16(138) #2	27.78	1892629m	BelowCal	ng
39) C17(187) #2	28.14	2289736	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3074334	BelowCal	ng
41)	Cl7(180) #2	29.58	2699532	BelowCal	ng
42)	Cl7(170) #2	30.21	2859094m	BelowCal	ng
43)	Cl8(195) #2	31.08	2571011m	BelowCal	ng
44)	Cl9(206) #2	32.18	2275330m	BelowCal	ng
45)	Cl10(209) #2	32.62	1828475m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
10) I C16(161)	23.21	4815577	0.10000	ng
24) I C15(96) #2	20.51	13716870m	0.10000	ng
33) I C16(161) #2	26.79	29503850m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	526303	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
11) s C16(152)	20.48	653892	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
27) s C13(34) #2	16.47	3296041m	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
34) s C16(152) #2	23.58	3413733m	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.20	333163	BelowCal	ng
3) C13(18)	12.12	432057	BelowCal	ng
5) C13(28)	14.21	687914	BelowCal	ng
6) C14(52)	15.83	566807	BelowCal	ng
7) C14(44)	16.70	718063	BelowCal	ng
8) C14(66)	18.60	781317	BelowCal	ng
9) C15(101)	19.73	762207m	BelowCal	ng
12) C15(118)	22.39	822121	0.03093	ng
13) C16(153)	23.43 TW	582042m	BelowCal	ng
14) C15(105)	23.44 TW	965663m	BelowCal	ng
15) C16(138)	24.53	972641	BelowCal	ng
16) C17(187)	25.29	855745	BelowCal	ng
17) C16(128)	25.63	864076m	BelowCal	ng
18) C17(180)	27.16	964577	BelowCal	ng
19) C17(170)	27.96	1081580	BelowCal	ng
20) C18(195)	29.04	1016052	0.02214	ng
21) C19(206)	30.30 e	959902m	BelowCal	ng
22) C110(209)	30.90	792978	BelowCal	ng
25) C12(8) #2	13.10	2106184m	BelowCal	ng
26) C13(18) #2	14.99	2769502m	BelowCal	ng
28) C13(28) #2	17.76	4386422m	BelowCal	ng
29) C14(52) #2	19.14	2862174m	BelowCal	ng
30) C14(44) #2	19.96	4484836m	BelowCal	ng
31) C14(66) #2	22.35	4845930m	BelowCal	ng
32) C15(101) #2	23.22f	5513291m	BelowCal	ng
35) C15(118) #2	26.35	4335255m	BelowCal	ng
36) C16(153) #2	26.93	4720338	1858066.56915	ng
37) C15(105) #2	27.20	5791618	1122307.10620	ng
38) C16(138) #2	27.78	3691173m	BelowCal	ng
39) C17(187) #2	28.14	4540027	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	6164428	BelowCal	ng
41)	Cl7(180) #2	29.58	5451699	BelowCal	ng
42)	Cl7(170) #2	30.21	5828332m	1341992.36163	ng
43)	Cl8(195) #2	31.08	5312720	BelowCal	ng
44)	Cl9(206) #2	32.18	4740147m	BelowCal	ng
45)	Cl10(209) #2	32.62	3772500m	1559880.63544	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
10) I C16(161)	23.21	5366502	0.10000	ng
24) I C15(96) #2	20.51	14992953m	0.10000	ng
33) I C16(161) #2	26.79	34497986	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	990336	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
11) s C16(152)	20.48	1280995	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
27) s C13(34) #2	16.47	6281919m	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
34) s C16(152) #2	23.58	7591525m	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	e	607269	BelowCal ng
3) C13(18)	12.12	e	758928	BelowCal ng
5) C13(28)	14.21	e	1349346	BelowCal ng
6) C14(52)	15.83	e	1019304	BelowCal ng
7) C14(44)	16.70	e	1370610	4937947.47625 ng
8) C14(66)	18.60	e	1544814	BelowCal ng
9) C15(101)	19.73	e	1552699m	BelowCal ng
12) C15(118)	22.39	e	1625326	BelowCal ng
13) C16(153)	23.43	TW	1671077m	BelowCal ng
14) C15(105)	23.44	TW	2067241m	BelowCal ng
15) C16(138)	24.53	E	1975640	BelowCal ng
16) C17(187)	25.29	e	1704362m	BelowCal ng
17) C16(128)	25.63	e	1845001m	BelowCal ng
18) C17(180)	27.16	E	2019174m	BelowCal ng
19) C17(170)	27.96	E	2282709	3008040.19192 ng
20) C18(195)	29.04	E	2138682m	BelowCal ng
21) C19(206)	30.30	E	2074698m	BelowCal ng
22) C110(209)	30.90	E	1700197m	BelowCal ng
25) C12(8) #2	13.10	e	4038278m	BelowCal ng
26) C13(18) #2	14.99	e	4609294m	BelowCal ng
28) C13(28) #2	17.76	e	8581359m	2635734.36911 ng
29) C14(52) #2	19.14	e	4960711m	BelowCal ng
30) C14(44) #2	19.96	e	8717176m	1574158.07943 ng
31) C14(66) #2	22.36	e	9936993m	BelowCal ng
32) C15(101) #2	23.21f	e	12947398m	BelowCal ng
35) C15(118) #2	26.35	e	9808234m	BelowCal ng
36) C16(153) #2	26.93	E	9577231	5152267.10485 ng
37) C15(105) #2	27.20	E	12760987	3375570.13183 ng
38) C16(138) #2	27.78	e	8526537m	1389497.67562 ng
39) C17(187) #2	28.14	E	9590626	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	13380771	BelowCal ng
41)	Cl7(180) #2	29.58	E	11878441m	BelowCal ng
42)	Cl7(170) #2	30.21	E	12986040m	4087411.97930 ng
43)	Cl8(195) #2	31.08	E	11911883m	BelowCal ng
44)	Cl9(206) #2	32.18	E	10701956m	BelowCal ng
45)	Cl10(209) #2	32.62	E	8387432m	5983940.61406 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
10) I C16(161)	23.21	5424577	0.10000	ng
24) I C15(96) #2	20.51	15446142m	0.10000	ng
33) I C16(161) #2	26.79	34872167	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1861197	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
11) s C16(152)	20.48	2391536	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
27) s C13(34) #2	16.47	12156621m	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
34) s C16(152) #2	23.57	13279030m	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 1130878	BelowCal	ng
3) C13(18)	12.12	E 1399997	BelowCal	ng
5) C13(28)	14.21	E 2563059	BelowCal	ng
6) C14(52)	15.83	E 1879706	BelowCal	ng
7) C14(44)	16.70	E 2546734m	8209713.15303	ng
8) C14(66)	18.60	E 2898127	BelowCal	ng
9) C15(101)	19.74	E 2892299m	BelowCal	ng
12) C15(118)	22.39	E 2978206	BelowCal	ng
13) C16(153)	23.44	TW e 2876946m	BelowCal	ng
14) C15(105)	23.45	TW e 3582092m	1460512.29312	ng
15) C16(138)	24.54	E 3695490	BelowCal	ng
16) C17(187)	25.29	E 3239289	BelowCal	ng
17) C16(128)	25.64	E 3673746m	3005443.36077	ng
18) C17(180)	27.15	E 3855848m	BelowCal	ng
19) C17(170)	27.96	E 4378231	5123824.53354	ng
20) C18(195)	29.04	E 4116319m	BelowCal	ng
21) C19(206)	30.31	E 3960506m	BelowCal	ng
22) C110(209)	30.90	E 3217630m	BelowCal	ng
25) C12(8) #2	13.10	E 7701304	BelowCal	ng
26) C13(18) #2	14.99	E 8745402m	BelowCal	ng
28) C13(28) #2	17.76	E 16942159	4721046.44848	ng
29) C14(52) #2	19.14	E 9969394	3586542.90657	ng
30) C14(44) #2	19.96	E 17386149m	5402544.89334	ng
31) C14(66) #2	22.35	E 19075871m	BelowCal	ng
32) C15(101) #2	23.21f	E 25811518m	BelowCal	ng
35) C15(118) #2	26.35	e 16530172m	BelowCal	ng
36) C16(153) #2	26.93	E 17723976	8475069.04022	ng
37) C15(105) #2	27.20	E 24719069	5584053.95798	ng
38) C16(138) #2	27.78	E 17133888m	4026737.36316	ng
39) C17(187) #2	28.14	E 18398636	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	26047859	BelowCal ng
41)	Cl7(180) #2	29.58	E	23443478m	BelowCal ng
42)	Cl7(170) #2	30.21	E	25601551m	6820215.95092 ng
43)	Cl8(195) #2	31.08	E	23548017m	BelowCal ng
44)	Cl9(206) #2	32.18	E	21216572m	BelowCal ng
45)	Cl10(209) #2	32.62	E	16438463m	10094597.27940 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2857033m	0.10000	ng
10) I C16(161)	23.21	5785136	0.10000	ng
24) I C15(96) #2	20.51	15534608m	0.10000	ng
33) I C16(161) #2	26.79	28894537	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6582490m	BelowCal	ng
Spiked Amount	0.3200	Recovery	=	0.00%
11) s C16(152)	20.48	8920810	BelowCal	ng
Spiked Amount	0.3213	Recovery	=	0.00%
27) s C13(34) #2	16.47	39634387m	BelowCal	ng
Spiked Amount	0.3200	Recovery	=	0.00%
34) s C16(152) #2	23.57	49764814m	BelowCal	ng
Spiked Amount	0.3213	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 3802803	BelowCal	ng
3) C13(18)	12.12	E 4625770	BelowCal	ng
5) C13(28)	14.20	E 9305861	BelowCal	ng
6) C14(52)	15.83	E 6491550m	BelowCal	ng
7) C14(44)	16.70	E 9213228m	16878676.73504	ng
8) C14(66)	18.60	E 10581706	BelowCal	ng
9) C15(101)	19.74	E 11214785m	BelowCal	ng
12) C15(118)	22.39	E 10845273	BelowCal	ng
13) C16(153)	23.44	TW E 11086255m	BelowCal	ng
14) C15(105)	23.45	TW E 12238036m	4834222.71684	ng
15) C16(138)	24.54	E 14181010	BelowCal	ng
16) C17(187)	25.28	E 12362255m	BelowCal	ng
17) C16(128)	25.63	E 13614003m	7619432.15592	ng
18) C17(180)	27.16	E 15356923	BelowCal	ng
19) C17(170)	27.96	E 17491960	11231671.25949	ng
20) C18(195)	29.04	E 16570469m	BelowCal	ng
21) C19(206)	30.30	E 15913312m	BelowCal	ng
22) C110(209)	30.90	E 12593895m	BelowCal	ng
25) C12(8) #2	13.10	E 24205484m	BelowCal	ng
26) C13(18) #2	14.99	E 27041957m	BelowCal	ng
28) C13(28) #2	17.76	E 56387566m	9817113.52330	ng
29) C14(52) #2	19.14	E 31213496m	8327658.06829	ng
30) C14(44) #2	19.96	E 56797595m	12385262.50102	ng
31) C14(66) #2	22.36	E 65508405m	BelowCal	ng
32) C15(101) #2	23.21f	E 73990498m	BelowCal	ng
35) C15(118) #2	26.34	E 53052856m	BelowCal	ng
36) C16(153) #2	26.93	E 58782173	19272949.92145	ng
37) C15(105) #2	27.20	E 87183647	12882056.53676	ng
38) C16(138) #2	27.78	E 63446136m	10766758.70710	ng
39) C17(187) #2	28.14	E 63573730	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	91431997	BelowCal ng
41)	Cl7(180) #2	29.58	E	83277221m	BelowCal ng
42)	Cl7(170) #2	30.21	E	91217127m	15760612.61828 ng
43)	Cl8(195) #2	31.08	E	84844015m	BelowCal ng
44)	Cl9(206) #2	32.17	E	76001510m	BelowCal ng
45)	Cl10(209) #2	32.62	E	57560994m	23285632.07742 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
10) I C16(161)	23.21	5353469	0.10000	ng	
24) I C15(96) #2	20.51	13969685m	0.10000	ng	
33) I C16(161) #2	26.78	30447371	0.10000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	1040909	0.04104	ng	2.6
Spiked Amount	0.0400	Recovery	=	102.60%	
11) s C16(152)	20.48	1350202	0.04329	ng	7.8
Spiked Amount	0.0402	Recovery	=	107.79%	
27) s C13(34) #2	16.47	6131122m	0.04171	ng	4.3
Spiked Amount	0.0400	Recovery	=	104.27%	
34) s C16(152) #2	23.57	6327177m	0.04129	ng	2.8
Spiked Amount	0.0402	Recovery	=	102.81%	
Target Compounds					
2) C12(8)	10.21	664551	0.04326	ng	8.1
3) C13(18)	12.12	802051	0.04152	ng	3.8
5) C13(28)	14.21	1396518	0.04098	ng	2.5
6) C14(52)	15.83	1070948	0.04112	ng	2.8
7) C14(44)	16.70	1426889m	0.04167	ng	4.2
8) C14(66)	18.60	1565208	0.04028	ng	0.7
9) C15(101)	19.73	1426993m	0.03706	ng	-7.3
12) C15(118)	22.39	1627776	0.04151	ng	3.8
13) C16(153)	23.43	1467714m	0.03933	ng	-1.7
14) C15(105)	23.45	1824192m	0.03778	ng	-5.5
15) C16(138)	24.53	2023467	0.04232	ng	5.8
16) C17(187)	25.29	1787515	0.04281	ng	7.0
17) C16(128)	25.63	1824156m	0.03935	ng	-1.6
18) C17(180)	27.15	2038700	0.04138	ng	3.4
19) C17(170)	27.96	2269675	0.04068	ng	1.7
20) C18(195)	29.04	2088594m	0.03989	ng	-0.3
21) C19(206)	30.30	1961931m	0.03884	ng	-2.9
22) C110(209)	30.90	1612364m	0.03909	ng	-2.3
25) C12(8) #2	13.10	3947204m	0.04248	ng	6.2
26) C13(18) #2	14.99	4351305m	0.03989	ng	-0.3
28) C13(28) #2	17.76	8214453m	0.04094	ng	2.3
29) C14(52) #2	19.14	4859257m	0.04058	ng	1.4
30) C14(44) #2	19.96	8466239m	0.04126	ng	3.1
31) C14(66) #2	22.35	9294328m	0.04096	ng	2.4
32) C15(101) #2	23.24	4934904m	0.03828	ng	-4.3
35) C15(118) #2	26.35	7705344m	0.03951	ng	-1.2
36) C16(153) #2	26.93	8835029	0.04347	ng	8.7
37) C15(105) #2	27.20	11200960m	0.04079	ng	2.0
38) C16(138) #2	27.78	7622194m	0.04108	ng	2.7
39) C17(187) #2	28.14	8806327	0.04269	ng	6.7

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	11964334m	0.04137	ng	3.4
41)	Cl7(180) #2	29.58	10533125m	0.04073	ng	1.8
42)	Cl7(170) #2	30.21	11398863m	0.04051	ng	1.3
43)	Cl8(195) #2	31.08	10207239m	0.03956	ng	-1.1
44)	Cl9(206) #2	32.18	9021058m	0.03879	ng	-3.0
45)	Cl10(209) #2	32.62	7069806m	0.03894	ng	-2.6

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7507.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0423\M7507.D\ECD2B.CH
 Acq On : 11-7-2014 05:12:01 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:03:03 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3434576m	0.10000	ng
10) I C16(161)	23.23	7932432m	0.10000	ng
24) I C15(96) #2	20.52	16878951	0.10000	ng
33) I C16(161) #2	26.80	40450051m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	1345940m	0.03840	ng
Spiked Amount	0.0400	Recovery	=	96.00%
11) s C16(152)	20.49	1878869m	0.04040	ng
Spiked Amount	0.0402	Recovery	=	100.60%
27) s C13(34) #2	16.48	7035644m	0.03935	ng
Spiked Amount	0.0400	Recovery	=	98.38%
34) s C16(152) #2	23.58	8412302m	0.04132	ng
Spiked Amount	0.0402	Recovery	=	102.89%
Target Compounds				
2) C12(8)	10.22	828154	0.03883	ng
3) C13(18)	12.13	1016227m	0.03791	ng
5) C13(28)	14.21	1857620m	0.03970	ng
6) C14(52)	15.84	1369136m	0.03787	ng
7) C14(44)	16.71	1866523m	0.03960	ng
8) C14(66)	18.61	2024244m	0.03783	ng
9) C15(101)	19.74	1989996m	0.03780	ng
12) C15(118)	22.41	2159804m	0.03675	ng
13) C16(153)	23.45 TW	2243151m	0.04063	ng
14) C15(105)	23.46 TW	2676520m	0.03737	ng
15) C16(138)	24.55	2757784m	0.03867	ng
16) C17(187)	25.30	2487183m	0.04000	ng
17) C16(128)	25.65	2540700m	0.03690	ng
18) C17(180)	27.17	2960065m	0.04050	ng
19) C17(170)	27.97	3365575m	0.04072	ng
20) C18(195)	29.05	3250677m	0.04200	ng
21) C19(206)	30.31	3114117m	0.04174	ng
22) C110(209)	30.91	2570692m	0.04222	ng
25) C12(8) #2	13.11	4340429m	0.03829	ng
26) C13(18) #2	15.00	5014734m	0.03773	ng
28) C13(28) #2	17.77	8987385m	0.03677	ng
29) C14(52) #2	19.15	5709588m	0.03935	ng
30) C14(44) #2	19.97	10299812m	0.04156	ng
31) C14(66) #2	22.37	11411106	0.04167	ng
32) C15(101) #2	23.25	6368316m	0.04113	ng
35) C15(118) #2	26.36	10616046m	0.04113	ng
36) C16(153) #2	26.94	11244174	0.04147	ng
37) C15(105) #2	27.21	14542492	0.03983	ng
38) C16(138) #2	27.79	9570574m	0.03882	ng
39) C17(187) #2	28.15	11423817	0.04163	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7507.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0423\M7507.D\ECD2B.CH
 Acq On : 11-7-2014 05:12:01 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:03:03 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 14:22:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	16176264	0.04213	ng
41)	Cl7(180) #2	29.59	14883135	0.04340	ng
42)	Cl7(170) #2	30.22	15987498m	0.04282	ng
43)	Cl8(195) #2	31.09	14903408m	0.04355	ng
44)	Cl9(206) #2	32.19	13588641m	0.04406	ng
45)	Cl10(209) #2	32.63	10694268m	0.04448	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7518.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0423\M7518.D\ECD2B.CH
 Acq On : 11-8-2014 01:23:37 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:25:48 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:25:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3718834	0.10000	ng
10) I C16(161)	23.22	8628871	0.10000	ng
24) I C15(96) #2	20.52	17962544m	0.10000	ng
33) I C16(161) #2	26.79	41916063	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2718622	0.07847	ng
Spiked Amount	0.0800	Recovery	=	98.09%
11) s C16(152)	20.48	3577380	0.07442	ng
Spiked Amount	0.0803	Recovery	=	92.65%
27) s C13(34) #2	16.48	13607833m	0.07662	ng
Spiked Amount	0.0800	Recovery	=	95.77%
34) s C16(152) #2	23.58	17679634m	0.08632	ng
Spiked Amount	0.0803	Recovery	=	107.47%
Target Compounds				
2) C12(8)	10.21	1627162	0.07671	ng
3) C13(18)	12.13	1964116	0.07444	ng
5) C13(28)	14.21	3923441	0.08257	ng
6) C14(52)	15.84	2726227	0.07759	ng
7) C14(44)	16.70	3761148m	0.07894	ng
8) C14(66)	18.60	4337655	0.08018	ng
9) C15(101)	19.74	4451065m	0.08219	ng
12) C15(118)	22.40	4431957	0.07356	ng
13) C16(153)	23.44	4535137m	0.07771	ng
14) C15(105)	23.46	6121187m	0.08462	ng
15) C16(138)	24.54	5663078	0.07628	ng
16) C17(187)	25.29	4976982	0.07675	ng
17) C16(128)	25.64	5553168m	0.07635	ng
18) C17(180)	27.16	5997935	0.07785	ng
19) C17(170)	27.96	6765145m	0.07736	ng
20) C18(195)	29.04	6529139	0.07952	ng
21) C19(206)	30.31	6263048m	0.07900	ng
22) C110(209)	30.90	5116127m	0.07953	ng
25) C12(8) #2	13.10	8271979m	0.07280	ng
26) C13(18) #2	15.00	9365664m	0.07241	ng
28) C13(28) #2	17.76	19199890m	0.07798	ng
29) C14(52) #2	19.15	10419691m	0.07126	ng
30) C14(44) #2	19.96	18791051m	0.07428	ng
31) C14(66) #2	22.36	22827851m	0.08202	ng
32) C15(101) #2	23.24	12023050m	0.07506	ng
35) C15(118) #2	26.35	19665028m	0.07681	ng
36) C16(153) #2	26.94	21897808	0.08130	ng
37) C15(105) #2	27.21	30386997	0.08131	ng
38) C16(138) #2	27.78	20406752m	0.07930	ng
39) C17(187) #2	28.14	22441148	0.08067	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7518.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0423\M7518.D\ECD2B.CH
 Acq On : 11-8-2014 01:23:37 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:25:48 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:25:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	32397053	0.08245	ng
41)	Cl7(180) #2	29.59	29398040	0.08330	ng
42)	Cl7(170) #2	30.22	32001753	0.08298	ng
43)	Cl8(195) #2	31.09	30370110m	0.08555	ng
44)	Cl9(206) #2	32.18	27450045m	0.08571	ng
45)	Cl10(209) #2	32.62	22009598m	0.08881	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7518.D MM0417C.M Mon Nov 24 14:06:13 2014 046776CFS

Signal #1 : I:\M\DATA\SM0423\M7529.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0423\M7529.D\ECD2B.CH
 Acq On : 11-8-2014 09:35:22 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:44:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:44:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3751383	0.10000	ng
10) I C16(161)	23.22	8260707m	0.10000	ng
24) I C15(96) #2	20.52	19093439m	0.10000	ng
33) I C16(161) #2	26.79	46464449	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2733749m	0.07819	ng
Spiked Amount	0.0800	Recovery	=	97.74%
11) s C16(152)	20.48	3586354	0.07823	ng
Spiked Amount	0.0803	Recovery	=	97.40%
27) s C13(34) #2	16.48	14649316m	0.07771	ng
Spiked Amount	0.0800	Recovery	=	97.14%
34) s C16(152) #2	23.57	18241756m	0.08032	ng
Spiked Amount	0.0803	Recovery	=	100.00%
Target Compounds				
2) C12(8)	10.21	1655156	0.07745	ng
3) C13(18)	12.13	2005445	0.07550	ng
5) C13(28)	14.21	3901937m	0.08129	ng
6) C14(52)	15.84	2750707	0.07761	ng
7) C14(44)	16.70	3772695m	0.07844	ng
8) C14(66)	18.60	4268081	0.07801	ng
9) C15(101)	19.73	4007140m	0.07273	ng
12) C15(118)	22.40	4158587m	0.07197	ng
13) C16(153)	23.45 TW	4525673m	0.08117	ng
14) C15(105)	23.46 TW	5158869m	0.07349	ng
15) C16(138)	24.54	5456408	0.07681	ng
16) C17(187)	25.29	4795518m	0.07728	ng
17) C16(128)	25.64	5504651m	0.07919	ng
18) C17(180)	27.16	5705032m	0.07733	ng
19) C17(170)	27.96	6419413	0.07665	ng
20) C18(195)	29.04	6108166m	0.07764	ng
21) C19(206)	30.31	5782376m	0.07609	ng
22) C110(209)	30.90	4697678m	0.07613	ng
25) C12(8) #2	13.11	8992569m	0.07463	ng
26) C13(18) #2	14.99	10361432m	0.07581	ng
28) C13(28) #2	17.76	20544618m	0.07854	ng
29) C14(52) #2	19.15	11662090m	0.07544	ng
30) C14(44) #2	19.96	22789369m	0.08572	ng
31) C14(66) #2	22.36	24370433m	0.08241	ng
32) C15(101) #2	23.24	12531871m	0.07358	ng
35) C15(118) #2	26.35	21715136m	0.07650	ng
36) C16(153) #2	26.94	23683075	0.07924	ng
37) C15(105) #2	27.20	33255856	0.08028	ng
38) C16(138) #2	27.78	24510129m	0.08573	ng
39) C17(187) #2	28.14	24866000	0.08064	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7529.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0423\M7529.D\ECD2B.CH
 Acq On : 11-8-2014 09:35:22 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:44:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:44:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	34524821m	0.07925	ng
41)	Cl7(180) #2	29.59	31678245m	0.08098	ng
42)	Cl7(170) #2	30.22	33650252m	0.07875	ng
43)	Cl8(195) #2	31.09	34402027m	0.08739	ng
44)	Cl9(206) #2	32.18	31930702m	0.08987	ng
45)	Cl10(209) #2	32.62	25551568m	0.09298	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7540.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0423\M7540.D\ECD2B.CH
 Acq On : 11-8-2014 05:45:56 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:54:20 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:54:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3843679	0.10000	ng
10) I C16(161)	23.22	8987186m	0.10000	ng
24) I C15(96) #2	20.52	18028230m	0.10000	ng
33) I C16(161) #2	26.79	44794389	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1516634	0.03871	ng
Spiked Amount	0.0400	Recovery	=	96.78%
11) s C16(152)	20.48	2127789	0.04038	ng
Spiked Amount	0.0402	Recovery	=	100.55%
27) s C13(34) #2	16.48	7363848m	0.03846	ng
Spiked Amount	0.0400	Recovery	=	96.15%
34) s C16(152) #2	23.58	9469126m	0.04206	ng
Spiked Amount	0.0402	Recovery	=	104.73%
Target Compounds				
2) C12(8)	10.21	925151	0.03875	ng
3) C13(18)	12.13	1141257	0.03806	ng
5) C13(28)	14.21	2126251	0.04070	ng
6) C14(52)	15.84	1565620	0.03887	ng
7) C14(44)	16.70	2117750m	0.04022	ng
8) C14(66)	18.60	2375299	0.03986	ng
9) C15(101)	19.73	2213208m	0.03755	ng
12) C15(118)	22.39	2378441m	0.03561	ng
13) C16(153)	23.44 TW	2410025m	0.03843	ng
14) C15(105)	23.45 TW	3041500m	0.03749	ng
15) C16(138)	24.54	3094517m	0.03827	ng
16) C17(187)	25.29	2766445m	0.03922	ng
17) C16(128)	25.64	2824581m	0.03618	ng
18) C17(180)	27.16	3377834	0.04081	ng
19) C17(170)	27.96	3696153m	0.03940	ng
20) C18(195)	29.05	3588802m	0.04087	ng
21) C19(206)	30.31	3484572m	0.04120	ng
22) C110(209)	30.90	2897952	0.04200	ng
25) C12(8) #2	13.11	4598089m	0.03794	ng
26) C13(18) #2	14.99	5263764m	0.03696	ng
28) C13(28) #2	17.76	9836953m	0.03776	ng
29) C14(52) #2	19.15	6092092m	0.03930	ng
30) C14(44) #2	19.97	11077464m	0.04187	ng
31) C14(66) #2	22.36	11909972m	0.04065	ng
32) C15(101) #2	23.25	6010830m	0.03592	ng
35) C15(118) #2	26.36	11496904m	0.04013	ng
36) C16(153) #2	26.94	12623965	0.04210	ng
37) C15(105) #2	27.20	15668336m	0.03871	ng
38) C16(138) #2	27.78	11066995m	0.04054	ng
39) C17(187) #2	28.14	12790846	0.04212	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7540.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0423\M7540.D\ECD2B.CH
 Acq On : 11-8-2014 05:45:56 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:54:20 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:54:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	17835996	0.04194	ng
41)	Cl7(180) #2	29.59	15752102m	0.04143	ng
42)	Cl7(170) #2	30.22	17279447m	0.04177	ng
43)	Cl8(195) #2	31.09	16239128m	0.04284	ng
44)	Cl9(206) #2	32.18	14870479m	0.04353	ng
45)	Cl10(209) #2	32.62	11797428m	0.04431	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7551.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0423\M7551.D\ECD2B.CH
 Acq On : 11-9-2014 01:58:24 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 16:11:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 16:11:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3751725	0.10000	ng
10) I C16(161)	23.22	8549030m	0.10000	ng
24) I C15(96) #2	20.51	17039195m	0.10000	ng
33) I C16(161) #2	26.79	42450268	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1463762	0.03821	ng
Spiked Amount	0.0400	Recovery	=	95.53%
11) s C16(152)	20.48	2016269m	0.04021	ng
Spiked Amount	0.0402	Recovery	=	100.12%
27) s C13(34) #2	16.48	6964107m	0.03849	ng
Spiked Amount	0.0400	Recovery	=	96.23%
34) s C16(152) #2	23.57	9348477m	0.04397	ng
Spiked Amount	0.0402	Recovery	=	109.49%
Target Compounds				
2) C12(8)	10.21	877649	0.03750	ng
3) C13(18)	12.13	1100062	0.03750	ng
5) C13(28)	14.21	2011016	0.03931	ng
6) C14(52)	15.83	1496649	0.03790	ng
7) C14(44)	16.70	2035261m	0.03953	ng
8) C14(66)	18.60	2231011	0.03820	ng
9) C15(101)	19.73	2208555m	0.03845	ng
12) C15(118)	22.39	2232797m	0.03509	ng
13) C16(153)	23.45 T	2318793m	0.03889	ng
14) C15(105)	23.45 T	3033397m	0.03950	ng
15) C16(138)	24.53	2951341m	0.03838	ng
16) C17(187)	25.29	2659254m	0.03966	ng
17) C16(128)	25.64	2820245m	0.03805	ng
18) C17(180)	27.16	3119988m	0.03955	ng
19) C17(170)	27.96	3521640m	0.03947	ng
20) C18(195)	29.04	3419974m	0.04095	ng
21) C19(206)	30.31	3329650m	0.04139	ng
22) C110(209)	30.90	2761508m	0.04208	ng
25) C12(8) #2	13.10	4366722m	0.03814	ng
26) C13(18) #2	14.99	4971479m	0.03693	ng
28) C13(28) #2	17.76	8905066m	0.03604	ng
29) C14(52) #2	19.14	5483189m	0.03724	ng
30) C14(44) #2	19.96	9765448m	0.03885	ng
31) C14(66) #2	22.36	11083160m	0.03997	ng
32) C15(101) #2	23.24	6181574m	0.03941	ng
35) C15(118) #2	26.35	10234601m	0.03746	ng
36) C16(153) #2	26.93	10668579m	0.03711	ng
37) C15(105) #2	27.20	14422890m	0.03755	ng
38) C16(138) #2	27.78	11207303m	0.04333	ng
39) C17(187) #2	28.14	12044255	0.04183	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7551.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0423\M7551.D\ECD2B.CH
 Acq On : 11-9-2014 01:58:24 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 16:11:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 16:11:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	16065969m	0.03978	ng
41)	Cl7(180) #2	29.58	14781380m	0.04101	ng
42)	Cl7(170) #2	30.21	16093201m	0.04103	ng
43)	Cl8(195) #2	31.09	15294545m	0.04257	ng
44)	Cl9(206) #2	32.18	14073806m	0.04347	ng
45)	Cl10(209) #2	32.62	11203443m	0.04440	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7562.D\ECD1A.CH Vial: 57
 Signal #2 : I:\M\DATA\SM0423\M7562.D\ECD2B.CH
 Acq On : 09 Nov 2014 10:09 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 16:24:30 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 16:24:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3623258m	0.10000	ng
10) I C16(161)	23.22	7822875m	0.10000	ng
24) I C15(96) #2	20.52	19132613m	0.10000	ng
33) I C16(161) #2	26.79	49440212m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2593807	0.07662	ng
Spiked Amount	0.0800	Recovery	=	95.77%
11) s C16(152)	20.48	3540517	0.08183	ng
Spiked Amount	0.0803	Recovery	=	101.88%
27) s C13(34) #2	16.48	14288566m	0.07542	ng
Spiked Amount	0.0800	Recovery	=	94.27%
34) s C16(152) #2	23.57	20001012m	0.08278	ng
Spiked Amount	0.0803	Recovery	=	103.06%
Target Compounds				
2) C12(8)	10.21	1536995	0.07404	ng
3) C13(18)	12.13	1928005	0.07509	ng
5) C13(28)	14.21	3522465m	0.07546	ng
6) C14(52)	15.84	2544044m	0.07380	ng
7) C14(44)	16.70	3528329m	0.07568	ng
8) C14(66)	18.60	3827069m	0.07187	ng
9) C15(101)	19.74	3986373m	0.07507	ng
12) C15(118)	22.40	3826363m	0.06975	ng
13) C16(153)	23.44 TW	4003325m	0.07556	ng
14) C15(105)	23.45 TW	5309832m	0.08058	ng
15) C16(138)	24.54	5245988	0.07805	ng
16) C17(187)	25.29	4574959m	0.07789	ng
17) C16(128)	25.64	5251642m	0.07981	ng
18) C17(180)	27.16	5426114m	0.07768	ng
19) C17(170)	27.96	6139810m	0.07745	ng
20) C18(195)	29.04	5969741m	0.08022	ng
21) C19(206)	30.31	5762167m	0.08021	ng
22) C110(209)	30.90	4739183m	0.08135	ng
25) C12(8) #2	13.11	8851312m	0.07317	ng
26) C13(18) #2	15.00	10113388m	0.07356	ng
28) C13(28) #2	17.76	19338611m	0.07340	ng
29) C14(52) #2	19.15	11062691m	0.07100	ng
30) C14(44) #2	19.97	22976040m	0.08630	ng
31) C14(66) #2	22.36	24196730m	0.08160	ng
32) C15(101) #2	23.24	13388247m	0.07853	ng
35) C15(118) #2	26.35	20663569m	0.06794	ng
36) C16(153) #2	26.94	22458388m	0.07023	ng
37) C15(105) #2	27.20	32330761m	0.07333	ng
38) C16(138) #2	27.78	24818428m	0.08170	ng
39) C17(187) #2	28.14	25148855m	0.07658	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7562.D\ECD1A.CH Vial: 57
 Signal #2 : I:\M\DATA\SM0423\M7562.D\ECD2B.CH
 Acq On : 09 Nov 2014 10:09 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 16:24:30 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 16:24:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	35747662m	0.07711	ng
41)	Cl7(180) #2	29.59	33587863m	0.08070	ng
42)	Cl7(170) #2	30.22	37097759m	0.08156	ng
43)	Cl8(195) #2	31.09	35603688m	0.08504	ng
44)	Cl9(206) #2	32.18	33840769m	0.08952	ng
45)	Cl10(209) #2	32.62	26501879m	0.09065	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:34 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2038180	0.10000	ng
4) I C15(96) #2	20.51	12872032m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	102746m	0.00162	ng
5) C15(101) #2	23.23	516701m	0.00035	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:38 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
4) I C15(96) #2	20.51	13386960	0.10000	ng
Target Compounds				
2) C15(101)	19.73	341674m	0.00915	ng
5) C15(101) #2	23.22	3258192m	0.02515	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
4) I C15(96) #2	20.51	13612237m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	753837m	0.02114	ng
5) C15(101) #2	23.22	5441576m	0.04378	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7208.D MM0417F.M Fri Dec 05 16:10:57 2014

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:46 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
4) I C15(96) #2	20.51	14869473m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	1636592m	0.04499	ng
5) C15(101) #2	23.21	11842524m	0.08946	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7209.D MM0417F.M Fri Dec 05 16:10:58 2014

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:50 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
4) I C15(96) #2	20.51	15494530m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2973113m	0.08080	ng
5) C15(101) #2	23.21	25660002m	0.18179	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:54 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2539311m	0.10000	ng
4) I C15(96) #2	20.51	15194166m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	11042195m	0.36809	ng
5) C15(101) #2	23.22 e	68456197m	0.44286	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:24:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:22:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	

Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
4) I C15(96) #2	20.51	13936712m	0.10000	ng	
Target Compounds					
2) C15(101)	19.73	1516710m	0.03859	ng	-3.5
5) C15(101) #2	23.21	11320633m	0.03850	ng	-3.8

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7507.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0423\M7507.D\ECD2B.CH
 Acq On : 11-7-2014 05:12:01 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:13 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 08:53:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3442942m	0.10000	ng
4) I C15(96) #2	20.52	16878951	0.10000	ng
Target Compounds				
2) C15(101)	19.75	2182124m	0.04057	ng
5) C15(101) #2	23.23	13156076m	0.03692	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7518.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0423\M7518.D\ECD2B.CH
 Acq On : 11-8-2014 01:23:37 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:01 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:54 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3718834	0.10000	ng
4) I C15(96) #2	20.52	17789588m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	4901723m	0.08778	ng
5) C15(101) #2	23.21	29390001m	0.08153	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7529.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0423\M7529.D\ECD2B.CH
 Acq On : 11-8-2014 09:35:22 AM Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:38 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3751383	0.10000	ng
4) I C15(96) #2	20.52	19209692m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	4591671m	0.08119	ng
5) C15(101) #2	23.21	33338441m	0.08610	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7540.D\ECD1A.CH Vial: 35
 Signal #2 : I:\M\DATA\SM0423\M7540.D\ECD2B.CH
 Acq On : 11-8-2014 05:45:56 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:51 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3843679	0.10000	ng
4) I C15(96) #2	20.52	17750585m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2255746m	0.03739	ng
5) C15(101) #2	23.22	14945771m	0.03994	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7551.D\ECD1A.CH Vial: 46
 Signal #2 : I:\M\DATA\SM0423\M7551.D\ECD2B.CH
 Acq On : 11-9-2014 01:58:24 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:54:07 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:59 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3751725	0.10000	ng
4) I C15(96) #2	20.51	17017851m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2336180m	0.03982	ng
5) C15(101) #2	23.21	14492358m	0.04041	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7562.D\ECD1A.CH Vial: 57
 Signal #2 : I:\M\DATA\SM0423\M7562.D\ECD2B.CH
 Acq On : 09 Nov 2014 10:09 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:54:21 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:54:14 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3597732m	0.10000	ng
4) I C15(96) #2	20.52	19215719m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	4317658m	0.07953	ng
5) C15(101) #2	23.22	29349850m	0.07480	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7508.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0423\M7508.D\ECD2B.CH
 Acq On : 11-7-2014 05:56:32 PM Operator: RR
 Sample : CD586PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:59:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:59:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3500251	100.00000	ng
10) I C16(161)	23.22	6760589m	100.00000	ng
24) I C15(96) #2	20.52	15448268m	100.00000	ng
33) I C16(161) #2	26.80	36429176m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	8541116	349.45851	ng
Spiked Amount	400.0000	Recovery	=	87.36%
11) s C16(152)	20.49	12494524m	401.87396	ng
Spiked Amount	401.6000	Recovery	=	100.07%
27) s C13(34) #2	16.48	45539395m	393.89581	ng
Spiked Amount	400.0000	Recovery	=	98.47%
34) s C16(152) #2	23.63	63379901m	324.17876	ng
Spiked Amount	401.6000	Recovery	=	80.72%
Target Compounds				
2) C12(8)	10.04	840	BelowCal	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.11	239819	BelowCal	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7508.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0423\M7508.D\ECD2B.CH
 Acq On : 11-7-2014 05:56:32 PM Operator: RR
 Sample : CD586PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:59:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:59:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7509.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0423\M7509.D\ECD2B.CH
 Acq On : 11-7-2014 06:40:55 PM Operator: RR
 Sample : CD587LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:59:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:59:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.40	3678408	100.00000	ng	
10) I C16(161)	23.22	7211167	100.00000	ng	
24) I C15(96) #2	20.52	16443161m	100.00000	ng	
33) I C16(161) #2	26.80	38220438m	100.00000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	8969369	349.06106	ng	87%
Spiked Amount	400.0000	Recovery	=	87.27%	
11) s C16(152)	20.49	12947904	387.44396	ng	96%
Spiked Amount	401.6000	Recovery	=	96.48%	
27) s C13(34) #2	16.48	48277608m	391.48799	ng	98%
Spiked Amount	400.0000	Recovery	=	97.87%	
34) s C16(152) #2	23.63	76703874m	366.41650	ng	91%
Spiked Amount	401.6000	Recovery	=	91.24%	
Target Compounds					
2) C12(8)	10.21	671500	28.07946	ng	75%
3) C13(18)	12.13	833561	27.53494	ng	73%
5) C13(28)	14.21	1545540	30.05717	ng	80%
6) C14(52)	15.84	1158103	28.32826	ng	76%
7) C14(44)	16.71	1585359	30.51378	ng	81%
8) C14(66)	18.60	1709436	29.03847	ng	77%
9) C15(101)	19.74	1733122m	30.27066	ng	81%
12) C15(118)	22.40	1864474	34.70306	ng	93%
13) C16(153)	23.45 TW	1922848m	38.20572	ng	102%
14) C15(105)	23.46 TW	2057364m	31.04102	ng	83%
15) C16(138)	24.55	2334186	35.79819	ng	95%
16) C17(187)	25.30	2017097	35.35507	ng	94%
17) C16(128)	25.64	1813950m	28.71392	ng	77%
18) C17(180)	27.17	2361376	35.24816	ng	94%
19) C17(170)	27.96	2609653m	34.42379	ng	92%
20) C18(195)	29.05	2560360m	36.12568	ng	96%
21) C19(206)	30.31	2381808m	34.84030	ng	93%
22) C110(209)	30.90	2041908m	36.62183	ng	98%
25) C12(8) #2	13.11	3624241m	32.26461	ng	86%
26) C13(18) #2	15.00	4196029m	31.46558	ng	84%
28) C13(28) #2	17.77	7734536m	32.14675	ng	86%
29) C14(52) #2	19.15	5042417m	35.30158	ng	94%
30) C14(44) #2	19.97	8691427m	35.60685	ng	95%
31) C14(66) #2	22.36	9368622m	34.65081	ng	92%
32) C15(101) #2	23.25	4655618m	29.92142	ng	80%
35) C15(118) #2	26.36	9685438m	39.57196	ng	106%
36) C16(153) #2	26.94	10423582	40.61371	ng	108%
37) C15(105) #2	27.21	13533411	39.20289	ng	105%
38) C16(138) #2	27.79	8263347m	35.44250	ng	95%
39) C17(187) #2	28.14	9643635m	36.93422	ng	98%

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7509.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0423\M7509.D\ECD2B.CH
 Acq On : 11-7-2014 06:40:55 PM Operator: RR
 Sample : CD587LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 15:59:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 15:59:53 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.55	13372770m	36.64993	ng	98%
41)	Cl7(180) #2	29.59	12032155m	36.94300	ng	99%
42)	Cl7(170) #2	30.22	15210448	43.11658	ng	115%
43)	Cl8(195) #2	31.09	11915694m	36.73435	ng	98%
44)	Cl9(206) #2	32.19	10437788m	35.69919	ng	95%
45)	Cl10(209) #2	32.63	8589308m	37.64810	ng	100%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7510.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0423\M7510.D\ECD2B.CH
 Acq On : 11-7-2014 07:25:27 PM Operator: RR
 Sample : M8157-P(2) Inst : INST. M
 Misc : NBH14-0021 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:52:37 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3606887	95.00000	ng
10) I C16(161)	23.22	7126224	95.00000	ng
24) I C15(96) #2	20.52	14883017m	95.00000	ng
33) I C16(161) #2	26.80	33506285m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.41	8775803	330.47096	ng
Spiked Amount	379.8670	Recovery	=	87.00%
11) s C16(152)	20.49	12265199m	349.10295	ng
Spiked Amount	381.3865	Recovery	=	91.54%
27) s C13(34) #2	16.48	43366279m	367.65654	ng
Spiked Amount	379.8670	Recovery	=	96.79%
34) s C16(152) #2	23.63	58127035	307.20379	ng
Spiked Amount	381.3865	Recovery	=	80.55%
Target Compounds				
2) C12(8)	10.22	300050	9.82599	ng
3) C13(18)	12.13	639889	19.28328	ng
5) C13(28)	14.20	2253037m	44.16447	ng
6) C14(52)	15.84	2123033	57.08882	ng
7) C14(44)	16.71	1296479	23.55792	ng
8) C14(66)	18.63	1549255m	25.24899	ng
9) C15(101)	19.72	2425028	42.11171	ng
12) C15(118)	22.40	3234548m	61.09103	ng
13) C16(153)	23.44	2468393m	47.70758	ng
14) C15(105)	23.46	1436938m	19.96715	ng
15) C16(138)	24.54	3402567m	51.64459	ng
16) C17(187)	25.30	356241m	4.00654	ng
17) C16(128)	25.63	952199m	14.08661	ng
18) C17(180)	27.16	600960m	7.15576	ng
19) C17(170)	27.97	499333m	4.96473	ng
20) C18(195)	29.04	88338m	BelowCal	ng
21) C19(206)	30.31	67283m	BelowCal	ng
22) C110(209)	30.91	37206m	BelowCal	ng
25) C12(8) #2	13.11	1343460m	10.84316	ng
26) C13(18) #2	15.00	3066916m	22.99889	ng
28) C13(28) #2	17.77	11508640m	52.24128	ng
29) C14(52) #2	19.15	10131144m	80.82794	ng
30) C14(44) #2	19.96	7124885	30.39458	ng
31) C14(66) #2	22.36	6054186m	22.79726	ng
32) C15(101) #2	23.23	6398444m	44.96658	ng
35) C15(118) #2	26.34	14397715m	66.47669	ng
36) C16(153) #2	26.94	10643785	45.56225	ng
37) C15(105) #2	27.21	7011932	21.33729	ng
38) C16(138) #2	27.78	11966127	55.59618	ng
39) C17(187) #2	28.14	1762692m	5.22898	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7510.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0423\M7510.D\ECD2B.CH
 Acq On : 11-7-2014 07:25:27 PM Operator: RR
 Sample : M8157-P(2) Inst : INST. M
 Misc : NBH14-0021 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:52:37 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	4663579m	12.69718	ng
41)	Cl7(180) #2	29.59	2932036m	8.51453	ng
42)	Cl7(170) #2	30.22	2165233m	5.48958	ng
43)	Cl8(195) #2	31.09	325534m	BelowCal	ng
44)	Cl9(206) #2	32.19	271923m	BelowCal	ng
45)	Cl10(209) #2	32.63	136842m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0423\M7511.D\ECD1A.CH Vial: 6
 Acq On : 11-7-2014 08:09:52 PM Operator: RR
 Sample : M8169-P(2) Inst : INST. M
 Misc : NBH14-0077 5-128 14-0496 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0423\M7511.D\ECD2B.CH Vial: 6
 Acq On : 11-7-2014 08:09:51 PM Operator: RR
 Sample : M8169-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Nov 24 07:52:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)

Title : NBH
 Last Update : Mon Nov 24 07:52:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I Cl5(96)	17.40	3661050m	95.00000	ng
10) I Cl6(161)	23.22	7429651m	95.00000	ng
24) I Cl5(96) #2	20.52	14542091m	95.00000	ng
33) I Cl6(161) #2	26.79	32696655m	95.00000	ng
System Monitoring Compounds				
4) s Cl3(34)	13.40	9348216m	357.35869	ng
Spiked Amount	379.8670	Recovery	=	94.07%
11) s Cl6(152)	20.49	11640302m	311.16416	ng
Spiked Amount	381.3865	Recovery	=	81.59%
27) s Cl3(34) #2	16.48	43921541m	388.52420	ng
Spiked Amount	379.8670	Recovery	=	102.28%
34) s Cl6(152) #2	23.63	51474148m	282.31761	ng
Spiked Amount	381.3865	Recovery	=	74.02%
Target Compounds				
2) Cl2(8)	10.21	417013	14.97362	ng
3) Cl3(18)	12.14	350391	8.08191	ng
5) Cl3(28)	14.21	2825340m	55.65169	ng
6) Cl4(52)	15.84	1032793m	23.40959	ng
7) Cl4(44)	16.71	658143m	10.12986	ng
8) Cl4(66)	18.61	1951171m	32.14353	ng
9) Cl5(101)	19.72	1737504	28.98297	ng
12) Cl5(118)	22.40	4048245m	74.52264	ng
13) Cl6(153)	23.44	3404048m	63.92036	ng
14) Cl5(105)	23.46	1616120m	21.76286	ng
15) Cl6(138)	24.54	3981241m	58.40606	ng
16) Cl7(187)	25.30	547705m	7.03003	ng
17) Cl6(128)	25.64	1148530m	16.41873	ng
18) Cl7(180)	27.16	706942m	8.32045	ng
19) Cl7(170)	27.97	627442m	6.32313	ng
20) Cl8(195)	29.05	131573m	0.24351	ng
21) Cl9(206)	30.31	165623m	0.99469	ng
22) Cl10(209)	30.91	69971m	BelowCal	ng
25) Cl2(8) #2	13.11	1759384m	15.45722	ng
26) Cl3(18) #2	14.99	1624014m	9.97423	ng
28) Cl3(28) #2	17.77	8962086m	40.91165	ng
29) Cl4(52) #2	19.15	4418257m	33.19346	ng
30) Cl4(44) #2	19.96	3181524m	12.77668	ng
31) Cl4(66) #2	22.36	8133121m	32.26399	ng
32) Cl5(101) #2	23.23	4598126m	32.17820	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0423\M7511.D\ECD1A.CH Vial: 6
 Acq On : 11-7-2014 08:09:52 PM Operator: RR
 Sample : M8169-P(2) Inst : INST. M
 Misc : NBH14-0077 5-128 14-0496 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0423\M7511.D\ECD2B.CH Vial: 6
 Acq On : 11-7-2014 08:09:51 PM Operator: RR
 Sample : M8169-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Nov 24 07:52:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)

Title : NBH
 Last Update : Mon Nov 24 07:52:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
35)	Cl5(118) #2	26.34	17593375m	84.34282	ng
36)	Cl6(153) #2	26.94	12958513m	57.75428	ng
37)	Cl5(105) #2	27.21	6772803m	21.10193	ng
38)	Cl6(138) #2	27.78	12399144m	58.98633	ng
39)	Cl7(187) #2	28.14	2840887m	10.38708	ng
40)	Cl6(128) #2	28.55	5131563m	14.57367	ng
41)	Cl7(180) #2	29.59	3324085m	10.18575	ng
42)	Cl7(170) #2	30.22	2483026m	6.70955	ng
43)	Cl8(195) #2	31.09	448747m	0.27700	ng
44)	Cl9(206) #2	32.19	535084m	0.97275	ng
45)	Cl10(209) #2	32.63	282525m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7512.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0423\M7512.D\ECD2B.CH
 Acq On : 11-7-2014 08:54:35 PM Operator: RR
 Sample : M8172-P(2) Inst : INST. M
 Misc : NBH14-0089 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:52:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:52:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3497272m	95.00000	ng
10) I C16(161)	23.22	6819154m	95.00000	ng
24) I C15(96) #2	20.52	17235230m	95.00000	ng
33) I C16(161) #2	26.79	41696747m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8835062	351.07027	ng
Spiked Amount	379.8670	Recovery	=	92.42%
11) s C16(152)	20.48	11320121m	333.87223	ng
Spiked Amount	381.3865	Recovery	=	87.54%
27) s C13(34) #2	16.48	49851761m	363.60632	ng
Spiked Amount	379.8670	Recovery	=	95.72%
34) s C16(152) #2	23.63	63094435m	272.68217	ng
Spiked Amount	381.3865	Recovery	=	71.50%
Target Compounds				
2) C12(8)	10.21	205038m	5.74789	ng
3) C13(18)	12.13	210706m	3.29980	ng
5) C13(28)	14.20	1068010m	19.96499	ng
6) C14(52)	15.84	531867m	9.70468	ng
7) C14(44)	16.70	350420m	4.27495	ng
8) C14(66)	18.61	1042833m	16.60156	ng
9) C15(101)	19.72	914706	15.08019	ng
12) C15(118)	22.40	1746846m	32.63009	ng
13) C16(153)	23.43	1440184m	28.43057	ng
14) C15(105)	23.46	646942m	8.03453	ng
15) C16(138)	24.54	1744031m	26.29456	ng
16) C17(187)	25.29	245053m	2.21916	ng
17) C16(128)	25.63	526454m	7.84001	ng
18) C17(180)	27.16	288869m	2.64455	ng
19) C17(170)	27.97	267479m	2.05416	ng
20) C18(195)	29.04	53887m	BelowCal	ng
21) C19(206)	30.31	86231m	BelowCal	ng
22) C110(209)	30.90	49917m	BelowCal	ng
25) C12(8) #2	13.11	1045932m	6.43398	ng
26) C13(18) #2	14.99	1229619m	4.49457	ng
28) C13(28) #2	17.77	5789100m	21.10740	ng
29) C14(52) #2	19.15	2672775m	15.45689	ng
30) C14(44) #2	19.96	2026178m	6.03790	ng
31) C14(66) #2	22.36	5425689m	17.13768	ng
32) C15(101) #2	23.23	3166646m	17.04325	ng
35) C15(118) #2	26.34	10704821m	38.13535	ng
36) C16(153) #2	26.94	7659095m	24.72756	ng
37) C15(105) #2	27.21	4236328m	9.40268	ng
38) C16(138) #2	27.78	7348177m	27.35546	ng
39) C17(187) #2	28.14	1758548m	3.65627	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7512.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0423\M7512.D\ECD2B.CH
 Acq On : 11-7-2014 08:54:35 PM Operator: RR
 Sample : M8172-P(2) Inst : INST. M
 Misc : NBH14-0089 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:52:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:52:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3020724m	5.62512	ng
41)	Cl7(180) #2	29.59	1908056m	3.57410	ng
42)	Cl7(170) #2	30.22	1657235m	2.80454	ng
43)	Cl8(195) #2	31.09	254368m	BelowCal	ng
44)	Cl9(206) #2	32.18	225536m	BelowCal	ng
45)	Cl10(209) #2	32.64	166220m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7512.D MM0417C.M Mon Nov 24 14:05:55 2014 046776CFS

Signal #1 : I:\M\DATA\SM0423\M7513.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0423\M7513.D\ECD2B.CH
 Acq On : 11-7-2014 09:39:31 PM Operator: RR
 Sample : M8173-P(2) Inst : INST. M
 Misc : NBH14-0093 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:36:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:36:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3596588m	95.00000	ng
10) I C16(161)	23.23	7718853m	95.00000	ng
24) I C15(96) #2	20.52	14123699m	95.00000	ng
33) I C16(161) #2	26.80	32817040m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9808291	401.55619	ng
Spiked Amount	379.8670	Recovery	=	105.71%
11) s C16(152)	20.49	12087102m	310.96827	ng
Spiked Amount	381.3865	Recovery	=	81.54%
27) s C13(34) #2	16.48	44816721m	420.83129	ng
Spiked Amount	379.8670	Recovery	=	110.78%
34) s C16(152) #2	23.63	53786886m	292.42002	ng
Spiked Amount	381.3865	Recovery	=	76.67%
Target Compounds				
2) C12(8)	10.21	639886m	25.87615	ng
3) C13(18)	12.14	532403m	15.22534	ng
5) C13(28)	14.20	3819609m	79.01649	ng
6) C14(52)	15.84	1829663m	48.11221	ng
7) C14(44)	16.71	1255246m	22.76995	ng
8) C14(66)	18.61	3211848m	56.76985	ng
9) C15(101)	19.72	3208227	56.96507	ng
12) C15(118)	22.40	7707912m	145.12902	ng
13) C16(153)	23.44	5549347m	102.76709	ng
14) C15(105)	23.46	2688732m	36.76739	ng
15) C16(138)	24.54	7099804m	103.81559	ng
16) C17(187)	25.30	952102m	13.37708	ng
17) C16(128)	25.63	2046231m	28.80561	ng
18) C17(180)	27.16	1171694m	14.42822	ng
19) C17(170)	27.97	1072926m	11.48366	ng
20) C18(195)	29.05	200445m	1.07195	ng
21) C19(206)	30.30	261133m	2.18873	ng
22) C110(209)	30.91	119539m	0.44494	ng
25) C12(8) #2	13.11	2836805m	27.63053	ng
26) C13(18) #2	15.00	2685492m	20.78087	ng
28) C13(28) #2	17.77	15632982m	76.93930	ng
29) C14(52) #2	19.15	8218443m	67.92632	ng
30) C14(44) #2	19.96	5591821m	24.73213	ng
31) C14(66) #2	22.36	14041078m	59.86380	ng
32) C15(101) #2	23.23	8382552m	63.04764	ng
35) C15(118) #2	26.34	31375078m	154.05609	ng
36) C16(153) #2	26.94	23006620m	104.71101	ng
37) C15(105) #2	27.21	12184524m	39.12074	ng
38) C16(138) #2	27.78	22787687m	106.10078	ng
39) C17(187) #2	28.14	5543176m	22.67392	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7513.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0423\M7513.D\ECD2B.CH
 Acq On : 11-7-2014 09:39:31 PM Operator: RR
 Sample : M8173-P(2) Inst : INST. M
 Misc : NBH14-0093 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:36:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:36:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	9117550m	27.28751	ng
41)	Cl7(180) #2	29.59	5419527m	17.65340	ng
42)	Cl7(170) #2	30.22	4203534m	12.31557	ng
43)	Cl8(195) #2	31.09	697589m	1.16452	ng
44)	Cl9(206) #2	32.18	860717m	2.25392	ng
45)	Cl10(209) #2	32.63	375861m	0.43087	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7514.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0423\M7514.D\ECD2B.CH
 Acq On : 07 Nov 2014 10:24 pm Operator: RR
 Sample : M8173DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0093 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:08 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:52:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3594048m	95.00000	ng
10) I C16(161)	23.22	7577535m	95.00000	ng
24) I C15(96) #2	20.52	15122669m	95.00000	ng
33) I C16(161) #2	26.79	31356312m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9641420	389.47255	ng
Spiked Amount	379.8670	Recovery	=	102.53%
11) s C16(152)	20.49	11961569m	314.00524	ng
Spiked Amount	381.3865	Recovery	=	82.33%
27) s C13(34) #2	16.48	46734140m	402.94478	ng
Spiked Amount	379.8670	Recovery	=	106.08%
34) s C16(152) #2	23.63	54717013m	308.76509	ng
Spiked Amount	381.3865	Recovery	=	80.96%
Target Compounds				
2) C12(8)	10.21	736781m	30.56409	ng
3) C13(18)	12.13	567817m	16.59701	ng
5) C13(28)	14.21	4018671m	83.64886	ng
6) C14(52)	15.84	1927034m	51.18041	ng
7) C14(44)	16.71	1298095m	23.68894	ng
8) C14(66)	18.61	3400595m	60.49172	ng
9) C15(101)	19.72	3229338	57.40931	ng
12) C15(118)	22.40	7520120m	144.12545	ng
13) C16(153)	23.43	5831992m	110.49906	ng
14) C15(105)	23.46	2706977m	37.80307	ng
15) C16(138)	24.54	6948608m	103.47831	ng
16) C17(187)	25.30	859050m	12.09822	ng
17) C16(128)	25.63	1961905m	28.10806	ng
18) C17(180)	27.16	1160178m	14.56982	ng
19) C17(170)	27.97	1027983m	11.16744	ng
20) C18(195)	29.04	214917m	1.31216	ng
21) C19(206)	30.31	237851m	1.93602	ng
22) C110(209)	30.91	118122m	0.45785	ng
25) C12(8) #2	13.11	3403894m	31.37598	ng
26) C13(18) #2	15.00	2993025m	21.86264	ng
28) C13(28) #2	17.77	17114565m	78.81525	ng
29) C14(52) #2	19.15	9193448m	71.29462	ng
30) C14(44) #2	19.96	6175156m	25.57838	ng
31) C14(66) #2	22.36	14488267m	57.53712	ng
32) C15(101) #2	23.23	8772811m	61.58020	ng
35) C15(118) #2	26.34	32029263m	165.08323	ng
36) C16(153) #2	26.94	23022601m	109.79586	ng
37) C15(105) #2	27.21	12250620m	41.23688	ng
38) C16(138) #2	27.78	23148619m	112.48094	ng
39) C17(187) #2	28.14	5418618m	23.25562	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7514.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0423\M7514.D\ECD2B.CH
 Acq On : 07 Nov 2014 10:24 pm Operator: RR
 Sample : M8173DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0093 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:08 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:52:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	9121016m	28.65424	ng
41)	Cl7(180) #2	29.59	5159391m	17.58267	ng
42)	Cl7(170) #2	30.22	4115025m	12.65284	ng
43)	Cl8(195) #2	31.09	649835m	1.10178	ng
44)	Cl9(206) #2	32.19	731214m	1.87627	ng
45)	Cl10(209) #2	32.63	385223m	0.57012	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7515.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0423\M7515.D\ECD2B.CH
 Acq On : 07 Nov 2014 11:09 pm Operator: RR
 Sample : M8174-P(2) Inst : INST. M
 Misc : NBH14-0097 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:12 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3825068m	95.00000	ng
10) I C16(161)	23.22	7975678m	95.00000	ng
24) I C15(96) #2	20.52	15723574m	95.00000	ng
33) I C16(161) #2	26.79	31987965m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9035691m	315.70226	ng
Spiked Amount	379.8670	Recovery	=	83.11%
11) s C16(152)	20.49	10746602	260.16374	ng
Spiked Amount	381.3865	Recovery	=	68.22%
27) s C13(34) #2	16.48	38879081m	291.37473	ng
Spiked Amount	379.8670	Recovery	=	76.70%
34) s C16(152) #2	23.63	46592085m	263.67368	ng
Spiked Amount	381.3865	Recovery	=	69.14%
Target Compounds				
2) C12(8)	10.21	597772m	22.16351	ng
3) C13(18)	12.12	709515m	20.40590	ng
5) C13(28)	14.20	3591216m	68.98701	ng
6) C14(52)	15.84	2302739m	58.61009	ng
7) C14(44)	16.74	1927522m	34.57401	ng
8) C14(66)	18.61	3809679m	64.00075	ng
9) C15(101)	19.72	3505626	58.63749	ng
12) C15(118)	22.40	7577885m	137.27011	ng
13) C16(153)	23.43	6885813m	124.94978	ng
14) C15(105)	23.46	3082553m	41.21939	ng
15) C16(138)	24.54	7929058m	112.80949	ng
16) C17(187)	25.30	1065405m	14.68990	ng
17) C16(128)	25.63	2247946m	30.69800	ng
18) C17(180)	27.16	1324533m	15.97031	ng
19) C17(170)	27.97	1151533m	11.99329	ng
20) C18(195)	29.04	222037m	1.25968	ng
21) C19(206)	30.31	299182m	2.56982	ng
22) C110(209)	30.91	139463m	0.69861	ng
25) C12(8) #2	13.11	2551710m	21.71961	ng
26) C13(18) #2	14.99	2592374m	17.27903	ng
28) C13(28) #2	17.76	14625226m	63.74669	ng
29) C14(52) #2	19.15	7514495m	54.68056	ng
30) C14(44) #2	19.96	7765217m	31.43454	ng
31) C14(66) #2	22.36	17168109m	66.19548	ng
32) C15(101) #2	23.23	9077818m	61.27635	ng
35) C15(118) #2	26.34	30975032m	156.12297	ng
36) C16(153) #2	26.94	26710071m	125.21463	ng
37) C15(105) #2	27.20	11808708m	38.88876	ng
38) C16(138) #2	27.78	24362958m	115.86611	ng
39) C17(187) #2	28.14	4583918m	18.84612	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7515.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0423\M7515.D\ECD2B.CH
 Acq On : 07 Nov 2014 11:09 pm Operator: RR
 Sample : M8174-P(2) Inst : INST. M
 Misc : NBH14-0097 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:12 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	9313609m	28.68322	ng
41)	Cl7(180) #2	29.59	6078670m	20.56955	ng
42)	Cl7(170) #2	30.22	4451216m	13.50182	ng
43)	Cl8(195) #2	31.09	781097m	1.53684	ng
44)	Cl9(206) #2	32.18	915534m	2.56463	ng
45)	Cl10(209) #2	32.63	403237m	0.62377	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7516.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0423\M7516.D\ECD2B.CH
 Acq On : 07 Nov 2014 11:54 pm Operator: RR
 Sample : M8374-P(2) Inst : INST. M
 Misc : NBH14-0269 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:16 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3801859m	95.00000	ng
10) I C16(161)	23.22	7960388m	95.00000	ng
24) I C15(96) #2	20.52	16569354m	95.00000	ng
33) I C16(161) #2	26.79	41560755m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9663130	354.62265	ng
Spiked Amount	379.8670	Recovery	=	93.35%
11) s C16(152)	20.48	12661499m	316.90124	ng
Spiked Amount	381.3865	Recovery	=	83.09%
27) s C13(34) #2	16.48	48756747m	373.17908	ng
Spiked Amount	379.8670	Recovery	=	98.24%
34) s C16(152) #2	23.63	63526991m	275.11204	ng
Spiked Amount	381.3865	Recovery	=	72.13%
Target Compounds				
2) C12(8)	10.21	180911	3.92494	ng
3) C13(18)	12.13	170777m	1.24682	ng
5) C13(28)	14.20	1035257m	17.51159	ng
6) C14(52)	15.84	586856m	9.94224	ng
7) C14(44)	16.70	338879m	3.46523	ng
8) C14(66)	18.61	917879m	12.90107	ng
9) C15(101)	19.72	1036673	15.80031	ng
12) C15(118)	22.40	1949849m	31.04299	ng
13) C16(153)	23.43	1548848m	26.08351	ng
14) C15(105)	23.46	721052m	7.55989	ng
15) C16(138)	24.54	1837461m	23.47563	ng
16) C17(187)	25.29	254705m	1.71858	ng
17) C16(128)	25.63	506835m	6.34770	ng
18) C17(180)	27.16	324007m	2.46644	ng
19) C17(170)	27.96	279033m	1.66081	ng
20) C18(195)	29.04	53091m	BelowCal	ng
21) C19(206)	30.30	81913m	BelowCal	ng
22) C110(209)	30.90	24523m	BelowCal	ng
25) C12(8) #2	13.11	824358m	4.81270	ng
26) C13(18) #2	14.99	817538m	1.52616	ng
28) C13(28) #2	17.76	4640972m	17.22968	ng
29) C14(52) #2	19.15	2750870m	16.74367	ng
30) C14(44) #2	19.96	1681081m	4.97188	ng
31) C14(66) #2	22.36	4428193m	14.22656	ng
32) C15(101) #2	23.23	2950971m	16.39377	ng
35) C15(118) #2	26.34	9420300m	33.23034	ng
36) C16(153) #2	26.94	6932229m	22.09519	ng
37) C15(105) #2	27.21	3548823m	7.59781	ng
38) C16(138) #2	27.78	6506181m	24.22990	ng
39) C17(187) #2	28.14	1357881m	2.22271	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7516.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0423\M7516.D\ECD2B.CH
 Acq On : 07 Nov 2014 11:54 pm Operator: RR
 Sample : M8374-P(2) Inst : INST. M
 Misc : NBH14-0269 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:16 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2659850m	4.72786	ng
41)	Cl7(180) #2	29.59	1710131m	3.02709	ng
42)	Cl7(170) #2	30.22	1190379m	1.60440	ng
43)	Cl8(195) #2	31.09	237296m	BelowCal	ng
44)	Cl9(206) #2	32.18	131860m	BelowCal	ng
45)	Cl10(209) #2	32.63	152424m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7517.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0423\M7517.D\ECD2B.CH
 Acq On : 08 Nov 2014 12:38 am Operator: RR
 Sample : M8375-P(2) Inst : INST. M
 Misc : NBH14-0273 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:20 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3819746	95.00000	ng
10) I C16(161)	23.22	7523269m	95.00000	ng
24) I C15(96) #2	20.52	14682150m	95.00000	ng
33) I C16(161) #2	26.79	31868339m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9551737m	345.25495	ng
Spiked Amount	379.8670	Recovery	=	90.89%
11) s C16(152)	20.49	11859623m	313.48427	ng
Spiked Amount	381.3865	Recovery	=	82.20%
27) s C13(34) #2	16.48	44593147m	391.95621	ng
Spiked Amount	379.8670	Recovery	=	103.18%
34) s C16(152) #2	23.63	53145942m	296.86696	ng
Spiked Amount	381.3865	Recovery	=	77.84%
Target Compounds				
2) C12(8)	10.21	506943	18.15259	ng
3) C13(18)	12.13	533855m	14.08946	ng
5) C13(28)	14.20	3056391m	57.89809	ng
6) C14(52)	15.84	1565084	37.18827	ng
7) C14(44)	16.70	839245m	13.08982	ng
8) C14(66)	18.61	2506498m	40.46052	ng
9) C15(101)	19.72	2242932	36.43182	ng
12) C15(118)	22.40	4997487m	92.49337	ng
13) C16(153)	23.44 TW	4127427m	77.22730	ng
14) C15(105)	23.45 TW	2085162m	28.55557	ng
15) C16(138)	24.54	4791746m	70.19727	ng
16) C17(187)	25.30	646496m	8.58913	ng
17) C16(128)	25.64	1396324m	19.87866	ng
18) C17(180)	27.17	819186m	9.79983	ng
19) C17(170)	27.96	748677m	7.74694	ng
20) C18(195)	29.04	148285m	0.44421	ng
21) C19(206)	30.31	195106m	1.37145	ng
22) C110(209)	30.91	101397m	0.19013	ng
25) C12(8) #2	13.11	2211972m	19.94945	ng
26) C13(18) #2	14.99	2397205m	17.05822	ng
28) C13(28) #2	17.77	12643388m	58.66238	ng
29) C14(52) #2	19.15	6396056m	49.38553	ng
30) C14(44) #2	19.96	4052079m	16.61473	ng
31) C14(66) #2	22.36	11140835m	44.81293	ng
32) C15(101) #2	23.23	5811492m	41.15177	ng
35) C15(118) #2	26.34	21594476m	107.47120	ng
36) C16(153) #2	26.94	16494155m	76.48957	ng
37) C15(105) #2	27.21	8236153m	26.75641	ng
38) C16(138) #2	27.78	15868513m	77.00481	ng
39) C17(187) #2	28.14	4631612m	19.15048	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7517.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0423\M7517.D\ECD2B.CH
 Acq On : 08 Nov 2014 12:38 am Operator: RR
 Sample : M8375-P(2) Inst : INST. M
 Misc : NBH14-0273 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:20 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	6487423m	19.48951	ng
41)	Cl7(180) #2	29.59	3707656m	11.91627	ng
42)	Cl7(170) #2	30.22	3018578m	8.73101	ng
43)	Cl8(195) #2	31.09	496520m	0.49573	ng
44)	Cl9(206) #2	32.18	613396m	1.34736	ng
45)	Cl10(209) #2	32.63	318714m	0.18781	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7519.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0423\M7519.D\ECD2B.CH
 Acq On : 11-8-2014 02:08:14 AM Operator: RR
 Sample : M8376-P(2) Inst : INST. M
 Misc : NBH14-0277 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:24 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3645097m	95.00000	ng
10) I C16(161)	23.22	7762451m	95.00000	ng
24) I C15(96) #2	20.52	15040396m	95.00000	ng
33) I C16(161) #2	26.79	34424303m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9594134	376.43277	ng
Spiked Amount	379.8670	Recovery	=	99.10%
11) s C16(152)	20.49	11533003	291.96144	ng
Spiked Amount	381.3865	Recovery	=	76.55%
27) s C13(34) #2	16.48	46861171m	408.31806	ng
Spiked Amount	379.8670	Recovery	=	107.49%
34) s C16(152) #2	23.63	54975292m	285.87284	ng
Spiked Amount	381.3865	Recovery	=	74.96%
Target Compounds				
2) C12(8)	10.21	690228	27.85114	ng
3) C13(18)	12.13	660465	19.80863	ng
5) C13(28)	14.21	3817488m	77.80857	ng
6) C14(52)	15.84	2332040m	62.91791	ng
7) C14(44)	16.70	1642477m	30.48488	ng
8) C14(66)	18.61	3612829m	63.65957	ng
9) C15(101)	19.72	3596245	63.45037	ng
12) C15(118)	22.40	8293908m	156.61164	ng
13) C16(153)	23.44	6567351m	122.26420	ng
14) C15(105)	23.46	3145236m	43.41283	ng
15) C16(138)	24.54	8054374m	118.09705	ng
16) C17(187)	25.30	1059746	15.06734	ng
17) C16(128)	25.63	2280478m	32.04813	ng
18) C17(180)	27.16	1353423m	16.86569	ng
19) C17(170)	27.97	1200549m	12.96751	ng
20) C18(195)	29.04	217709m	1.28045	ng
21) C19(206)	30.30	292973m	2.59370	ng
22) C110(209)	30.90	127381m	0.56207	ng
25) C12(8) #2	13.11	3095268m	28.39251	ng
26) C13(18) #2	14.99	3158667m	23.54943	ng
28) C13(28) #2	17.76	18969308m	88.67509	ng
29) C14(52) #2	19.15	11044692m	87.96283	ng
30) C14(44) #2	19.96	7742846m	32.87666	ng
31) C14(66) #2	22.36	17292938m	69.97026	ng
32) C15(101) #2	23.23	10723458m	76.02758	ng
35) C15(118) #2	26.34	36839467m	173.31546	ng
36) C16(153) #2	26.94	26640012m	115.86726	ng
37) C15(105) #2	27.21	14108949m	43.32393	ng
38) C16(138) #2	27.78	27389621m	120.77040	ng
39) C17(187) #2	28.14	5013034m	19.19372	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7519.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0423\M7519.D\ECD2B.CH
 Acq On : 11-8-2014 02:08:14 AM Operator: RR
 Sample : M8376-P(2) Inst : INST. M
 Misc : NBH14-0277 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:24 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:20 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	10778899m	30.97974	ng
41)	Cl7(180) #2	29.59	6493734m	20.40663	ng
42)	Cl7(170) #2	30.22	5237395m	14.89333	ng
43)	Cl8(195) #2	31.09	908902m	1.77047	ng
44)	Cl9(206) #2	32.18	913650m	2.29457	ng
45)	Cl10(209) #2	32.63	577607m	1.32195	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7520.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0423\M7520.D\ECD2B.CH
 Acq On : 11-8-2014 02:53:00 AM Operator: RR
 Sample : M8377-P(2) Inst : INST. M
 Misc : NBH14-0281 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:24 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3533034m	95.00000	ng
10) I C16(161)	23.22	8356117	95.00000	ng
24) I C15(96) #2	20.52	15222855m	95.00000	ng
33) I C16(161) #2	26.79	29078770m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9555436m	395.36729	ng
Spiked Amount	379.8670	Recovery	=	104.08%
11) s C16(152)	20.49	11401845	264.02339	ng
Spiked Amount	381.3865	Recovery	=	69.23%
27) s C13(34) #2	16.48	40791638m	325.42329	ng
Spiked Amount	379.8670	Recovery	=	85.67%
34) s C16(152) #2	23.63	48553758m	297.18565	ng
Spiked Amount	381.3865	Recovery	=	77.92%
Target Compounds				
2) C12(8)	10.21	1030878m	45.90290	ng
3) C13(18)	12.13	1449866m	52.78049	ng
5) C13(28)	14.20	e 9652450m	239.26795	ng
6) C14(52)	15.84	3861734m	117.63187	ng
7) C14(44)	16.72	1976119m	38.85316	ng
8) C14(66)	18.61	6302775m	122.61211	ng
9) C15(101)	19.72	5620383	106.28621	ng
12) C15(118)	22.40	e 13065060m	243.81245	ng
13) C16(153)	23.44	10896707m	196.01359	ng
14) C15(105)	23.46	5677364m	76.63283	ng
15) C16(138)	24.54	12851359m	180.77317	ng
16) C17(187)	25.30	1526064	21.00056	ng
17) C16(128)	25.63	3575480	47.35751	ng
18) C17(180)	27.17	2207784m	26.60350	ng
19) C17(170)	27.97	1878603m	19.62791	ng
20) C18(195)	29.04	341706m	2.56975	ng
21) C19(206)	30.31	427344m	3.98140	ng
22) C110(209)	30.91	152465m	0.79503	ng
25) C12(8) #2	13.11	4499664m	42.41833	ng
26) C13(18) #2	14.99	5139852m	41.65395	ng
28) C13(28) #2	17.76	20925136m	97.42610	ng
29) C14(52) #2	19.15	15743540m	129.84994	ng
30) C14(44) #2	19.96	8672014m	36.66933	ng
31) C14(66) #2	22.36	29147823m	121.62139	ng
32) C15(101) #2	23.23	16477242m	115.05594	ng
35) C15(118) #2	26.34	e 53350709m	305.06332	ng
36) C16(153) #2	26.94	38658896m	200.19985	ng
37) C15(105) #2	27.21	21676948m	79.42655	ng
38) C16(138) #2	27.78	38711127	195.05541	ng
39) C17(187) #2	28.14	7422323m	35.52255	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7520.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0423\M7520.D\ECD2B.CH
 Acq On : 11-8-2014 02:53:00 AM Operator: RR
 Sample : M8377-P(2) Inst : INST. M
 Misc : NBH14-0281 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:24 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	15008810m	52.05705	ng
41)	Cl7(180) #2	29.59	9093554m	34.85406	ng
42)	Cl7(170) #2	30.22	7301835m	25.44783	ng
43)	Cl8(195) #2	31.09	1155408m	3.33876	ng
44)	Cl9(206) #2	32.18	1145731m	3.96313	ng
45)	Cl10(209) #2	32.63	479426m	1.27312	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7521.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0423\M7521.D\ECD2B.CH
 Acq On : 11-8-2014 03:37:35 AM Operator: RR
 Sample : M8378-P(2) Inst : INST. M
 Misc : NBH14-0285 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3792004	95.00000	ng
10) I C16(161)	23.21	7181827m	95.00000	ng
24) I C15(96) #2	20.52	14022060m	95.00000	ng
33) I C16(161) #2	26.80	27068352	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	10097141	384.26728	ng
Spiked Amount	379.8670	Recovery	=	101.16%
11) s C16(152)	20.49	11495113	319.32630	ng
Spiked Amount	381.3865	Recovery	=	83.73%
27) s C13(34) #2	16.48	45425125m	435.92121	ng
Spiked Amount	379.8670	Recovery	=	114.76%
34) s C16(152) #2	23.63	50444169	326.75240	ng
Spiked Amount	381.3865	Recovery	=	85.67%
Target Compounds				
2) C12(8)	10.21	2312658	107.08302	ng
3) C13(18)	12.13	3130550	119.82955	ng
5) C13(28)	14.20	e 12125483m	297.15881	ng
6) C14(52)	15.84	e 11159528	535.10118	ng
7) C14(44)	16.71	7996412	174.45133	ng
8) C14(66)	18.62	e 11198209m	224.15220	ng
9) C15(101)	19.72	e 13991989	281.31068	ng
12) C15(118)	22.40	E 35288085	BelowCal	ng
13) C16(153)	23.43	e 12260162m	266.32373	ng
14) C15(105)	23.46	10162124m	178.21156	ng
15) C16(138)	24.54	E 29751497	590.96187	ng
16) C17(187)	25.30	2692754m	46.05682	ng
17) C16(128)	25.64	7046272	113.41881	ng
18) C17(180)	27.17	4863354m	71.96619	ng
19) C17(170)	27.97	4344877	56.09428	ng
20) C18(195)	29.04	651146m	7.57158	ng
21) C19(206)	30.31	896835m	11.63382	ng
22) C110(209)	30.91	230099m	2.54625	ng
25) C12(8) #2	13.11	10086825m	114.13246	ng
26) C13(18) #2	15.00	14083707m	147.68233	ng
28) C13(28) #2	17.76	e 60566285	391.43201	ng
29) C14(52) #2	19.15	e 52567558	BelowCal	ng
30) C14(44) #2	19.96	36710726	198.48789	ng
31) C14(66) #2	22.36	34650096m	161.53407	ng
32) C15(101) #2	23.23	e 56459752m	382.53338	ng
35) C15(118) #2	26.34	e 104622374	681.41175	ng
36) C16(153) #2	26.94	e 72679864	400.42938	ng
37) C15(105) #2	27.21	45620146	176.40661	ng
38) C16(138) #2	27.78	e 80941106	398.15829	ng
39) C17(187) #2	28.14	13043093m	68.84804	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7521.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0423\M7521.D\ECD2B.CH
 Acq On : 11-8-2014 03:37:35 AM Operator: RR
 Sample : M8378-P(2) Inst : INST. M
 Misc : NBH14-0285 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:28 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.55	30647611	114.38899	ng
41)	Cl7(180) #2	29.59	20594575m	85.78494	ng
42)	Cl7(170) #2	30.22	14645647m	55.90868	ng
43)	Cl8(195) #2	31.09	2321546m	8.73822	ng
44)	Cl9(206) #2	32.19	2644649	11.50049	ng
45)	Cl10(209) #2	32.63	1295238m	6.51157	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7522.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0423\M7522.D\ECD2B.CH
 Acq On : 11-8-2014 04:22:30 AM Operator: RR
 Sample : M8379-P(2) Inst : INST. M
 Misc : NBH14-0289 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3608786	95.00000	ng
10) I C16(161)	23.22	8322299m	95.00000	ng
24) I C15(96) #2	20.52	14026166m	95.00000	ng
33) I C16(161) #2	26.79	30923957m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9673147	388.89997	ng
Spiked Amount	379.8670	Recovery	=	102.38%
11) s C16(152)	20.49	11211201	260.09742	ng
Spiked Amount	381.3865	Recovery	=	68.20%
27) s C13(34) #2	16.48	44794468m	425.40937	ng
Spiked Amount	379.8670	Recovery	=	111.99%
34) s C16(152) #2	23.63	52512390	301.56647	ng
Spiked Amount	381.3865	Recovery	=	79.07%
Target Compounds				
2) C12(8)	10.21	1421116	64.60752	ng
3) C13(18)	12.13	1443656	51.24082	ng
5) C13(28)	14.20	8698110m	203.75384	ng
6) C14(52)	15.84	5139352	161.91613	ng
7) C14(44)	16.71	3564508	73.04388	ng
8) C14(66)	18.61	6201820m	117.50079	ng
9) C15(101)	19.73	7664360	146.35682	ng
12) C15(118)	22.40	e 17564826m	356.62450	ng
13) C16(153)	23.44	e 13144154m	243.41699	ng
14) C15(105)	23.46	7171147m	99.90823	ng
15) C16(138)	24.54	e 16970728m	247.27611	ng
16) C17(187)	25.30	1799065	25.33511	ng
17) C16(128)	25.63	4646188	62.49219	ng
18) C17(180)	27.16	2970284m	36.69774	ng
19) C17(170)	27.97	2503379m	26.86571	ng
20) C18(195)	29.04	404809m	3.34773	ng
21) C19(206)	30.31	450385m	4.28977	ng
22) C110(209)	30.91	158286m	0.89320	ng
25) C12(8) #2	13.11	6174219m	65.79162	ng
26) C13(18) #2	15.00	6694083m	62.14693	ng
28) C13(28) #2	17.77	39108345m	218.28873	ng
29) C14(52) #2	19.15	23365925m	233.33535	ng
30) C14(44) #2	19.96	16028095m	77.66739	ng
31) C14(66) #2	22.36	23850609m	106.80111	ng
32) C15(101) #2	23.23	21969188m	163.89800	ng
35) C15(118) #2	26.34	e 70264698m	382.70088	ng
36) C16(153) #2	26.94	47905292m	233.16913	ng
37) C15(105) #2	27.21	30838867m	105.98066	ng
38) C16(138) #2	27.78	55974754	257.38636	ng
39) C17(187) #2	28.14	10313899m	47.09829	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7522.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0423\M7522.D\ECD2B.CH
 Acq On : 11-8-2014 04:22:30 AM Operator: RR
 Sample : M8379-P(2) Inst : INST. M
 Misc : NBH14-0289 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	20657410m	67.64404	ng
41)	Cl7(180) #2	29.59	13043993m	47.42845	ng
42)	Cl7(170) #2	30.22	10346381m	34.28638	ng
43)	Cl8(195) #2	31.09	1492711m	4.34195	ng
44)	Cl9(206) #2	32.18	1368901m	4.59387	ng
45)	Cl10(209) #2	32.63	498985m	1.21436	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7523.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0423\M7523.D\ECD2B.CH
 Acq On : 11-8-2014 05:07:03 AM Operator: RR
 Sample : M8389-P(2) Inst : INST. M
 Misc : NBH14-0109 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3490502m	95.00000	ng
10) I C16(161)	23.22	7055913m	95.00000	ng
24) I C15(96) #2	20.52	14601470m	95.00000	ng
33) I C16(161) #2	26.79	33117738m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9281459m	383.31364	ng
Spiked Amount	379.8670	Recovery	=	100.91%
11) s C16(152)	20.49	11490547m	326.12151	ng
Spiked Amount	381.3865	Recovery	=	85.51%
27) s C13(34) #2	16.48	44205207m	389.96837	ng
Spiked Amount	379.8670	Recovery	=	102.66%
34) s C16(152) #2	23.63	53618929m	289.31494	ng
Spiked Amount	381.3865	Recovery	=	75.86%
Target Compounds				
2) C12(8)	10.21	364584	13.38344	ng
3) C13(18)	12.13	333428	8.05705	ng
5) C13(28)	14.20	1937020m	38.79722	ng
6) C14(52)	15.84	980090m	23.26933	ng
7) C14(44)	16.70	622631m	10.02709	ng
8) C14(66)	18.61	1662215m	28.35154	ng
9) C15(101)	19.72	1718325	30.14878	ng
12) C15(118)	22.40	3676685m	70.98798	ng
13) C16(153)	23.44 TW	2640449m	51.72115	ng
14) C15(105)	23.45 TW	1418601m	19.90061	ng
15) C16(138)	24.54	3679610m	56.73910	ng
16) C17(187)	25.30	515764m	6.95066	ng
17) C16(128)	25.63	1041978m	15.64925	ng
18) C17(180)	27.16	597976m	7.20068	ng
19) C17(170)	27.97	521051m	5.32133	ng
20) C18(195)	29.04	92985m	BelowCal	ng
21) C19(206)	30.31	113004m	0.34543	ng
22) C110(209)	30.90	63478m	BelowCal	ng
25) C12(8) #2	13.11	1571523m	13.44623	ng
26) C13(18) #2	14.99	1392716m	7.75440	ng
28) C13(28) #2	17.76	8411759m	38.03930	ng
29) C14(52) #2	19.15	4390048m	32.81001	ng
30) C14(44) #2	19.96	3005784m	11.91247	ng
31) C14(66) #2	22.36	7809900m	30.74148	ng
32) C15(101) #2	23.23	4249849m	29.32611	ng
35) C15(118) #2	26.34	16720606m	78.86157	ng
36) C16(153) #2	26.94	12482563m	54.74845	ng
37) C15(105) #2	27.20	6625672m	20.32033	ng
38) C16(138) #2	27.78	12273844m	57.66696	ng
39) C17(187) #2	28.14	4754878m	18.88706	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7523.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0423\M7523.D\ECD2B.CH
 Acq On : 11-8-2014 05:07:03 AM Operator: RR
 Sample : M8389-P(2) Inst : INST. M
 Misc : NBH14-0109 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	5259724m	14.77159	ng
41)	Cl7(180) #2	29.59	2844577m	8.32385	ng
42)	Cl7(170) #2	30.22	2208721m	5.71290	ng
43)	Cl8(195) #2	31.09	369391m	BelowCal	ng
44)	Cl9(206) #2	32.18	385575m	0.35883	ng
45)	Cl10(209) #2	32.63	259502m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7524.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0423\M7524.D\ECD2B.CH
 Acq On : 11-8-2014 05:51:48 AM Operator: RR
 Sample : M8390-P(2) Inst : INST. M
 Misc : NBH14-0113 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3688374m	95.00000	ng
10) I C16(161)	23.22	7754964	95.00000	ng
24) I C15(96) #2	20.52	15499309m	95.00000	ng
33) I C16(161) #2	26.79	36608343m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9388986	355.52328	ng
Spiked Amount	379.8670	Recovery	=	93.59%
11) s C16(152)	20.48	13192887m	344.10401	ng
Spiked Amount	381.3865	Recovery	=	90.22%
27) s C13(34) #2	16.48	44054021m	354.27676	ng
Spiked Amount	379.8670	Recovery	=	93.26%
34) s C16(152) #2	23.63	60671282m	295.26204	ng
Spiked Amount	381.3865	Recovery	=	77.42%
Target Compounds				
2) C12(8)	10.21	106459m	0.84941	ng
3) C13(18)	12.13	80061m	BelowCal	ng
5) C13(28)	14.20	489499m	7.26442	ng
6) C14(52)	15.84	425507m	5.89209	ng
7) C14(44)	16.70	228678m	1.48358	ng
8) C14(66)	18.61	666866m	8.97174	ng
9) C15(101)	19.72	608540m	8.85812	ng
12) C15(118)	22.39	1047722m	15.66337	ng
13) C16(153)	23.43	684326m	11.19515	ng
14) C15(105)	23.45	403960m	3.31932	ng
15) C16(138)	24.53	1023652m	12.36112	ng
16) C17(187)	25.29	162936m	0.32369	ng
17) C16(128)	25.62	255573m	2.96935	ng
18) C17(180)	27.16	172498m	0.48561	ng
19) C17(170)	27.96	142933m	0.09434	ng
20) C18(195)	29.04	27415m	BelowCal	ng
21) C19(206)	30.30	46765m	BelowCal	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	385814m	1.14300	ng
26) C13(18) #2	15.00	417865m	BelowCal	ng
28) C13(28) #2	17.77	2444052m	8.79246	ng
29) C14(52) #2	19.15	1734939m	10.41243	ng
30) C14(44) #2	19.96	993669m	2.50583	ng
31) C14(66) #2	22.36	2183130m	6.53567	ng
32) C15(101) #2	23.23	1854570m	9.62597	ng
35) C15(118) #2	26.33	4505040m	16.37700	ng
36) C16(153) #2	26.94	4336883m	14.55425	ng
37) C15(105) #2	27.20	1641010m	3.07185	ng
38) C16(138) #2	27.78	3329568m	13.73519	ng
39) C17(187) #2	28.14	752838m	0.39458	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7524.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0423\M7524.D\ECD2B.CH
 Acq On : 11-8-2014 05:51:48 AM Operator: RR
 Sample : M8390-P(2) Inst : INST. M
 Misc : NBH14-0113 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:53:45 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	1400616m	1.99023	ng
41)	Cl7(180) #2	29.59	725989m	0.49620	ng
42)	Cl7(170) #2	30.22	535402m	0.08776	ng
43)	Cl8(195) #2	31.09	102276m	BelowCal	ng
44)	Cl9(206) #2	32.18	44178m	BelowCal	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7525.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0423\M7525.D\ECD2B.CH
 Acq On : 11-8-2014 06:36:25 AM Operator: RR
 Sample : M8390MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0113 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:31:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:31:29 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3626221m	100.00000	ng
10) I C16(161)	23.22	7432844	100.00000	ng
24) I C15(96) #2	20.51	15829971m	100.00000	ng
33) I C16(161) #2	26.79	38617300m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9386834	384.97178	ng
Spiked Amount	400.0000	Recovery	=	96.24%
11) s C16(152)	20.48	12643077m	362.15054	ng
Spiked Amount	401.6000	Recovery	=	90.18%
27) s C13(34) #2	16.48	46473396m	391.43843	ng
Spiked Amount	400.0000	Recovery	=	97.86%
34) s C16(152) #2	23.62	83898772	391.86042	ng
Spiked Amount	401.6000	Recovery	=	97.57%
Target Compounds				
2) C12(8)	10.21	1098557	50.43507	ng
3) C13(18)	12.13	1359816	50.03354	ng
5) C13(28)	14.21	2871102	60.24614	ng
6) C14(52)	15.84	1977825	54.96637	ng
7) C14(44)	16.70	2523900m	52.15157	ng
8) C14(66)	18.60	3072609	56.40882	ng
9) C15(101)	19.74	3341467m	62.08291	ng
12) C15(118)	22.39	3141468m	59.50352	ng
13) C16(153)	23.44 TW	3205504m	63.15226	ng
14) C15(105)	23.45 TW	3528457m	54.36558	ng
15) C16(138)	24.54	4010781m	61.93778	ng
16) C17(187)	25.29	3168632	55.61629	ng
17) C16(128)	25.64	3488399m	54.88376	ng
18) C17(180)	27.16	3728580m	55.32551	ng
19) C17(170)	27.96	4056420m	53.02050	ng
20) C18(195)	29.04	3935268m	54.87355	ng
21) C19(206)	30.31	3655649m	52.76859	ng
22) C110(209)	30.90	3121942m	55.43428	ng
25) C12(8) #2	13.11	5565959m	54.05653	ng
26) C13(18) #2	14.99	6174381m	51.85005	ng
28) C13(28) #2	17.76	12299073m	55.27231	ng
29) C14(52) #2	19.14	7808041m	59.59309	ng
30) C14(44) #2	19.96	14047389m	62.18377	ng
31) C14(66) #2	22.36	16179482m	64.91409	ng
32) C15(101) #2	23.25	6868760m	47.80236	ng
35) C15(118) #2	26.35	15841262m	66.60274	ng
36) C16(153) #2	26.94	16218188m	64.64599	ng
37) C15(105) #2	27.20	20971328m	60.79288	ng
38) C16(138) #2	27.78	14520878m	61.57505	ng
39) C17(187) #2	28.14	15767779	61.15144	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7525.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0423\M7525.D\ECD2B.CH
 Acq On : 11-8-2014 06:36:25 AM Operator: RR
 Sample : M8390MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0113 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:31:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:31:29 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	22373113m	61.64552	ng
41)	Cl7(180) #2	29.59	20654361m	63.51221	ng
42)	Cl7(170) #2	30.22	22127944m	62.34067	ng
43)	Cl8(195) #2	31.09	21744634m	66.67334	ng
44)	Cl9(206) #2	32.18	20337582m	69.11023	ng
45)	Cl10(209) #2	32.62	16726362m	73.29123	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7526.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0423\M7526.D\ECD2B.CH
 Acq On : 11-8-2014 07:21:09 AM Operator: RR
 Sample : M8390MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0113 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:31:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:31:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3781855m	100.00000	ng
10) I C16(161)	23.21	7722627m	100.00000	ng
24) I C15(96) #2	20.52	17075691m	100.00000	ng
33) I C16(161) #2	26.79	40154673m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9562055	370.06198	ng
Spiked Amount	400.0000	Recovery	=	92.52%
11) s C16(152)	20.48	13595955m	377.98832	ng
Spiked Amount	401.6000	Recovery	=	94.12%
27) s C13(34) #2	16.48	48599082m	373.65465	ng
Spiked Amount	400.0000	Recovery	=	93.41%
34) s C16(152) #2	23.62	87507244m	392.87544	ng
Spiked Amount	401.6000	Recovery	=	97.83%
Target Compounds				
2) C12(8)	10.21	1135668	49.93120	ng
3) C13(18)	12.13	1393934	49.03939	ng
5) C13(28)	14.21	2892576m	58.01036	ng
6) C14(52)	15.84	2061563	54.93049	ng
7) C14(44)	16.70	2703352	53.71624	ng
8) C14(66)	18.60	3169571	55.73445	ng
9) C15(101)	19.74	3293331m	58.44140	ng
12) C15(118)	22.39	3320300m	60.62283	ng
13) C16(153)	23.44 TW	3122754m	59.03713	ng
14) C15(105)	23.45 TW	3856603m	57.47327	ng
15) C16(138)	24.54	4310415m	64.20807	ng
16) C17(187)	25.29	3441711	58.31677	ng
17) C16(128)	25.63	3833829m	58.19266	ng
18) C17(180)	27.16	3961543m	56.63961	ng
19) C17(170)	27.96	4278086m	53.85618	ng
20) C18(195)	29.04	4176512m	56.10107	ng
21) C19(206)	30.31	3833374m	53.27664	ng
22) C110(209)	30.90	3278029m	56.04994	ng
25) C12(8) #2	13.10	5863021m	52.66103	ng
26) C13(18) #2	15.00	6556348m	50.91496	ng
28) C13(28) #2	17.76	14251544m	59.70259	ng
29) C14(52) #2	19.14	8829472m	62.77047	ng
30) C14(44) #2	19.96	15867236m	65.35135	ng
31) C14(66) #2	22.36	17250936m	64.10991	ng
32) C15(101) #2	23.24	9623376m	62.91133	ng
35) C15(118) #2	26.35	16679833m	67.49850	ng
36) C16(153) #2	26.94	18115332	69.71873	ng
37) C15(105) #2	27.20	21531386m	60.01589	ng
38) C16(138) #2	27.78	16375542m	66.69193	ng
39) C17(187) #2	28.14	16180526m	60.32501	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7526.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0423\M7526.D\ECD2B.CH
 Acq On : 11-8-2014 07:21:09 AM Operator: RR
 Sample : M8390MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0113 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:31:13 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:31:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	23037786m	61.03682	ng
41)	Cl7(180) #2	29.59	20516305m	60.64821	ng
42)	Cl7(170) #2	30.22	21887344m	59.29019	ng
43)	Cl8(195) #2	31.09	20671434m	60.97482	ng
44)	Cl9(206) #2	32.18	18333427m	59.95585	ng
45)	Cl10(209) #2	32.62	14951032m	62.96253	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7527.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0423\M7527.D\ECD2B.CH
 Acq On : 11-8-2014 08:05:46 AM Operator: RR
 Sample : M8391-P(2) Inst : INST. M
 Misc : NBH14-0117 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:29 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3497694m	95.00000	ng
10) I C16(161)	23.22	7207309m	95.00000	ng
24) I C15(96) #2	20.51	15935191m	95.00000	ng
33) I C16(161) #2	26.79	37575236m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8977421	360.47806	ng
Spiked Amount	379.8670	Recovery	=	94.90%
11) s C16(152)	20.48	12233397m	343.13935	ng
Spiked Amount	381.3865	Recovery	=	89.97%
27) s C13(34) #2	16.47	45434020m	355.90867	ng
Spiked Amount	379.8670	Recovery	=	93.69%
34) s C16(152) #2	23.62	61252362m	291.04131	ng
Spiked Amount	381.3865	Recovery	=	76.31%
Target Compounds				
2) C12(8)	10.20	112985m	1.41303	ng
3) C13(18)	12.13	132727m	0.31586	ng
5) C13(28)	14.20	612138m	10.35181	ng
6) C14(52)	15.83	588070m	11.37913	ng
7) C14(44)	16.70	330249m	3.85185	ng
8) C14(66)	18.60	654537m	9.38099	ng
9) C15(101)	19.72	828316	13.48199	ng
12) C15(118)	22.39	1193667m	19.90868	ng
13) C16(153)	23.43	980535m	17.86347	ng
14) C15(105)	23.45	481638m	4.93932	ng
15) C16(138)	24.53	1241843m	16.88231	ng
16) C17(187)	25.29	212054m	1.39156	ng
17) C16(128)	25.62	317891m	4.19451	ng
18) C17(180)	27.15	200728m	1.08711	ng
19) C17(170)	27.96	159893m	0.44799	ng
20) C18(195)	29.04	34757m	BelowCal	ng
21) C19(206)	30.30	49894m	BelowCal	ng
22) C110(209)	30.89	10463m	BelowCal	ng
25) C12(8) #2	13.10	466689m	1.79001	ng
26) C13(18) #2	14.99	648675m	0.36542	ng
28) C13(28) #2	17.76	3383948m	12.54894	ng
29) C14(52) #2	19.15	2792758m	17.83166	ng
30) C14(44) #2	19.96	1572705m	4.78911	ng
31) C14(66) #2	22.35	2785390m	8.59418	ng
32) C15(101) #2	23.22 T	2714850m	15.50168	ng
35) C15(118) #2	26.33	5899566m	21.89096	ng
36) C16(153) #2	26.94	5304089m	18.09629	ng
37) C15(105) #2	27.20	2159840m	4.48527	ng
38) C16(138) #2	27.78	4249797m	17.29264	ng
39) C17(187) #2	28.13	1324956m	2.61343	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7527.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0423\M7527.D\ECD2B.CH
 Acq On : 11-8-2014 08:05:46 AM Operator: RR
 Sample : M8391-P(2) Inst : INST. M
 Misc : NBH14-0117 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:29 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:53:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	1815380m	3.06011	ng
41)	Cl7(180) #2	29.58	1086387m	1.57499	ng
42)	Cl7(170) #2	30.22	708003m	0.54425	ng
43)	Cl8(195) #2	31.09	172696m	BelowCal	ng
44)	Cl9(206) #2	32.18	100982m	BelowCal	ng
45)	Cl10(209) #2	32.63	31575m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7528.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0423\M7528.D\ECD2B.CH
 Acq On : 11-8-2014 08:50:34 AM Operator: RR
 Sample : M8395-P(2) Inst : INST. M
 Misc : NBH14-0133 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:29 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3530570m	95.00000	ng
10) I C16(161)	23.22	6831259m	95.00000	ng
24) I C15(96) #2	20.52	12932455m	95.00000	ng
33) I C16(161) #2	26.79	25010599m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8563792	328.88280	ng
Spiked Amount	379.8670	Recovery	=	86.58%
11) s C16(152)	20.49	9785959	279.58470	ng
Spiked Amount	381.3865	Recovery	=	73.31%
27) s C13(34) #2	16.48	38775156m	384.10946	ng
Spiked Amount	379.8670	Recovery	=	101.12%
34) s C16(152) #2	23.63	43332871	306.86213	ng
Spiked Amount	381.3865	Recovery	=	80.46%
Target Compounds				
2) C12(8)	10.21	2665296	138.30309	ng
3) C13(18)	12.13	2995163	123.85984	ng
5) C13(28)	14.20	E 20963156m	BelowCal	ng
6) C14(52)	15.84	e 11438654	BelowCal	ng
7) C14(44)	16.71	7532155	176.93549	ng
8) C14(66)	18.62	e 14664576m	363.57292	ng
9) C15(101)	19.73	e 15995933	370.46120	ng
12) C15(118)	22.40	E 44077539	BelowCal	ng
13) C16(153)	23.45	E 43228318	BelowCal	ng
14) C15(105)	23.47	e 12919825m	259.40567	ng
15) C16(138)	24.55	E 38643360	1037.55738	ng
16) C17(187)	25.30	3310940	60.58544	ng
17) C16(128)	25.64	9236525	160.74830	ng
18) C17(180)	27.17	5972892m	93.99185	ng
19) C17(170)	27.97	5080260m	69.56040	ng
20) C18(195)	29.05	784407	10.00333	ng
21) C19(206)	30.31	1278479m	18.11835	ng
22) C110(209)	30.91	313179m	4.30113	ng
25) C12(8) #2	13.11	11047255m	139.33126	ng
26) C13(18) #2	14.99	13277434m	151.65076	ng
28) C13(28) #2	17.76	e 78674898	BelowCal	ng
29) C14(52) #2	19.15	e 53664139	BelowCal	ng
30) C14(44) #2	19.96	32931515m	191.95288	ng
31) C14(66) #2	22.36	e 76272322m	489.79445	ng
32) C15(101) #2	23.23	e 68666105m	482.35494	ng
35) C15(118) #2	26.34	E 138660249	1030.26415	ng
36) C16(153) #2	26.94	e 94933375	559.09690	ng
37) C15(105) #2	27.21	65089280	265.90807	ng
38) C16(138) #2	27.78	e 108905157	543.70126	ng
39) C17(187) #2	28.14	14622194m	83.77913	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7528.D\ECD1A.CH Vial: 23
 Signal #2 : I:\M\DATA\SM0423\M7528.D\ECD2B.CH
 Acq On : 11-8-2014 08:50:34 AM Operator: RR
 Sample : M8395-P(2) Inst : INST. M
 Misc : NBH14-0133 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:33 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:29 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	39987889m	160.09064	ng
41)	Cl7(180) #2	29.59	24874672m	111.62584	ng
42)	Cl7(170) #2	30.22	19538787m	80.63958	ng
43)	Cl8(195) #2	31.09	2909161m	12.30822	ng
44)	Cl9(206) #2	32.19	2272754m	10.61964	ng
45)	Cl10(209) #2	32.63	1158323m	6.25517	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7530.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0423\M7530.D\ECD2B.CH
 Acq On : 08 Nov 2014 10:20 am Operator: RR
 Sample : M8396-P(2) Inst : INST. M
 Misc : NBH14-0137 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:01:39 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:01:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2980050m	95.00000	ng
10) I C16(161)	23.22	6981212m	95.00000	ng
24) I C15(96) #2	20.52	12537385m	95.00000	ng
33) I C16(161) #2	26.79	28703854	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7665991m	361.84805	ng
Spiked Amount	379.8670	Recovery	=	95.26%
11) s C16(152)	20.49	8987262	246.71668	ng
Spiked Amount	381.3865	Recovery	=	64.69%
27) s C13(34) #2	16.48	37792846m	387.33758	ng
Spiked Amount	379.8670	Recovery	=	101.97%
34) s C16(152) #2	23.63	41909757m	264.23663	ng
Spiked Amount	381.3865	Recovery	=	69.28%
Target Compounds				
2) C12(8)	10.21	881781m	46.64230	ng
3) C13(18)	12.13	1076401m	45.50223	ng
5) C13(28)	14.20	7616592m	219.44835	ng
6) C14(52)	15.84	4999640m	199.14618	ng
7) C14(44)	16.71	3658290m	93.13408	ng
8) C14(66)	18.61	7298471m	177.70210	ng
9) C15(101)	19.72	8941219	218.10396	ng
12) C15(118)	22.40	e 18613503m	503.93203	ng
13) C16(153)	23.44	e 11217711m	248.28855	ng
14) C15(105)	23.46	7968060m	137.85824	ng
15) C16(138)	24.54	e 20262249	372.86148	ng
16) C17(187)	25.30	2048203	35.36964	ng
17) C16(128)	25.63	5044587	81.93295	ng
18) C17(180)	27.17	3251122m	48.60883	ng
19) C17(170)	27.97	2667554m	34.63769	ng
20) C18(195)	29.04	398620m	4.19719	ng
21) C19(206)	30.31	637383m	8.14580	ng
22) C110(209)	30.91	222247m	2.52034	ng
25) C12(8) #2	13.10	4668666m	54.70424	ng
26) C13(18) #2	14.99	5565691m	57.18550	ng
28) C13(28) #2	17.76	36742250m	231.99105	ng
29) C14(52) #2	19.15	23170251m	269.10925	ng
30) C14(44) #2	19.96	14247822m	77.20183	ng
31) C14(66) #2	22.36	35377032m	187.87650	ng
32) C15(101) #2	23.23	25944548m	212.28742	ng
35) C15(118) #2	26.34	e 89328902	536.84691	ng
36) C16(153) #2	26.94	e 66095200	344.70967	ng
37) C15(105) #2	27.21	37535008	138.12510	ng
38) C16(138) #2	27.78	e 65225536	314.49667	ng
39) C17(187) #2	28.14	8805485m	43.14948	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7530.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0423\M7530.D\ECD2B.CH
 Acq On : 08 Nov 2014 10:20 am Operator: RR
 Sample : M8396-P(2) Inst : INST. M
 Misc : NBH14-0137 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:01:39 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:01:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	23974402m	84.63643	ng
41)	Cl7(180) #2	29.59	15375815m	60.43018	ng
42)	Cl7(170) #2	30.22	12071050m	43.32940	ng
43)	Cl8(195) #2	31.08	2011141m	6.89932	ng
44)	Cl9(206) #2	32.18	1827124m	7.10403	ng
45)	Cl10(209) #2	32.62	945636m	4.02387	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7531.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0423\M7531.D\ECD2B.CH
 Acq On : 08 Nov 2014 11:05 am Operator: RR
 Sample : M8397-P(2) Inst : INST. M
 Misc : NBH14-0141 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3649612	95.00000	ng
10) I C16(161)	23.21	5855936m	95.00000	ng
24) I C15(96) #2	20.52	13606181m	95.00000	ng
33) I C16(161) #2	26.79	28428383	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9282629	355.03369	ng
Spiked Amount	379.8670	Recovery	=	93.46%
11) s C16(152)	20.49	10355079	361.07381	ng
Spiked Amount	381.3865	Recovery	=	94.67%
27) s C13(34) #2	16.48	43931074m	433.41896	ng
Spiked Amount	379.8670	Recovery	=	114.10%
34) s C16(152) #2	23.63	49182752	306.47550	ng
Spiked Amount	381.3865	Recovery	=	80.36%
Target Compounds				
2) C12(8)	10.21	3108584m	160.69532	ng
3) C13(18)	12.13	3642200	151.49922	ng
5) C13(28)	14.20	E 33617621	BelowCal	ng
6) C14(52)	15.84	e 11776208	BelowCal	ng
7) C14(44)	16.70	7034015	156.56998	ng
8) C14(66)	18.61	10457688m	215.71453	ng
9) C15(101)	19.72	e 13243203	275.39889	ng
12) C15(118)	22.40	E 34063122	BelowCal	ng
13) C16(153)	23.43	e 11890068m	327.35747	ng
14) C15(105)	23.46	8809965m	192.25445	ng
15) C16(138)	24.54	e 26011613	654.45917	ng
16) C17(187)	25.30	2286973m	48.11166	ng
17) C16(128)	25.63	6149178	122.01474	ng
18) C17(180)	27.17	3914099m	70.99143	ng
19) C17(170)	27.97	3315552m	52.34333	ng
20) C18(195)	29.04	483229	6.75221	ng
21) C19(206)	30.31	493181m	7.41094	ng
22) C110(209)	30.91	207402m	2.97550	ng
25) C12(8) #2	13.10	14449874m	181.16103	ng
26) C13(18) #2	14.99	16847732m	191.21669	ng
28) C13(28) #2	17.76	e 95903361	BelowCal	ng
29) C14(52) #2	19.15	e 58317495	BelowCal	ng
30) C14(44) #2	19.96	32233700m	176.12627	ng
31) C14(66) #2	22.36	43117873m	215.00418	ng
32) C15(101) #2	23.23	e 90199946	577.74222	ng
35) C15(118) #2	26.34	E 117703345	735.92210	ng
36) C16(153) #2	26.94	e 74749831	392.35758	ng
37) C15(105) #2	27.20	53760762m	196.89445	ng
38) C16(138) #2	27.78	e 77272581	367.10577	ng
39) C17(187) #2	28.14	10616184m	52.97421	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7531.D\ECD1A.CH Vial: 26
 Signal #2 : I:\M\DATA\SM0423\M7531.D\ECD2B.CH
 Acq On : 08 Nov 2014 11:05 am Operator: RR
 Sample : M8397-P(2) Inst : INST. M
 Misc : NBH14-0141 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	29414028	104.67454	ng
41)	Cl7(180) #2	29.59	17978944m	71.38272	ng
42)	Cl7(170) #2	30.22	14484727	52.62732	ng
43)	Cl8(195) #2	31.08	2133892m	7.48487	ng
44)	Cl9(206) #2	32.18	1829367m	7.19401	ng
45)	Cl10(209) #2	32.62	851203m	3.52233	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7532.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0423\M7532.D\ECD2B.CH
 Acq On : 08 Nov 2014 11:49 am Operator: RR
 Sample : M8398-P(2) Inst : INST. M
 Misc : NBH14-0145 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I C15(96)	17.39	3730211m	95.00000 ng
10) I C16(161)	23.21	6615296m	95.00000 ng
24) I C15(96) #2	20.52	12952429m	95.00000 ng
33) I C16(161) #2	26.79	24833214	95.00000 ng
System Monitoring Compounds			
4) s C13(34)	13.40	8893332	320.19530 ng
Spiked Amount	379.8670	Recovery	= 84.29%
11) s C16(152)	20.49	10088922	301.23376 ng
Spiked Amount	381.3865	Recovery	= 78.98%
27) s C13(34) #2	16.48	40681322m	413.73298 ng
Spiked Amount	379.8670	Recovery	= 108.92%
34) s C16(152) #2	23.63	44862491	318.13878 ng
Spiked Amount	381.3865	Recovery	= 83.42%
Target Compounds			
2) C12(8)	10.21	e 7137469	BelowCal ng
3) C13(18)	12.13	e 7980760	BelowCal ng
5) C13(28)	14.20	E 64621479	BelowCal ng
6) C14(52)	15.84	E 21543819	BelowCal ng
7) C14(44)	16.70	e 11768756	295.63961 ng
8) C14(66)	18.61	e 14356932m	322.52635 ng
9) C15(101)	19.72	e 18519788	424.42952 ng
12) C15(118)	22.40	E 43796677	BelowCal ng
13) C16(153)	23.44	e 22137430m	655.81665 ng
14) C15(105)	23.46	11646938m	235.36828 ng
15) C16(138)	24.54	E 30923961	708.47402 ng
16) C17(187)	25.30	2859122m	53.61620 ng
17) C16(128)	25.63	6998997	123.00847 ng
18) C17(180)	27.17	4624383m	74.39714 ng
19) C17(170)	27.97	3821282m	53.45033 ng
20) C18(195)	29.04	575836m	7.20747 ng
21) C19(206)	30.31	748994m	10.42250 ng
22) C110(209)	30.91	170192m	1.74461 ng
25) C12(8) #2	13.11	e 36930051	BelowCal ng
26) C13(18) #2	14.99	e 37732444	BelowCal ng
28) C13(28) #2	17.76	E 174917382	BelowCal ng
29) C14(52) #2	19.15	E 100789627	BelowCal ng
30) C14(44) #2	19.96	53950991	370.04211 ng
31) C14(66) #2	22.36	52926248m	292.70462 ng
32) C15(101) #2	23.23	E 97987284	641.67901 ng
35) C15(118) #2	26.34	E 133685799	995.02737 ng
36) C16(153) #2	26.94	e 87707382	521.81560 ng
37) C15(105) #2	27.21	56125657	233.03680 ng
38) C16(138) #2	27.78	e 79405283	421.32014 ng
39) C17(187) #2	28.14	12711048m	73.21764 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7532.D\ECD1A.CH Vial: 27
 Signal #2 : I:\M\DATA\SM0423\M7532.D\ECD2B.CH
 Acq On : 08 Nov 2014 11:49 am Operator: RR
 Sample : M8398-P(2) Inst : INST. M
 Misc : NBH14-0145 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	30612627	124.33739	ng
41)	Cl7(180) #2	29.59	18458282m	83.82576	ng
42)	Cl7(170) #2	30.22	13451987m	55.97431	ng
43)	Cl8(195) #2	31.08	2145442m	8.81171	ng
44)	Cl9(206) #2	32.18	1850047m	8.50596	ng
45)	Cl10(209) #2	32.62	641798m	2.83764	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7533.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0423\M7533.D\ECD2B.CH
 Acq On : 08 Nov 2014 12:34 pm Operator: RR
 Sample : M8399-P(2) Inst : INST. M
 Misc : NBH14-0149 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3467952	95.00000	ng
10) I C16(161)	23.21	7095996m	95.00000	ng
24) I C15(96) #2	20.52	14430981m	95.00000	ng
33) I C16(161) #2	26.79	33620717m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	9069864	372.25938	ng
Spiked Amount	379.8670	Recovery	=	98.00%
11) s C16(152)	20.48	11585034m	327.12856	ng
Spiked Amount	381.3865	Recovery	=	85.77%
27) s C13(34) #2	16.48	45015651m	409.10704	ng
Spiked Amount	379.8670	Recovery	=	107.70%
34) s C16(152) #2	23.63	57235301	302.22374	ng
Spiked Amount	381.3865	Recovery	=	79.24%
Target Compounds				
2) C12(8)	10.21	587683	24.42222	ng
3) C13(18)	12.13	911985	31.30514	ng
5) C13(28)	14.20	4233452m	92.21613	ng
6) C14(52)	15.84	3194374	96.17579	ng
7) C14(44)	16.70	1754302	34.72350	ng
8) C14(66)	18.61	2619668m	47.23817	ng
9) C15(101)	19.72	3441317	63.84452	ng
12) C15(118)	22.39	5222140m	103.47713	ng
13) C16(153)	23.43	4154473m	82.69805	ng
14) C15(105)	23.45	2138384m	31.33343	ng
15) C16(138)	24.54	5238358m	82.12877	ng
16) C17(187)	25.29	623881m	8.84300	ng
17) C16(128)	25.62	1327218m	20.03926	ng
18) C17(180)	27.16	925616m	12.12355	ng
19) C17(170)	27.96	712644m	7.83337	ng
20) C18(195)	29.04	143381	0.49392	ng
21) C19(206)	30.30	118742m	0.41970	ng
22) C110(209)	30.91	41921m	BelowCal	ng
25) C12(8) #2	13.11	2467188m	23.04439	ng
26) C13(18) #2	14.99	4346775m	36.42782	ng
28) C13(28) #2	17.76	19910328m	97.82300	ng
29) C14(52) #2	19.15	15309613m	133.75829	ng
30) C14(44) #2	19.96	8561500m	38.30748	ng
31) C14(66) #2	22.35	11678782m	48.01837	ng
32) C15(101) #2	23.23	8885202m	65.47292	ng
35) C15(118) #2	26.34	25288536m	119.88767	ng
36) C16(153) #2	26.93	19355693m	85.44825	ng
37) C15(105) #2	27.20	10567968m	32.89233	ng
38) C16(138) #2	27.78	17834682m	81.88293	ng
39) C17(187) #2	28.14	3647309m	13.62992	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7533.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0423\M7533.D\ECD2B.CH
 Acq On : 08 Nov 2014 12:34 pm Operator: RR
 Sample : M8399-P(2) Inst : INST. M
 Misc : NBH14-0149 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:54:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:54:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	7124117m	20.36585	ng
41)	Cl7(180) #2	29.59	4874898m	15.28790	ng
42)	Cl7(170) #2	30.22	3285319m	9.05333	ng
43)	Cl8(195) #2	31.08	574201m	0.67231	ng
44)	Cl9(206) #2	32.18	415314m	0.45120	ng
45)	Cl10(209) #2	32.62	211651m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7544.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0423\M7544.D\ECD2B.CH
 Acq On : 11-8-2014 08:44:38 PM Operator: RR
 Sample : M8377-P-D(4) Inst : INST. M
 Misc : NBH14-0281 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:55:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:55:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3048730m	95.00000	ng
10) I C16(161)	23.21	7221829	95.00000	ng
24) I C15(96) #2	20.52	18877567	95.00000	ng
33) I C16(161) #2	26.79	41158929	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	353266m	6.03941	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.39	791660m	12.13399	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	2322316m	6.42002	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.33	4527358m	14.25718	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7544.D\ECD1A.CH Vial: 39
 Signal #2 : I:\M\DATA\SM0423\M7544.D\ECD2B.CH
 Acq On : 11-8-2014 08:44:38 PM Operator: RR
 Sample : M8377-P-D(4) Inst : INST. M
 Misc : NBH14-0281 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:55:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:55:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7545.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0423\M7545.D\ECD2B.CH
 Acq On : 11-8-2014 09:29:29 PM Operator: RR
 Sample : M8378-P-D(4) Inst : INST. M
 Misc : NBH14-0285 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:55:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:55:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3151053m	95.00000	ng
10) I C16(161)	23.22	7453505m	95.00000	ng
24) I C15(96) #2	20.52	15019310m	95.00000	ng
33) I C16(161) #2	26.79	37758922m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	672302m	13.16393	ng
6) C14(52)	15.84	779452	19.71598	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	18.62	724561m	12.15476	ng
9) C15(101)	19.72	1130912	21.40282	ng
12) C15(118)	22.39	1716150m	28.96921	ng
13) C16(153)	23.43	1244076m	22.19082	ng
14) C15(105)	23.46	641728m	7.06449	ng
15) C16(138)	24.54	1770350m	24.23191	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	4046314m	16.48929	ng
29) C14(52) #2	19.15	3788783m	26.98305	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	22.36	3608297m	12.57745	ng
32) C15(101) #2	23.23	3437566m	22.23112	ng
35) C15(118) #2	26.34	7905015m	30.40956	ng
36) C16(153) #2	26.93	5831103m	20.16656	ng
37) C15(105) #2	27.20	3327543m	7.90273	ng
38) C16(138) #2	27.78	6293360m	25.83919	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7545.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0423\M7545.D\ECD2B.CH
 Acq On : 11-8-2014 09:29:29 PM Operator: RR
 Sample : M8378-P-D(4) Inst : INST. M
 Misc : NBH14-0285 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:55:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:55:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7546.D\ECD1A.CH Vial: 41
 Signal #2 : I:\M\DATA\SM0423\M7546.D\ECD2B.CH
 Acq On : 08 Nov 2014 10:14 pm Operator: RR
 Sample : M8379-P-D(4) Inst : INST. M
 Misc : NBH14-0289 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:55:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:55:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2818436m	95.00000	ng
10) I C16(161)	23.22	6153499m	95.00000	ng
24) I C15(96) #2	20.51	16473995m	95.00000	ng
33) I C16(161) #2	26.79	42163722m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.39	945705m	18.24606	ng
13) C16(153)	23.43	772018m	16.38306	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	998250m	15.75023	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.33	5846510m	18.91021	ng
36) C16(153) #2	26.93	4487214m	12.67334	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	4658497m	16.87337	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7546.D\ECD1A.CH Vial: 41
 Signal #2 : I:\M\DATA\SM0423\M7546.D\ECD2B.CH
 Acq On : 08 Nov 2014 10:14 pm Operator: RR
 Sample : M8379-P-D(4) Inst : INST. M
 Misc : NBH14-0289 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:55:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:55:51 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7550.D\ECD1A.CH Vial: 45
 Signal #2 : I:\M\DATA\SM0423\M7550.D\ECD2B.CH
 Acq On : 11-9-2014 01:13:44 AM Operator: RR
 Sample : M8395-P-D(4) Inst : INST. M
 Misc : NBH14-0133 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:56:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:56:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2880283	95.00000	ng
10) I C16(161)	23.21	6695342m	95.00000	ng
24) I C15(96) #2	20.51	14313584m	95.00000	ng
33) I C16(161) #2	26.79	34615467m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	20.48	832053	18.39336	ng
Spiked Amount	19.0757	Recovery	=	96.42%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	23.62	3565815m	17.40121	ng
Spiked Amount	19.0757	Recovery	=	91.22%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	1148272m	26.93629	ng
6) C14(52)	15.83	762157	21.54700	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	18.61	767901m	14.53997	ng
9) C15(101)	19.72	1220233	25.63629	ng
12) C15(118)	22.39	2083039m	40.44352	ng
13) C16(153)	23.43	1458462m	29.36863	ng
14) C15(105)	23.46	760778m	10.11356	ng
15) C16(138)	24.53	2171984m	34.08935	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	5419221m	24.09022	ng
29) C14(52) #2	19.14	3952379m	29.84920	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	22.36	4028489m	15.09446	ng
32) C15(101) #2	23.23	3845319m	26.77591	ng
35) C15(118) #2	26.33	10058395m	43.66422	ng
36) C16(153) #2	26.93	7522154m	29.96390	ng
37) C15(105) #2	27.20	4616505m	12.93353	ng
38) C16(138) #2	27.78	8040825m	36.19968	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7550.D\ECD1A.CH Vial: 45
 Signal #2 : I:\M\DATA\SM0423\M7550.D\ECD2B.CH
 Acq On : 11-9-2014 01:13:44 AM Operator: RR
 Sample : M8395-P-D(4) Inst : INST. M
 Misc : NBH14-0133 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:56:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:56:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7552.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0423\M7552.D\ECD2B.CH
 Acq On : 11-9-2014 02:43:08 AM Operator: RR
 Sample : M8396-P-D(4) Inst : INST. M
 Misc : NBH14-0137 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:32:01 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:31:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2961828	95.00000	ng
10) I C16(161)	23.21	6855590m	95.00000	ng
24) I C15(96) #2	20.51	15576981m	95.00000	ng
33) I C16(161) #2	26.79	39984413	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	22.39	1300015m	23.26357	ng
13) C16(153)	23.43	933887m	17.88801	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1325473m	19.24871	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	26.33	6873114m	24.31176	ng
36) C16(153) #2	26.94	5535684m	17.67293	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5304917m	20.42469	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7552.D\ECD1A.CH Vial: 47
 Signal #2 : I:\M\DATA\SM0423\M7552.D\ECD2B.CH
 Acq On : 11-9-2014 02:43:08 AM Operator: RR
 Sample : M8396-P-D(4) Inst : INST. M
 Misc : NBH14-0137 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 08:32:01 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 08:31:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7553.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0423\M7553.D\ECD2B.CH
 Acq On : 11-9-2014 03:27:49 AM Operator: RR
 Sample : M8397-P-D(4) Inst : INST. M
 Misc : NBH14-0141 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:56:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:56:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2938973	95.00000	ng
10) I C16(161)	23.22	6629681	95.00000	ng
24) I C15(96) #2	20.51	15046552m	95.00000	ng
33) I C16(161) #2	26.79	37848133	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	14.20	1137705m	26.06832	ng
6) C14(52)	15.84	782842	21.73349	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	19.72	988099	19.92440	ng
12) C15(118)	22.39	1646430m	31.52323	ng
13) C16(153)	23.43	1085930m	21.75353	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1518753m	23.27892	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	17.76	6421330m	27.46731	ng
29) C14(52) #2	19.15	4214957m	30.33095	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	23.23	3067397m	19.36027	ng
35) C15(118) #2	26.33	8356260m	32.27193	ng
36) C16(153) #2	26.94	5899529m	20.39176	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	5824706	23.80835	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7553.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0423\M7553.D\ECD2B.CH
 Acq On : 11-9-2014 03:27:49 AM Operator: RR
 Sample : M8397-P-D(4) Inst : INST. M
 Misc : NBH14-0141 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:56:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:56:16 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7554.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0423\M7554.D\ECD2B.CH
 Acq On : 11-9-2014 04:12:40 AM Operator: RR
 Sample : M8398-P-D(4) Inst : INST. M
 Misc : NBH14-0145 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:56:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:56:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2927377	95.00000	ng
10) I C16(161)	23.21	6728469	95.00000	ng
24) I C15(96) #2	20.51	15823580m	95.00000	ng
33) I C16(161) #2	26.79	40339284m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
11) s C16(152)	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
27) s C13(34) #2	0.00	0d	N.D.	ng
Spiked Amount	18.9997	Recovery	=	0.00%
34) s C16(152) #2	0.00	0d	N.D.	ng
Spiked Amount	19.0757	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	460712	22.35210	ng
3) C13(18)	12.13	539802	20.25394	ng
5) C13(28)	14.20	2265902m	55.83383	ng
6) C14(52)	15.83	1386525	44.21609	ng
7) C14(44)	16.70	723169m	15.12283	ng
8) C14(66)	18.61	1178608m	23.46748	ng
9) C15(101)	19.72	1307893	27.15406	ng
12) C15(118)	22.39	2160587m	41.87230	ng
13) C16(153)	23.43	1457490m	29.19654	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	24.53	1783819m	27.35462	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	13.10	2492930m	20.99734	ng
26) C13(18) #2	14.99	2981942m	20.54579	ng
28) C13(28) #2	17.76	12506009m	53.48392	ng
29) C14(52) #2	19.15	7990499m	58.09690	ng
30) C14(44) #2	19.96	4414614m	16.81679	ng
31) C14(66) #2	22.35	6750690m	24.02277	ng
32) C15(101) #2	23.23	4666991m	29.76725	ng
35) C15(118) #2	26.34	11392446m	42.33056	ng
36) C16(153) #2	26.94	8164924m	27.64394	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	27.78	7434104m	28.63234	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7554.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0423\M7554.D\ECD2B.CH
 Acq On : 11-9-2014 04:12:40 AM Operator: RR
 Sample : M8398-P-D(4) Inst : INST. M
 Misc : NBH14-0145 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 07:56:47 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 07:56:41 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7508.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0423\M7508.D\ECD2B.CH
 Acq On : 11-7-2014 05:56:32 PM Operator: RR
 Sample : CD586PB-P(0) Inst : INST. M
 Misc : Procedural Blank 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:17 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:10 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3500251	100.00000	ng
4) I C15(96) #2	20.52	15534506m	100.00000	ng
Target Compounds				
2) C15(101)	0.00	0d	N.D.	ng
5) C15(101) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7509.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0423\M7509.D\ECD2B.CH
 Acq On : 11-7-2014 06:40:55 PM Operator: RR
 Sample : CD587LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:22 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.40	3678408	100.00000	ng	
4) I C15(96) #2	20.52	16362055m	100.00000	ng	
Target Compounds					
2) C15(101)	19.74	1856656m	31.84318	ng	85%
5) C15(101) #2	23.22	12275654m	35.51176	ng	95%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7510.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0423\M7510.D\ECD2B.CH
 Acq On : 11-7-2014 07:25:27 PM Operator: RR
 Sample : M8157-P(2) Inst : INST. M
 Misc : NBH14-0021 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:27 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3606887	95.00000	ng
4) I C15(96) #2	20.52	14908515m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2425028	41.02641	ng
5) C15(101) #2	23.23	12358784m	37.34353	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0423\M7511.D\ECD1A.CH Vial: 6
 Acq On : 11-7-2014 08:09:52 PM Operator: RR
 Sample : M8169-P(2) Inst : INST. M
 Misc : NBH14-0077 5-128 14-0496 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0423\M7511.D\ECD2B.CH Vial: 6
 Acq On : 11-7-2014 08:09:51 PM Operator: RR
 Sample : M8169-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e
 Quant Time: Dec 08 09:52:31 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3730347m	95.00000	ng
4) I C15(96) #2	20.52	14801084m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1737504	27.75791	ng
5) C15(101) #2	23.23	10001485m	30.35347	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7512.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0423\M7512.D\ECD2B.CH
 Acq On : 11-7-2014 08:54:35 PM Operator: RR
 Sample : M8172-P(2) Inst : INST. M
 Misc : NBH14-0089 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:35 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:30 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	3413799m	95.00000	ng
4) I C15(96) #2	20.52	17180107m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	914706	15.17258	ng
5) C15(101) #2	23.23	5722283m	15.18085	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7513.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0423\M7513.D\ECD2B.CH
 Acq On : 11-7-2014 09:39:31 PM Operator: RR
 Sample : M8173-P(2) Inst : INST. M
 Misc : NBH14-0093 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:40 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:34 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3821753	95.00000	ng
4) I C15(96) #2	20.52	14464983m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3208227	51.86081	ng
5) C15(101) #2	23.23	19439905m	61.88248	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7514.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0423\M7514.D\ECD2B.CH
 Acq On : 07 Nov 2014 10:24 pm Operator: RR
 Sample : M8173DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0093 5-128 14-049 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:43 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:38 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3818478	95.00000	ng
4) I C15(96) #2	20.52	15214332m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3229338	52.26764	ng
5) C15(101) #2	23.23	19510833m	58.85809	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7515.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0423\M7515.D\ECD2B.CH
 Acq On : 07 Nov 2014 11:09 pm Operator: RR
 Sample : M8174-P(2) Inst : INST. M
 Misc : NBH14-0097 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:47 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:42 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3598087m	95.00000	ng
4) I C15(96) #2	20.52	17393537m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3505626	60.66754	ng
5) C15(101) #2	23.23	19644409m	51.45126	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7516.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0423\M7516.D\ECD2B.CH
 Acq On : 07 Nov 2014 11:54 pm Operator: RR
 Sample : M8374-P(2) Inst : INST. M
 Misc : NBH14-0269 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:51 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:46 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3993606	95.00000	ng
4) I C15(96) #2	20.52	16968250m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1036673	14.64330	ng
5) C15(101) #2	23.23	5555964m	14.93595	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7517.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0423\M7517.D\ECD2B.CH
 Acq On : 08 Nov 2014 12:38 am Operator: RR
 Sample : M8375-P(2) Inst : INST. M
 Misc : NBH14-0273 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:52:55 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3642557m	95.00000	ng
4) I C15(96) #2	20.52	14592652m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	2242932	37.37901	ng
5) C15(101) #2	23.23	12980820m	40.14352	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7519.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0423\M7519.D\ECD2B.CH
 Acq On : 11-8-2014 02:08:14 AM Operator: RR
 Sample : M8376-P(2) Inst : INST. M
 Misc : NBH14-0277 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:05 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:52:58 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3706957m	95.00000	ng
4) I C15(96) #2	20.52	15366104m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3596245	60.39437	ng
5) C15(101) #2	23.23	22002369m	66.25266	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7520.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0423\M7520.D\ECD2B.CH
 Acq On : 11-8-2014 02:53:00 AM Operator: RR
 Sample : M8377-P(2) Inst : INST. M
 Misc : NBH14-0281 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:08 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:03 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3661218m	95.00000	ng
4) I C15(96) #2	20.52	17154942m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	5620383	97.95464	ng
5) C15(101) #2	23.23	29485483m	80.92188	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7522.D\ECD1A.CH Vial: 17
 Signal #2 : I:\M\DATA\SM0423\M7522.D\ECD2B.CH
 Acq On : 11-8-2014 04:22:30 AM Operator: RR
 Sample : M8379-P(2) Inst : INST. M
 Misc : NBH14-0289 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:13 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:07 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3608786	95.00000	ng
4) I C15(96) #2	20.52	14094583m	95.00000	ng
Target Compounds				
2) C15(101)	19.73	7664360	138.31840	ng
5) C15(101) #2	23.23	43978406m	165.29950	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7523.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0423\M7523.D\ECD2B.CH
 Acq On : 11-8-2014 05:07:03 AM Operator: RR
 Sample : M8389-P(2) Inst : INST. M
 Misc : NBH14-0109 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:17 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3576563m	95.00000	ng
4) I C15(96) #2	20.52	15310743m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1718325	28.69557	ng
5) C15(101) #2	23.23	10175501m	29.85101	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7524.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0423\M7524.D\ECD2B.CH
 Acq On : 11-8-2014 05:51:48 AM Operator: RR
 Sample : M8390-P(2) Inst : INST. M
 Misc : NBH14-0113 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:20 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3841608	95.00000	ng
4) I C15(96) #2	20.52	15551885m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	725274	10.17020	ng
5) C15(101) #2	23.23	3485148m	10.47848	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7525.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0423\M7525.D\ECD2B.CH
 Acq On : 11-8-2014 06:36:25 AM Operator: RR
 Sample : M8390MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0113 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:25 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3712111	100.00000	ng
4) I C15(96) #2	20.51	16394768m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	3013066m	52.68820	ng
5) C15(101) #2	23.22	18779539m	54.96945	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7526.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0423\M7526.D\ECD2B.CH
 Acq On : 11-8-2014 07:21:09 AM Operator: RR
 Sample : M8390MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0113 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:28 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:23 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3815342	100.00000	ng
4) I C15(96) #2	20.52	17197358m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	3401991m	58.17144	ng
5) C15(101) #2	23.21	20543329m	57.45931	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7527.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0423\M7527.D\ECD2B.CH
 Acq On : 11-8-2014 08:05:46 AM Operator: RR
 Sample : M8391-P(2) Inst : INST. M
 Misc : NBH14-0117 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:32 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3562613	95.00000	ng
4) I C15(96) #2	20.51	16022197m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	828316	12.93033	ng
5) C15(101) #2	23.22	4604057m	13.20107	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7530.D\ECD1A.CH Vial: 25
 Signal #2 : I:\M\DATA\SM0423\M7530.D\ECD2B.CH
 Acq On : 08 Nov 2014 10:20 am Operator: RR
 Sample : M8396-P(2) Inst : INST. M
 Misc : NBH14-0137 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:35 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3170879m	95.00000	ng
4) I C15(96) #2	20.52	12072108m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	8941219	187.82907	ng
5) C15(101) #2	23.23	52159062m	276.61115	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7533.D\ECD1A.CH Vial: 28
 Signal #2 : I:\M\DATA\SM0423\M7533.D\ECD2B.CH
 Acq On : 08 Nov 2014 12:34 pm Operator: RR
 Sample : M8399-P(2) Inst : INST. M
 Misc : NBH14-0149 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:45 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3467952	95.00000	ng
4) I C15(96) #2	20.52	14510531m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	3441317	61.84880	ng
5) C15(101) #2	23.23	19181684m	60.79735	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7545.D\ECD1A.CH Vial: 40
 Signal #2 : I:\M\DATA\SM0423\M7545.D\ECD2B.CH
 Acq On : 11-8-2014 09:29:29 PM Operator: RR
 Sample : M8378-P-D(4) Inst : INST. M
 Misc : NBH14-0285 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:53:56 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:49 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	3214494	95.00000	ng
4) I C15(96) #2	20.52	15073272m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1130912	20.49383	ng
5) C15(101) #2	23.23	5968255m	17.92000	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7550.D\ECD1A.CH Vial: 45
 Signal #2 : I:\M\DATA\SM0423\M7550.D\ECD2B.CH
 Acq On : 11-9-2014 01:13:44 AM Operator: RR
 Sample : M8395-P-D(4) Inst : INST. M
 Misc : NBH14-0133 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:54:01 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:53:54 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2880283	95.00000	ng
4) I C15(96) #2	20.51	14412344m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1220233	25.06814	ng
5) C15(101) #2	23.23	7066500m	22.06793	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7553.D\ECD1A.CH Vial: 48
 Signal #2 : I:\M\DATA\SM0423\M7553.D\ECD2B.CH
 Acq On : 11-9-2014 03:27:49 AM Operator: RR
 Sample : M8397-P-D(4) Inst : INST. M
 Misc : NBH14-0141 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:54:11 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:54:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2938973	95.00000	ng
4) I C15(96) #2	20.51	15072112m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	988099	19.50180	ng
5) C15(101) #2	23.23	5764066m	17.32948	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0423\M7554.D\ECD1A.CH Vial: 49
 Signal #2 : I:\M\DATA\SM0423\M7554.D\ECD2B.CH
 Acq On : 11-9-2014 04:12:40 AM Operator: RR
 Sample : M8398-P-D(4) Inst : INST. M
 Misc : NBH14-0145 5-128 14-0496 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 09:54:16 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:54:10 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2927377	95.00000	ng
4) I C15(96) #2	20.51	15898942m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	1307893	26.54434	ng
5) C15(101) #2	23.23	8261449m	23.36577	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED, TISSUE
Batch 14-0497
Package DP-14-0679

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA


Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061


Battelle
The Business of Innovation


USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED, TISSUE
Batch 14-0497
Package DP-14-0679

Submitted to:
USACE/NAE
696 Virginia Road
Concord, MA 01742 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061






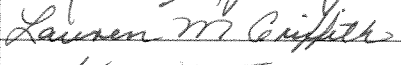




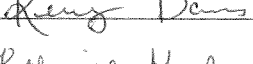
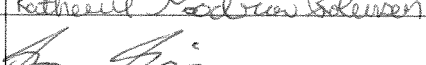

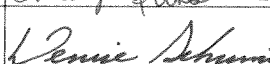












Analyst Approval:  Rich Restucci
2014.11.25 10:52:43 -05'00'

QC Chemist Approval:  Carla Devine
2014.12.10 13:41:52 -05'00'

Project Manager Approval:  Carole McCarthy
2014.12.11 07:38:59 -05'00'

Battelle
The Business of Innovation

2014 Signature Page

Name (print)	Name (signature)	Initials
Matt Schumitz		MNS
Ellyn M Webb		EMW
Carla Devine		CRD
Roxanne M. Brackett		RMB
Robert Lizotte, Jr.		BL
Lauren M Griffith		LMG
Kevin M. McInerney		KMC
Michael McGee		
Rich Restucci		RR
Stephanie Hart		SAH
Kerry Davis		KPD
Katherine Goodrow Robinson		KGR
Sam Guimaraes		SAG
Emily Fraser		EF
Denise Schumitz		DAS
Jonathan Thorn		JRT
Christie Usher		CU
Caitlyn Farragher		CNF
Mart J. Benotti		
William H Brown		WB
Dawn Trapp		DBT
Carolee Lynn McLain		CSM
Weidong Li		W.L
Jeannine Seyfert		JS
FRANCO PALA		FP

USACE/NAE - New Bedford Harbor LTM Study
Project No 100053747
Pesticide / PCB by GC/ECD
SED, TISSUE
Batch 14-0497
Package DP-14-0679

1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	23
3	<i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	39
4	<i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	50
5	<i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	73
6	<i>Analytical Data</i> Raw Data Quantification Reports.	122
7	<i>Chromatograms</i> Sample And Standard Chromatograms.	N/A
8	<i>Unused Data</i>	N/A

WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: USACE-NAE New Bedford Harbor LTM MDL Study
Project Number: 100053747
Client: USACE/NAE
696 Virginia Road
Concord, MA 01742
USA
Client Contact Information: Peter Hugh
Engineering Technical Lead
(978) 318-8452(V)
NA
NA
Effective Date of QAPP: 10/9/2014
Version Number: 100053747(S)-02
Project Manager: Peven-McCarthy, Carole
Laboratory Task Manager: Peven-McCarthy, Carole
Deliverable Due Date: 11/3/2014

2.0 SCOPE OF WORK

Overview: A project-specific MDL study is required for this project.
Matrix: Soil/Sediment

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions: Store frozen.
Sub_Sampling: None
Procedures: NA
Contact: NA
Comment: NA
Archiving: NA
Disposal: NA

WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

NA

Samples Expected:	Samples Per Batch:	Batches Expected:
	20	

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

Type:	Description:	Count:	Rgt:	Reference:	Comment:
PB	Laboratory control reagent blank.	1 per batch	--	NA	
LCS	Laboratory Control Sample	1 per batch	No	NA	
MDL	Method Detection Limits	8 per batch	Yes	140304-02: Mud Dump Reference N4415 Lot:N4415	

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev:	5-192-14
SOP Title:	<i>Soil/Sediment Extraction for Trace Level Semi-Volatile Organic Contaminant Analysis</i>
Sample Size:	10 g
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	NA
Comments:	NA

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB Surrogate	ID59 SIS	~ 100 ng	100 uL	NA
ECD LCS/MS Solution	HX10 LCS/MS	~ 38 - 150 ng	75 uL	LCS
PDL spike ECD	ID73 LCS/MS	~ 7.5 - 30.0 ng	150 uL	MDL samples

2.1.3.2 Cleanup

WORK/QUALITY ASSURANCE PROJECT PLAN

- | | | |
|----|--------------|---|
| 1) | SOP No.-Rev: | 5-328-04 |
| | SOP Title: | <i>Removal (cleanup) of Sulfur from Environmental Sample Extracts</i> |
| | Deviations: | NA |
| | Comments: | NA |
| 2) | SOP No.-Rev: | 5-327-04 |
| | SOP Title: | <i>Florisil Cleanup of Environmental Sample Extracts</i> |
| | Deviations: | Elute with Hexane only |
| | Comments: | NA |

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PCB IS	IE11 RIS	~ 100 ng	100 uL	NA

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

- | | | |
|----|-------------|---|
| 1) | SOP_No-Rev: | 5-128-13 |
| | SOP_Title: | <i>Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection</i> |
| | Deviations: | NA |
| | Comments: | Report SIS corrected data |

2.2. DELIVERABLES

Deliverables Due:	11/3/2014
LIMS Reports:	Yes
Histograms:	No
Excel Tables:	Yes
EICs:	No
Chromatograms:	No

WORK/QUALITY ASSURANCE PROJECT PLAN

EDDs: *Yes*

Comments:

Required 30 day TAT.

EDD required.

Full data package (pdf) required for external validation.

Detailed quant reports are not required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

Staff Member	Role	Comment
Carole S. Peven-McCarthy	Project Manager	NA
Samuel A. Guimaraes	Sample Preparation	NA
Richard P. Restucci Jr	GC/ECD Analysis	NA
Matt D. Schumitz	Sample Custody	NA
Carla R. Devine	Quality Control Officer	NA

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	10/03/2014	NA	0	NA
Sample Preparation	10/06/2014	10/09/2014	3	NA
Instrument Analysis	10/09/2014	10/24/2014	15	NA

WORK/QUALITY ASSURANCE PROJECT PLAN

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Quality Control Review	10/27/2014	10/29/2014	2	NA
Final Data Reporting	10/29/2014	10/31/2014	2	NA

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

Labor Activity:	Hours/ Batch:	Batches:	Total Hours:	Comment:
Sample Receipt	1	1	1	NA
Sample Preparation	24	1	24	NA
<i>Extraction</i>	20			
<i>glassware</i>	4			
Instrument Analysis	16	1	16	NA
<i>GC/ECD</i>	16			
Quality Control Review	3	1	3	NA
Final Data Reporting	1	1	1	NA

7.0 STAFF DEVELOPMENT

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name:	Master_128
SOP Reference:	5-128 - Identification and Quantification of Polychlorinated Biphenyls (By Congener and Aroclor) and Chlorinated Pesticides by Gas Chromatography/Electron Capture Detection
Description:	Pesticide / PCB by GC/ECD
Matrix:	S - Solid Samples, like soil or sediment, prepared and analyzed under the same class of detection limits.
Detection Limit Study:	5-128-2013-ssMDL-SF
Instrument:	ECD
MQO Criteria	USACE/NBH LTMP
Standard Report:	Standard Result Report

Method Specific Reporting		Holding Times (days)		Data Flags
Result Units:	ng/g	Unit Conversion:	(none)	Sample: 14 DL_Flag: U
Weight Basis:	DRY	Result Format:	Significant Figure	Frozen: 365 RL_Flag: J
Standard Basis:	SIS	# of Figures/Digits:	3	Extract: 40 PB_Flag: B
Oil Weight Basis:	No	Oil Weight Source:	Oil Weight	DIL_Flag: D
U-Value Substitution:	U-Flag=NED	Histograms:	No	HT_Flag: T
ECD_Reporting:	Yes			
ECD_Result:	Higher	ECD_Flag	p	
RPD_Limit (<%):	40	ECD_Manual_Flag:	m	

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Cl2(8)	Cl2(8)	T	Cl5(96)	Cl3(34)	No	No
2	Cl3(18)	Cl3(18)	T	Cl5(96)	Cl3(34)	No	No
3	Cl3(28)	Cl3(28)	T	Cl5(96)	Cl3(34)	No	No
4	Cl4(44)	Cl4(44)	T	Cl5(96)	Cl3(34)	No	No
5	Cl4(52)	Cl4(52)	T	Cl5(96)	Cl3(34)	No	No
6	Cl4(66)	Cl4(66)	T	Cl5(96)	Cl3(34)	No	No
7	Cl5(101)	Cl5(101)	T	Cl5(96)	Cl3(34)	No	No
8	Cl5(105)	Cl5(105)	T	Cl6(161)	Cl6(152)	No	No
9	Cl5(118)	Cl5(118)	T	Cl6(161)	Cl6(152)	No	No
10	Cl6(128)	Cl6(128)	T	Cl6(161)	Cl6(152)	No	No
11	Cl6(138)	Cl6(138)	T	Cl6(161)	Cl6(152)	No	No
12	Cl6(153)	Cl6(153)	T	Cl6(161)	Cl6(152)	No	No
13	Cl7(170)	Cl7(170)	T	Cl6(161)	Cl6(152)	No	No
14	Cl7(180)	Cl7(180)	T	Cl6(161)	Cl6(152)	No	No
15	Cl7(187)	Cl7(187)	T	Cl6(161)	Cl6(152)	No	No
16	Cl8(195)	Cl8(195)	T	Cl6(161)	Cl6(152)	No	No

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
17	CI9(206)	CI9(206)	T	CI6(161)	CI6(152)	No	No
18	CI10(209)	CI10(209)	T	CI6(161)	CI6(152)	No	No
1	CI3(34)	CI3(34)	SIS	CI5(96)		No	No
2	CI6(152)	CI6(152)	SIS	CI6(161)		No	No

Total Analytes: 20

Subtract Peaks:

None

Sum Peaks:

None

Battelle

The Business of Innovation

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_128

ICAL Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Continuing Calibration Verification Criteria:

CCV Name: 5-128

Frequency Hrs:	Mean PD(%):	Individual PD(%):	RIS/SIS RT Window (min):	Area Limit Low(%):	Area Limit High(%):	Comment:
24 (N)	15 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Independent Calibration Verification:

ICC Name: 5-128

Mean PD Limit(%):	Ind. PD Limit(%):	RIS/SIS Window Limit (Secs):	Area Limit High(%):	Area Limit Low(%):	Comment:
20 (N)	20 (N)	0.25 (N)	-50	100 (N)	NA

Mass Discrimination Criteria:

None

Degradation Check Criteria:

Degradation Check Name: 5-128

DDT Breakdown Limit (%):	Endrin Breakdown Limit(%):	Total Breakdown Limit(%):	Comment:
20 (N)	20 (N)	20 (N)	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Procedural Blank	Samples must be greater than five times the blank concentration (>5xPB).	B	Review with Project Manager; re-analyze or justify results in project records.
PB Measurement Quality Objective	Organic results in the Procedural Blank are less than the ssRL (<ssRL)	N	
Laboratory Control Sample	Recovery values 70-130%.	N	Review with project manager; re-analyze or justify reporting the results in project records.
Matrix Spike Recovery	Organics 70-130%. Analyte concentration in MS must be >5 times reported background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Matrix Spike/Spike Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Spike must be >5x background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Standard Reference Material Accuracy	Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit (>5xMDL).	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the MDL	n	
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Concentration must be >10X the MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 10 times the MDL	n	
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Concentration must be >10X the MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 10 times the MDL	n	

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application		USACE/NBH LTMP	
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Surrogate Compound Recovery	Recovery results between 40% and 120%.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Control Oil	RPD < 30% for at least 90% of analytes	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Instrument Calibration	5-128-13: R-squared greater than or equal to 0.995 Mean RSD less than or equal to 15%, Individual RSD less than or equal to 25%	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Independent Calibration Check Solution	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 20%.	N	Review with Project Manager; re-analyze or justify in project records.
Continuing Calibration Verification	5-128-13: Individual PD less than or equal to 20%. Mean Percent Difference less than or equal to 15%.	N	

Sample Receipt Form

Approved: Authorized:

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA

COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler		None	Intact	Intact	1.0	23

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0117 (NA) BDO IDs Assigned: M8152 - M8174

Samples logged in by: Schumitz, Matt Date/Time: 09/26/2014 12:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: _____ Client: _____

Received by: Schumitz, Matt Date/Time Received: Friday, September 26, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8152	NBH14-0001	09/22/14 15:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8153	NBH14-0005	09/22/14 14:24	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8154	NBH14-0009	09/22/14 11:16	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8155	NBH14-0013	09/22/14 12:08	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8156	NBH14-0017	09/22/14 8:13	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8157	NBH14-0021	09/22/14 11:38	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8158	NBH14-0025	09/22/14 9:37	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8159	NBH14-0029	09/22/14 10:40	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8160	NBH14-0033	09/22/14 15:25	09/26/14 14:08	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8161	NBH14-0037	09/22/14 14:03	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8162	NBH14-0041	09/22/14 13:06	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8163	NBH14-0045	09/23/14 15:43	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8164	NBH14-0049	09/23/14 14:57	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8165	NBH14-0053	09/23/14 13:53	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8166	NBH14-0061	09/23/14 10:12	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8167	NBH14-0065	09/23/14 9:09	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8168	NBH14-0073	09/23/14 14:27	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8169	NBH14-0077	09/23/14 13:39	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8170	NBH14-0081	09/23/14 12:26	09/26/14 14:09	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8171	NBH14-0085	09/23/14 11:29	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8172	NBH14-0089	09/23/14 10:32	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8173	NBH14-0093	09/23/14 9:53	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	
M8174	NBH14-0097	09/23/14 8:57	09/26/14 14:10	1	SED	1	NA	NA	NA	F0117 (NA)	BIN	60	

Total Samples: 23



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-1068

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/22/2014	15:24	NBH14-0001	M8152	SED	120-14LTM	1	X						
9/22/2014	14:24	NBH14-0005	M8153	SED	125-14LTM	1	X						
9/22/2014	11:16	NBH14-0009	M8154	SED	130-14LTM	1	X						
9/22/2014	12:08	NBH14-0013	M8155	SED	134-14LTM	1	X						
9/22/2014	8:13	NBH14-0017	M8156	SED	150-14LTM	1	X						
9/22/2014	11:38	NBH14-0021	M8157	SED	253-14LTM	1	X						
9/22/2014	9:37	NBH14-0025	M8158	SED	216-14LTM	1	X						
9/22/2014	10:40	NBH14-0029	M8159	SED	220-14LTM	1	X						
9/22/2014	15:25	NBH14-0033	M8160	SED	235-14LTM	1	X						
9/22/2014	14:03	NBH14-0037	M8161	SED	240-14LTM	1	X						
9/22/2014	13:06	NBH14-0041	M8162	SED	245-14LTM	1	X						
9/23/2014	15:43	NBH14-0045	M8163	SED	146-14LTM	1	X						
9/23/2014	14:57	NBH14-0049	M8164	SED	140-14LTM	1	X						
9/23/2014	13:53	NBH14-0053	M8165	SED	202-14LTM	1	X						
9/23/2014	10:12	NBH14-0061	M8166	SED	147-14LTM	1	X						
9/23/2014	9:09	NBH14-0065	M8167	SED	135-14LTM	1	X						
9/23/2014	14:27	NBH14-0073	M8168	SED	333-14LTM	1	X						
9/23/2014	13:39	NBH14-0077	M8169	SED	339-14LTM	1	X						
9/23/2014	12:26	NBH14-0081	M8170	SED	346-14LTM	1	X						
9/23/2014	11:29	NBH14-0085	M8171	SED	340-14LTM	1	X						

Relinquished By (name/date/time):

J M Tenzar 9/26/14 9:15

Received By(name/date/time):

MW 9/26/14 9:15



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061


Samplers Signature: PSD & MRF


Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

E-1069

Analyses (Record No. of containers / Preservative)

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/23/2014	10:32	NBH14-0089	M8172	SED	341-14LTM	1	X						
9/23/2014	9:53	NBH14-0093	M8173	SED	334-14LTM	1	X						
9/23/2014	8:57	NBH14-0097	M8174	SED	335-14LTM	1	X						

Relinquished By (name/date/time):
 9/26/14 9:15

Received By(name/date/time):
 9/26/14

Sample Receipt Form

Approved: Authorized

Project Number: 100043429 Client: USACE
Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM
No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Hand Delivered Tracking Number: NA
COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal Condition	Container Condition	Temp C	Smps
1 of 1	Cooler	NA	Custody Seals	Intact	Intact	1.2	60

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.2 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: Yes No Unknown /Lot No.: UnKnown

Storage Location: Custody: Freezer - F0113 (NA) BDO IDs Assigned: M8347 - M8406
Samples logged in by: Schumitz, Matt Date/Time: 10/01/2014 12:00 AM
Approved By: Devine, Carla Approved On: 12/5/2014 9:32:00 AM
Authorized By: _____ Authorized On: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8347	NBH14-0057	09/30/14 10:09	10/02/14 10:08	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8348	NBH14-0069	09/30/14 10:25	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8349	NBH14-0181	09/26/14 8:36	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8350	NBH14-0185	09/26/14 9:50	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8351	NBH14-0189	09/26/14 11:00	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8352	NBH14-0193	09/26/14 12:49	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8353	NBH14-0197	09/26/14 13:38	10/02/14 10:09	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8354	NBH14-0199	09/26/14 14:24	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8355	NBH14-0203	09/26/14 15:17	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8356	NBH14-0207	09/26/14 14:32	10/02/14 10:10	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8357	NBH14-0211	09/26/14 13:36	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8358	NBH14-0215	09/26/14 8:21	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8359	NBH14-0219	09/26/14 8:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8360	NBH14-0220	09/26/14 9:24	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8361	NBH14-0224	09/26/14 10:54	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8362	NBH14-0228	09/26/14 11:50	10/02/14 10:11	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8363	NBH14-0232	09/25/14 14:16	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8364	NBH14-0233	09/26/14 8:56	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8365	NBH14-0234	09/24/14 14:40	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8366	NBH14-0237	09/29/14 15:14	10/02/14 10:12	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8367	NBH14-0241	09/29/14 15:54	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8368	NBH14-0245	09/29/14 8:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8369	NBH14-0249	09/29/14 9:06	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8370	NBH14-0253	09/29/14 10:01	10/02/14 10:13	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8371	NBH14-0257	09/29/14 12:47	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8372	NBH14-0261	09/29/14 14:39	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8373	NBH14-0265	09/29/14 15:26	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8374	NBH14-0269	09/29/14 8:13	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8375	NBH14-0273	09/29/14 9:08	10/02/14 10:14	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8376	NBH14-0277	09/29/14 9:52	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8377	NBH14-0281	09/29/14 10:45	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8378	NBH14-0285	09/29/14 11:15	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8379	NBH14-0289	09/29/14 12:27	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8380	NBH14-0302	09/30/14 8:00	10/02/14 10:15	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8381	NBH14-0306	09/30/14 9:02	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8382	NBH14-0310	09/30/14 9:59	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8383	NBH14-0314	09/30/14 11:47	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8384	NBH14-0318	09/30/14 12:41	10/02/14 10:16	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8385	NBH14-0322	09/30/14 13:44	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8386	NBH14-0326	09/30/14 14:36	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8387	NBH14-0101	09/24/14 10:17	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8388	NBH14-0105	09/24/14 9:18	10/02/14 10:17	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8389	NBH14-0109	09/24/14 10:56	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8390	NBH14-0113	09/24/14 12:10	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8391	NBH14-0117	09/24/14 13:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8392	NBH14-0121	09/24/14 14:24	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8393	NBH14-0125	09/25/14 8:15	10/02/14 10:18	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8394	NBH14-0129	09/25/14 9:49	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8395	NBH14-0133	09/25/14 11:00	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8396	NBH14-0137	09/25/14 11:32	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8397	NBH14-0141	09/25/14 12:58	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8398	NBH14-0145	09/25/14 14:03	10/02/14 10:19	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8399	NBH14-0149	09/25/14 14:56	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8400	NBH14-0153	09/25/14 8:19	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8401	NBH14-0157	09/25/14 9:06	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8402	NBH14-0161	09/25/14 9:55	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Sample Receipt Form Details

Approved: Authorized

Project Number: 100043429 Client: USACE

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 01, 2014 12:00 AM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
M8403	NBH14-0165	09/25/14 12:58	10/02/14 10:20	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8404	NBH14-0169	09/25/14 14:11	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8405	NBH14-0173	09/25/14 15:14	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	
M8406	NBH14-0177	09/26/14 7:39	10/02/14 10:21	1	SED	1.2	NA	NA	NA	F0117 (NA)	BIN	32	

Total Samples: 60



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar

Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/30/2014	10:09	NBH14-0057	M0347	SED	151-14LTM	1	X						
9/30/2014	10:25	NBH14-0069	" " 48	SED	155-14LTM	1	X						
9/26/2014	8:36	NBH14-0181	49	SED	242-14LTM	1	X						
9/26/2014	9:50	NBH14-0185	50	SED	241-14LTM	1	X						
9/26/2014	11:00	NBH14-0189	51	SED	237-14LTM	1	X						
9/26/2014	12:49	NBH14-0193	52	SED	236-14LTM	1	X						
9/26/2014	13:38	NBH14-0197	53	SED	231-14LTM	1	X						
9/26/2014	14:24	NBH14-0199	54	SED	230-14LTM	1	X						
9/26/2014	15:17	NBH14-0203	55	SED	117-14LTM	1	X						
9/26/2014	14:32	NBH14-0207	56	SED	114-14LTM	1	X						
9/26/2014	13:36	NBH14-0211	57	SED	111-14LTM	1	X						
9/26/2014	8:21	NBH14-0215	58	SED	152-14LTM	1	X						
9/26/2014	8:50	NBH14-0219	59	SED	152-14LTM	1	X						
9/26/2014	9:24	NBH14-0220	60	SED	138-14LTM	1	X						
9/26/2014	10:54	NBH14-0224	61	SED	126-14LTM	1	X						
9/26/2014	11:50	NBH14-0228	62	SED	108-14LTM	1	X						
9/25/2014	14:16	NBH14-0232	63	SED	139-14LTM	1	X						
9/26/2014	8:56	NBH14-0233	64	SED	242-14LTM	1	X						
9/24/2014	14:40	NBH14-0234	65	SED	306-14LTM	1	X						
9/29/2014	15:14	NBH14-0237	66	SED	222-14LTM	1	X						

Relinquished By (name/date/time):

Matthew R. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/29/2014	15:54	NBH14-0241	M8367	SED	224-14LTM	1	X						
9/29/2014	8:06	NBH14-0245	68	SED	128-14LTM	1	X						
9/29/2014	9:06	NBH14-0249	69	SED	123-14LTM	1	X						
9/29/2014	10:01	NBH14-0253	70	SED	121-14LTM	1	X						
9/29/2014	12:47	NBH14-0257	71	SED	218-14LTM	1	X						
9/29/2014	14:39	NBH14-0261	72	SED	208-14LTM	1	X						
9/29/2014	15:26	NBH14-0265	73	SED	207-14LTM	1	X						
9/29/2014	8:13	NBH14-0269	74	SED	332-14LTM	1	X						
9/29/2014	9:08	NBH14-0273	75	SED	338-14LTM	1	X						
9/29/2014	9:52	NBH14-0277	76	SED	331-14LTM	1	X						
9/29/2014	10:45	NBH14-0281	77	SED	323-14LTM	1	X						
9/29/2014	11:15	NBH14-0285	78	SED	324-14LTM	1	X						
9/29/2014	12:27	NBH14-0289	79	SED	325-14LTM	1	X						
9/30/2014	8:00	NBH14-0302	80	SED	225-14LTM	1	X						
9/30/2104	9:02	NBH14-0306	81	SED	226-14LTM	1	X						
9/30/2014	9:59	NBH14-0310	82	SED	227-14LTM	1	X						
9/30/2014	11:47	NBH14-0314	83	SED	217-14LTM	1	X						
9/30/2014	12:41	NBH14-0318	84	SED	212-14LTM	1	X						
9/30/2014	13:44	NBH14-0322	85	SED	211-14LTM	1	X						
9/30/2014	14:36	NBH14-0326	86	SED	204-14LTM	1	X						

Relinquished By (name/date/time):

Matthew K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700



The Business of Innovation

Chain of Custody

Project Manager: Jessica Tenzar
Phone: (781) 681-5532

Ship to:
Battelle
141 Longwater Drive, Suite 202
Norwell, MA 02061

Samplers Signature: PSD & MRF

Site Contact: Matt Fitzpatrick
Mobile: (781)733-6797

Date	Time	Field ID	Lab ID(s)	Matrix	station	Analyses (Record No. of containers / Preservative)							
						PCB	4° C	TOC	4° C	Grain Size	4° C	Benthic Infauna enumeration	Room Temperature, 10% formalin
9/24/2014	10:17	NBH14-0101	M8387	SED	349-14LTM	1	X						
9/24/2014	9:18	NBH14-0105	" " 88	SED	352-14LTM	1	X						
9/24/2014	10:56	NBH14-0109	89	SED	345-14LTM	1	X						
9/24/2014	12:10	NBH14-0113	90	SED	318-14LTM	1	X						
9/24/2014	13:15	NBH14-0117	91	SED	311-14LTM	1	X						
9/24/2014	14:24	NBH14-0121	92	SED	306-14LTM	1	X						
9/25/2014	8:15	NBH14-0125	93	SED	221-14LTM	1	X						
9/25/2014	9:49	NBH14-0129	94	SED	249-14LTM	1	X						
9/25/2014	11:00	NBH14-0133	95	SED	317-14LTM	1	X						
9/25/2014	11:32	NBH14-0137	96	SED	309-14LTM	1	X						
9/25/2014	12:58	NBH14-0141	97	SED	310-14LTM	1	X						
9/25/2014	14:03	NBH14-0145	98	SED	304-14LTM	1	X						
9/25/2014	14:56	NBH14-0149	99	SED	250-14LTM	1	X						
9/25/2014	8:19	NBH14-0153	M8400	SED	105-14LTM	1	X						
9/25/2014	9:06	NBH14-0157	" " 01	SED	109-14LTM	1	X						
9/25/2014	9:55	NBH14-0161	02	SED	115-14LTM	1	X						
9/25/2014	12:58	NBH14-0165	03	SED	154-14LTM	1	X						
9/25/2014	14:11	NBH14-0169	04	SED	139-14LTM	1	X						
9/25/2014	15:14	NBH14-0173	05	SED	131-14LTM	1	X						
9/26/2014	7:39	NBH14-0177	06	SED	247-14LTM	1	X						

Relinquished By (name/date/time):

Matt K. [Signature] 10/1/14 1700

Received By(name/date/time):

[Signature] 10-1-14 1700

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Procedural Blank	Procedural Blank
Battelle ID	CD588PB-P	CD809PB-P
Sample Type	PB	PB
Collection Date	11/03/2014	11/03/2014
Extraction Date	11/03/2014	11/03/2014
Analysis Date	11/14/2014	11/15/2014
Analytical Instrument	ECD	ECD
% Moisture	1.71	1.61
% Lipid	NA	NA
Matrix	SEDIMENT	SEDIMENT
Sample Size	9.89	9.79
Size Unit-Basis	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY

Cl2(8)	0.243 U	0.245 U
Cl3(18)	0.244 U	0.246 U
Cl3(28)	0.244 U	0.246 U
Cl4(44)	0.244 U	0.246 U
Cl4(52)	0.243 U	0.245 U
Cl4(66)	0.243 U	0.245 U
Cl5(101)	0.243 U	0.245 U
Cl5(105)	0.244 U	0.246 U
Cl5(118)	0.244 U	0.246 U
Cl6(128)	0.244 U	0.246 U
Cl6(138)	0.244 U	0.246 U
Cl6(153)	0.244 U	0.246 U
Cl7(170)	0.244 U	0.246 U
Cl7(180)	0.244 U	0.246 U
Cl7(187)	0.244 U	0.246 U
Cl8(195)	0.244 U	0.246 U
Cl9(206)	0.243 U	0.245 U
Cl10(209)	0.244 U	0.246 U

Surrogate Recoveries (%)

Cl3(34)	100	101
Cl6(152)	112	97

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Laboratroy Control Sample				Laboratory Control Sample			
Battelle ID	CD589LCS-P				CD810LCS-P			
Sample Type	LCS				LCS			
Collection Date	11/03/2014				11/03/2014			
Extraction Date	11/03/2014				11/03/2014			
Analysis Date	11/14/2014				11/15/2014			
Analytical Instrument	ECD				ECD			
% Moisture	1.71				1.61			
% Lipid	NA				NA			
Matrix	SEDIMENT				SEDIMENT			
Sample Size	9.78				9.85			
Size Unit-Basis	G_DRY				G_DRY			
Units	NG/G_DRY	Target	% REC	Qual	NG/G_DRY	Target	% REC	Qual
CI2(8)	3.27	3.83	85		2.89	3.81	76	
CI3(18)	3.28	3.83	86		2.75	3.81	72	
CI3(28)	3.39	3.83	89		2.92	3.81	77	
CI4(44)	3.57	3.83	93		2.79	3.81	73	
CI4(52)	3.44	3.83	90		3.10	3.81	81	
CI4(66)	3.58	3.83	93		3.18	3.81	83	
CI5(101)	3.89	3.83	102		3.71	3.81	97	
CI5(105)	3.62	3.83	95		3.25	3.81	85	
CI5(118)	3.43	3.83	90		3.41	3.81	90	
CI6(128)	3.68	3.83	96		3.42	3.81	90	
CI6(138)	3.73	3.83	97		3.51	3.81	92	
CI6(153)	3.48	3.83	91		3.26	3.81	86	
CI7(170)	3.70	3.83	97		3.44	3.81	90	
CI7(180)	3.75	3.83	98		3.53	3.81	93	
CI7(187)	3.75	3.83	98		3.48	3.81	91	
CI8(195)	3.85	3.83	101		3.58	3.81	94	
CI9(206)	3.86	3.83	101		3.63	3.81	95	
CI10(209)	4.15	3.83	108		3.91	3.81	103	
Surrogate Recoveries (%)								
CI3(34)	98				100			
CI6(152)	96				100			

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0073	NBH14-0081	NBH14-0085	NBH14-0105
Battelle ID	M8168-P	M8170-P	M8171-P1	M8388-P
Sample Type	SA	SA	SA	SA
Collection Date	09/23/2014	09/23/2014	09/23/2014	09/24/2014
Extraction Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Analysis Date	11/15/2014	11/15/2014	11/15/2014	11/15/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	3.76	0.51	2.02	0.55
% Lipid	NA	NA	NA	NA
Matrix	SED	SED	SED	SED
Sample Size	9.62	10.00	9.77	10.01
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Cl2(8)	0.462	0.253 U	0.629	0.476
Cl3(18)	0.136 J	0.254 U	0.260 U	0.254 U
Cl3(28)	1.43	0.188 J	2.50	1.61
Cl4(44)	0.436	0.254 U	0.459	0.355
Cl4(52)	1.58 p	0.437 p	1.44 p	1.04
Cl4(66)	1.72	0.152 J	1.66	1.20
Cl5(101)	1.83	0.461	1.76	1.51
Cl5(105)	0.800	0.0754 J	0.822	0.812
Cl5(118)	3.56	0.622	3.50	3.47
Cl6(128)	0.750	0.113 pJ	0.649	0.738
Cl6(138)	2.62	0.548	2.47	2.68
Cl6(153)	2.70	0.368	2.19	2.83
Cl7(170)	0.265	0.254 U	0.166 J	0.173 J
Cl7(180)	0.307	0.254 U	0.239 J	0.281
Cl7(187)	0.294	0.254 U	0.398 p	0.611 p
Cl8(195)	0.264 U	0.254 U	0.260 U	0.254 U
Cl9(206)	0.263 U	0.253 U	0.259 U	0.252 U
Cl10(209)	0.264 U	0.254 U	0.260 U	0.254 U

Surrogate Recoveries (%)

Cl3(34)	101	103	87	95
Cl6(152)	90	93	89	86

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0073	NBH14-0073	
Battelle ID	M8168-P	M8168DUP-P	
Sample Type	SA	QADU	
Collection Date	09/23/2014	09/23/2014	
Extraction Date	11/03/2014	11/03/2014	
Analysis Date	11/15/2014	11/15/2014	
Analytical Instrument	ECD	ECD	
% Moisture	3.76	1.05	
% Lipid	NA	NA	
Matrix	SED	SED	
Sample Size	9.62	10.00	
Size Unit-Basis	G_DRY	G_DRY	
Units	NG/G_DRY	NG/G_DRY	RPD Qual

Cl2(8)	0.462	0.432	6.7
Cl3(18)	0.136 J	0.254 U	
Cl3(28)	1.43	1.44	0.7
Cl4(44)	0.436	0.414	5.2
Cl4(52)	1.58 p	1.50	5.2
Cl4(66)	1.72	1.87	8.4
Cl5(101)	1.83	1.76	3.9
Cl5(105)	0.800	0.888	10.4
Cl5(118)	3.56	3.73	4.7
Cl6(128)	0.750	0.741	1.2
Cl6(138)	2.62	2.76	5.2
Cl6(153)	2.70	2.90	7.1
Cl7(170)	0.265	0.239 J	10.3
Cl7(180)	0.307	0.308	0.3
Cl7(187)	0.294	0.350	17.4
Cl8(195)	0.264 U	0.254 U	
Cl9(206)	0.263 U	0.253 U	
Cl10(209)	0.264 U	0.254 U	

Surrogate Recoveries (%)

Cl3(34)	101	100	
Cl6(152)	90	92	

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	NBH14-0081	NBH14-0081			
Battelle ID	M8170-P	M8170MS-P			
Sample Type	SA	MS			
Collection Date	09/23/2014	09/23/2014			
Extraction Date	11/03/2014	11/03/2014			
Analysis Date	11/15/2014	11/15/2014			
Analytical Instrument	ECD	ECD			
% Moisture	0.51	0.51			
% Lipid	NA	NA			
Matrix	SED	SED			
Sample Size	10.00	5.13			
Size Unit-Basis	G_DRY	G_DRY			
Units	NG/G_DRY	NG/G_DRY	Target	% REC	Qual

Cl2(8)	0.253 U	9.78	12.18	80
Cl3(18)	0.254 U	10.1	12.18	83
Cl3(28)	0.188 J	9.39	12.18	76
Cl4(44)	0.254 U	12.9	12.18	106
Cl4(52)	0.437 p	11.0	12.18	87
Cl4(66)	0.152 J	10.3	12.18	83
Cl5(101)	0.461	9.68	12.18	76
Cl5(105)	0.0754 J	11.2	12.18	91
Cl5(118)	0.622	11.1	12.18	86
Cl6(128)	0.113 pJ	11.5	12.18	93
Cl6(138)	0.548	11.8	12.18	92
Cl6(153)	0.368	11.1	12.18	88
Cl7(170)	0.254 U	11.7	12.18	96
Cl7(180)	0.254 U	11.9	12.18	98
Cl7(187)	0.254 U	12.3	12.18	101
Cl8(195)	0.254 U	12.0	12.18	99
Cl9(206)	0.253 U	11.8	12.18	97
Cl10(209)	0.254 U	12.6	12.18	103

Surrogate Recoveries (%)

Cl3(34)	103	98
Cl6(152)	93	95

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID NBH14-0081

Battelle ID M8170MSD-P

Sample Type MSD

Collection Date 09/23/2014

Extraction Date 11/03/2014

Analysis Date 11/15/2014

Analytical Instrument ECD

% Moisture 0.51

% Lipid NA

Matrix SED

Sample Size 5.18

Size Unit-Basis G_DRY

Units NG/G_DRY **Target % REC Qual RPD Qual**

		Target	% REC	Qual	RPD	Qual
CI2(8)	9.57	12.07	79		1.3	
CI3(18)	9.46	12.07	78		6.2	
CI3(28)	9.56	12.07	78		2.6	
CI4(44)	9.60	12.07	80		28.0	
CI4(52)	10.4	12.07	83		4.7	
CI4(66)	10.5	12.07	86		3.6	
CI5(101)	9.56	12.07	75		1.3	
CI5(105)	10.8	12.07	89		2.2	
CI5(118)	10.7	12.07	83		3.6	
CI6(128)	12.0	12.07	98		5.2	
CI6(138)	12.4	12.07	98		6.3	
CI6(153)	10.6	12.07	85		3.5	
CI7(170)	11.4	12.07	94		2.1	
CI7(180)	11.4	12.07	94		4.2	
CI7(187)	11.2	12.07	93		8.2	
CI8(195)	11.8	12.07	98		1.0	
CI9(206)	12.0	12.07	99		2.0	
CI10(209)	12.8	12.07	106		2.9	

Surrogate Recoveries (%)

CI3(34)	108
CI6(152)	104

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Method Detection Limits	Method Detection Limits	Method Detection Limits	Method Detection Limits
Battelle ID	CD590MDL-P	CD591MDL-P	CD592MDL-P	CD593MDL-P
Sample Type	MDL	MDL	MDL	MDL
Collection Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Extraction Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Analysis Date	11/14/2014	11/14/2014	11/14/2014	11/14/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	16.89	13.57	14.10	12.79
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	8.37	9.02	9.34	9.02
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

CI2(8)	0.711	0.662	0.621	0.618
CI3(18)	0.512	0.532	0.418	0.430
CI3(28)	0.783	0.726	0.668	0.737
CI4(44)	0.739	0.620	0.784	0.687
CI4(52)	1.09 p	0.888 p	0.845 p	0.913 p
CI4(66)	0.846	0.782	0.922	0.728
CI5(101)	1.28	1.09	1.18	1.30
CI5(105)	0.701	0.640	0.816	0.698
CI5(118)	0.785	0.779	0.727	0.782
CI6(128)	0.735	0.655	0.692	0.735
CI6(138)	0.928	0.762	0.725	0.712
CI6(153)	0.724	0.766	0.642	0.633
CI7(170)	0.775	0.726	0.756	0.756
CI7(180)	0.786	0.725	0.737	0.771
CI7(187)	0.790	0.736	0.739	0.744
CI8(195)	0.828	0.749	0.813	0.815
CI9(206)	0.860	0.744	0.819	0.829
CI10(209)	0.919	0.807	0.908	0.901

Surrogate Recoveries (%)

CI3(34)	92	95	86	84
CI6(152)	104	102	87	90

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Method Detection Limits	Method Detection Limits	Method Detection Limits	Method Detection Limits
Battelle ID	CD594MDL-P	CD595MDL-P	CD596MDL-P	CD597MDL-P
Sample Type	MDL	MDL	MDL	MDL
Collection Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Extraction Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Analysis Date	11/14/2014	11/14/2014	11/14/2014	11/15/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	17.65	15.42	14.98	16.36
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	8.28	8.47	8.69	8.37
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

CI2(8)	0.729	0.667	0.717	0.725
CI3(18)	0.419	0.429	0.457	0.481
CI3(28)	0.730	0.748	0.729	0.783 p
CI4(44)	0.688	0.665	0.736	0.712
CI4(52)	1.13 p	0.870 p	1.03 p	1.12 p
CI4(66)	0.811	0.768	0.793	0.862
CI5(101)	1.28	1.19	1.20	1.22
CI5(105)	0.779	0.732	0.758	0.738
CI5(118)	0.910	0.971	0.921	0.966
CI6(128)	0.830	0.812	0.762	0.822
CI6(138)	0.856	0.826	0.752	0.839
CI6(153)	0.809	0.912	0.690	0.650
CI7(170)	0.925	0.903	0.804	0.835
CI7(180)	0.905	0.886	0.822	0.827
CI7(187)	0.894	0.881	0.783	0.898
CI8(195)	0.984	0.954	0.879	0.929
CI9(206)	1.01	0.981	0.907	0.950
CI10(209)	1.09	1.07	0.990	1.03

Surrogate Recoveries (%)

CI3(34)	92	99	92	95
CI6(152)	92	89	94	97

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Average MDL Weight 8.70 G_DRY

<i>MDL Analytes</i>	Average	Standard Deviation	%RSD	MDL (ng/g)	MDL (ng)
CI2(8)	0.681	0.046	6.8	0.138	1.20
CI3(18)	0.460	0.044	9.6	0.132	1.15
CI3(28)	0.738	0.037	5.0	0.111	0.966
CI4(44)	0.704	0.050	7.1	0.150	1.30
CI4(52)	0.986	0.119	12.1	0.357	3.11
CI4(66)	0.814	0.061	7.5	0.183	1.59
CI5(101)	1.218	0.069	5.7	0.207	1.80
CI5(105)	0.733	0.054	7.4	0.162	1.41
CI5(118)	0.855	0.097	11.3	0.291	2.53
CI6(128)	0.755	0.063	8.3	0.189	1.64
CI6(138)	0.800	0.074	9.3	0.222	1.93
CI6(153)	0.728	0.097	13.3	0.291	2.53
CI7(170)	0.810	0.072	8.9	0.216	1.88
CI7(180)	0.807	0.065	8.1	0.195	1.70
CI7(187)	0.808	0.072	8.9	0.216	1.88
CI8(195)	0.869	0.081	9.3	0.243	2.11
CI9(206)	0.888	0.091	10.2	0.273	2.38
CI10(209)	0.964	0.097	10.1	0.291	2.53

Surrogate Recoveries (%)

CI3(34)
 CI6(152)

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Method Detection Limits	Method Detection Limits	Method Detection Limits	Method Detection Limits
Battelle ID	CD590MDL-P	CD591MDL-P	CD592MDL-P	CD593MDL-P
Sample Type	MDL	MDL	MDL	MDL
Collection Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Extraction Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Analysis Date	11/14/2014	11/14/2014	11/14/2014	11/14/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	16.89	13.57	14.10	12.79
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	8.37	9.02	9.34	9.02
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Method Detection Limits	Method Detection Limits	Method Detection Limits	Method Detection Limits
Battelle ID	CD594MDL-P	CD595MDL-P	CD596MDL-P	CD597MDL-P
Sample Type	MDL	MDL	MDL	MDL
Collection Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Extraction Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Analysis Date	11/14/2014	11/14/2014	11/14/2014	11/15/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	17.65	15.42	14.98	16.36
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	8.28	8.47	8.69	8.37
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

<i>MDL Analytes</i>	Average MDL Weight			G_DRY	
	Average	Standard Deviation	%RSD	MDL (ng/g)	MDL (ng)

Battelle

The Business of Innovation

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Method Detection Limits	Method Detection Limits	Method Detection Limits	Method Detection Limits
Battelle ID	CD590MDL-P	CD591MDL-P	CD592MDL-P	CD593MDL-P
Sample Type	MDL	MDL	MDL	MDL
Collection Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Extraction Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Analysis Date	11/14/2014	11/14/2014	11/14/2014	11/14/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	16.89	13.57	14.10	12.79
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	8.37	9.02	9.34	9.02
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Target Values

Cl2(8)	0.90	0.83	0.80	0.83
Cl3(18)	0.90	0.83	0.80	0.83
Cl3(28)	0.90	0.83	0.80	0.83
Cl4(44)	0.90	0.83	0.80	0.83
Cl4(52)	0.90	0.83	0.80	0.83
Cl4(66)	0.90	0.83	0.80	0.83
Cl5(101)	0.90	0.83	0.80	0.83
Cl5(105)	0.90	0.83	0.80	0.83
Cl5(118)	0.90	0.83	0.80	0.83
Cl6(128)	0.90	0.83	0.80	0.83
Cl6(138)	0.90	0.83	0.80	0.83
Cl6(153)	0.90	0.83	0.80	0.83
Cl7(170)	0.90	0.83	0.80	0.83
Cl7(180)	0.90	0.83	0.80	0.83
Cl7(187)	0.90	0.83	0.80	0.83
Cl8(195)	0.90	0.83	0.80	0.83
Cl9(206)	0.90	0.83	0.80	0.83
Cl10(209)	0.90	0.83	0.80	0.83

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

Client ID	Method Detection Limits	Method Detection Limits	Method Detection Limits	Method Detection Limits
Battelle ID	CD594MDL-P	CD595MDL-P	CD596MDL-P	CD597MDL-P
Sample Type	MDL	MDL	MDL	MDL
Collection Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Extraction Date	11/03/2014	11/03/2014	11/03/2014	11/03/2014
Analysis Date	11/14/2014	11/14/2014	11/14/2014	11/15/2014
Analytical Instrument	ECD	ECD	ECD	ECD
% Moisture	17.65	15.42	14.98	16.36
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	8.28	8.47	8.69	8.37
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	NG/G_DRY	NG/G_DRY	NG/G_DRY	NG/G_DRY

Target Values

CI2(8)	0.91	0.89	0.86	0.90
CI3(18)	0.91	0.89	0.86	0.90
CI3(28)	0.91	0.89	0.86	0.90
CI4(44)	0.91	0.89	0.86	0.90
CI4(52)	0.91	0.89	0.86	0.90
CI4(66)	0.91	0.89	0.86	0.90
CI5(101)	0.91	0.89	0.86	0.90
CI5(105)	0.91	0.89	0.86	0.90
CI5(118)	0.91	0.89	0.86	0.90
CI6(128)	0.91	0.89	0.86	0.90
CI6(138)	0.91	0.89	0.86	0.90
CI6(153)	0.91	0.89	0.86	0.90
CI7(170)	0.91	0.89	0.86	0.90
CI7(180)	0.91	0.89	0.86	0.90
CI7(187)	0.91	0.89	0.86	0.90
CI8(195)	0.91	0.89	0.86	0.90
CI9(206)	0.91	0.89	0.86	0.90
CI10(209)	0.91	0.89	0.86	0.90

Project Client: USACE/NAE
Project Name: USACE-NAE New Bedford Harbor LTM Study
Project Number: 100053747

<i>MDL Analytes</i>	Average MDL Weight			G_DRY	
	Average	Standard Deviation	%RSD	MDL (ng/g)	MDL (ng)
—					
■					
■					
■					
■					
■					
■					
■					
■					
■					

Glossary of Data Qualifiers

Flag: Application:

- B Analyte concentration found in the sample at a concentration <5x the level found in the procedural blank.
- D Dilution Run. Initial run outside linear range of instrument.
- E Estimate, result is greater than the highest concentration level in the calibration.
- H Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
- J Analyte detected below the sample-specific Reporting Limit (RL).
- m Confirmation column manually over-ridden by analyst, dual column quantitative analysis only.
- ME Significant Matrix Interference - Estimated value.
- MI Significant Matrix Interference - value could not be determined or estimated.
- n Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets the contingency criteria.
- N Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
- NA Not applicable
- p Dual column value exceeds RPD criteria, dual column quantitative analysis only.
- T Holding Time (HT) exceeded.
- U Analyte not detected at 3:1 signal:noise ratio.

**QA/QC Summary
Batch 14-0497**

Project:	USACE/NAE – New Bedford Harbor Long Term Monitoring
Parameters:	PCB Congeners (NOAA 18)
Laboratory:	Battelle, Norwell, MA
Matrix:	Sediment
Data Set:	DP-14-0679
Analytical SOP:	5-128
Method Reference:	EPA Method 8081B and 8082A (modified)

Sample Custody

Collection Date	Receipt Date	Temp (°C)
9/22-30/2014	9/26, 10/1/2014	1.0, 1.2

Corrective Actions	NA
Sample Storage	The sediment samples were stored frozen until extraction.
Related samples	NA

METHOD SUMMARIES

Sample Preparation	Prior to sediment extraction, an aliquot of approximately 30 g of wet sediment was placed on clean, labeled aluminum foil, covered and placed in a laboratory laminar flow hood to dry the sample to <50% moisture. Aliquots of these dried samples were weighed into sample extraction vessels for sample extraction. Approximately 5 to 10 g sediment was weighed out for extraction (sample weight based on historical analysis results). The sediments were spiked with surrogates, extracted three times with methylene chloride, and the extracts combined, dried over anhydrous sodium sulfate, and concentrated. The concentrated extracts were processed through Florisil to isolate the PCBs, followed by activated copper treatment to remove sulfur. The cleaned extract was concentrated and fortified with internal standard (IS) compounds prior to analysis by GC/ECD. NOTE: This batch includes the project-specific MDL study as well as field samples.
Prep Comments	CD809PB and CD810LCS: Additional QC samples added to batch on 11/3/2014 because project manager was consulted and decided that another PB and LCS were needed for authentic samples due to different spike amounts.

Analysis	PCBs were analyzed by gas chromatography electron capture detection (GC/ECD). An initial calibration consisting of target analytes was analyzed prior to sample analysis to demonstrate the linear range. Calibration verification was performed at the beginning and end of each 24-hr period in which samples were analyzed. Concentrations of target compounds were calculated versus internal standards using the average response factors (RF) generated from the initial calibration.
Analysis Comments	<ul style="list-style-type: none"> Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed

**QA/QC Summary
Batch 14-0497**

	<p>inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.</p> <ul style="list-style-type: none"> • In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency. • In cases where p qualifiers are present, integrations and data were reviewed. • Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak. Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
--	---

Holding Times	Extraction Date(s)	Analysis Date(s)
	11/3-4/2014	11/14-15/2014

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
Blank value <5x ssMDL	No exceedances noted.
Samples >5X PB	No comments.

Laboratory Control Spike	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
70-130% recovery	No exceedances noted.
	No comments.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	A MS/MSD pair was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy. The relative percent difference (RPD) was calculated to measure data quality in terms of precision.
70-130% recovery	No exceedances noted
<30% RPD	No comments.
Spike must be >5x bkgd conc.	

**QA/QC Summary
Batch 14-0497**

Sample Duplicate (DUP)	A laboratory duplicate of one sediment was prepared with the analytical batch. The relative percent difference (RPD) was calculated to measure data quality in terms of precision. NOTE: This QC sample was inadvertently included in the sample batch instead of the requested SRM.
<30% RPD	No exceedances noted.
Conc must be >10X MDL	No comments.

Surrogate Recovery	Surrogate compounds were added prior to extraction. The surrogate recoveries are calculated to measure extraction efficiency.
40-120% recovery	No exceedances noted. No comments.

Initial Calibration (ICAL)	The GC/ECD was calibrated with six-level quadratic calibration curve for all compounds using an instrument response factor (RF).
$R^2 \geq 0.995$	No exceedances noted. No comments.

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
$\leq 20\%$ difference individual and mean	No exceedances noted. No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run every 24 hours to ensure that initial calibration is still valid.
$\leq 20\%$ difference individual; $\leq 15\%$ difference mean	No exceedances noted. No comments.

Report Project Data Set MOOs

Project Title: USACE/NAE - New Bedford Harbor LTM

Data Set Number: DP-14-0679

Project Number: 100053747

Prep Batch Number: 14-0497

Test Code (Matrix Type): Master_128(S)

QC_PARAMETER:	Exceed:	Contg.:	JUSTIFICATION:
Procedural Blank	0	0	None
PB Measurement Quality Objective	0	0	None
Laboratory Control Sample	0	0	None
Matrix Spike Recovery	0	0	None
Matrix Spike/Spike Duplicate Precision	0	0	None
Standard Reference Material Accuracy	NA	NA	NA
Analytical Duplicate Precision	0	0	None
Analytical Triplicate Precision	NA	NA	NA
Surrogate Compound Recovery	0	0	None
Control Oil	NA	NA	NA
Instrument Calibration	0	0	None
Independent Calibration Check Solution	0	0	None
Continuing Calibration Verification	0	0	None

BATTELLE - DUXBURY OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title: USACE/NAE - New Bedford Harbor LTM **Data Set Number:** DP-14-0679
Project Number: 100053747 **Prep Batch Number:** 14-0497
Entered By: Richard Restucci Jr **Entered On:** 11/25/2014
Test Code (Matrix Type): Master_128(S)

Integrations by Rich Restucci.
RR 11/25/14

Method MM0417C is a 6pt quadratic method used to quant all samples. After this batch was quantified, the analyst noticed that PCB 101 was identified incorrectly on the secondary (confirmation) column. A new method was created for PCB 101 only, and the samples re-quantified with the correctly identified peak.

Method MM0417F is a 6pt quadratic method used to quant all undiluted samples and relevant dilutions for PCB 101.
RR 12/8/14

Method MM0417C utilizes the quant sheets from MM0417B.
RR 11/25/14

Some congener concentrations were anomalous with surrounding analyte concentrations, or obvious chromatographic interferences were present, likely non-target congeners. In cases where an inflection point was detected in the affected peak, a vertical integration was performed inside the peak to better represent the detected congener. Specific peaks where these interferences present themselves are PCBs 96,161, 28, 66, and 101. As these interferences are not matrix derived, but stem from additional, non-target congeners, the analytes are not ME qualified. A graphical representation of PCB 66 in sample M8402-P-D(5) is located in the unused data section for reference.
RR 11/25/14

In cases where a congener exhibits dilution level concentrations on one column, but not the other, both columns are reported from dilution for consistency.
RR 11/25/14

In cases where p qualifiers are present, integrations and data were reviewed.
RR 11/25/14

Task Leader Approval:  Kevin McNerney
2014.12.08 14:08:23 -05'00'

Supervisor Approval:

PM Approval:  Carole McCarthy
2014.12.09 07:43:29 -05'00'

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0497

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl5(96)	2021371
SM0417.S	M7207.D	IE05	CS	Cl5(96)	2103011
SM0417.S	M7208.D	IE06	CS	Cl5(96)	2225995
SM0417.S	M7209.D	IE07	CS	Cl5(96)	2400478
SM0417.S	M7210.D	IE08	CS	Cl5(96)	2523572
SM0417.S	M7212.D	IE10	CS	Cl5(96)	2857033
				L3	2225995
				(+)	4451990
				(-)	1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl5(96)	2508888	
SM0424.S	M7581.D	IE07	CCV	Cl5(96)	2436917	
SM0424.S	M7582.D	CD588PB-P(0)	PB	Cl5(96)	2164245	
SM0424.S	M7583.D	CD589LCS-P(0)	LCS	Cl5(96)	2270924	
SM0424.S	M7584.D	CD590MDL-P(0)	MDL	Cl5(96)	2530448	
SM0424.S	M7585.D	CD591MDL-P(0)	MDL	Cl5(96)	2263263	
SM0424.S	M7586.D	CD592MDL-P(0)	MDL	Cl5(96)	2569124	
SM0424.S	M7587.D	CD593MDL-P(0)	MDL	Cl5(96)	2439258	
SM0424.S	M7588.D	CD594MDL-P(0)	MDL	Cl5(96)	2425519	
SM0424.S	M7589.D	CD595MDL-P(0)	MDL	Cl5(96)	2687310	
SM0424.S	M7590.D	CD596MDL-P(0)	MDL	Cl5(96)	2609586	
SM0424.S	M7591.D	CD597MDL-P(0)	MDL	Cl5(96)	2502889	
SM0424.S	M7592.D	IE08	CCV	Cl5(96)	3196533	
SM0424.S	M7593.D	CD809PB-P(0)	PB	Cl5(96)	3101992	
SM0424.S	M7594.D	CD810LCS-P(0)	LCS	Cl5(96)	3035862	
SM0424.S	M7595.D	M8168-P(2)	SA	Cl5(96)	2850968	
SM0424.S	M7596.D	M8168DUP-P(2)	QADU	Cl5(96)	3068867	
SM0424.S	M7597.D	M8170-P(2)	SA	Cl5(96)	3230472	
SM0424.S	M7598.D	M8170MS-P(0)	MS	Cl5(96)	2970125	
SM0424.S	M7599.D	M8170MSD-P(0)	MSD	Cl5(96)	3392393	
SM0424.S	M7600.D	M8171-P1(2)	SA	Cl5(96)	3402257	
SM0424.S	M7601.D	M8388-P(2)	SA	Cl5(96)	3424533	
SM0424.S	M7603.D	IE07	CCV	Cl5(96)	3483421	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0497

METHOD: MM0417C.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	4304957
SM0417.S	M7207.D	IE05	CS	Cl6(161)	4562564
SM0417.S	M7208.D	IE06	CS	Cl6(161)	4815577
SM0417.S	M7209.D	IE07	CS	Cl6(161)	5366502
SM0417.S	M7210.D	IE08	CS	Cl6(161)	5424577
SM0417.S	M7212.D	IE10	CS	Cl6(161)	5785136
				L3	4815577
				(+)	9631155
				(-)	2407789

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	5353469	
SM0424.S	M7581.D	IE07	CCV	Cl6(161)	5635758	
SM0424.S	M7582.D	CD588PB-P(0)	PB	Cl6(161)	4836853	
SM0424.S	M7583.D	CD589LCS-P(0)	LCS	Cl6(161)	5378808	
SM0424.S	M7584.D	CD590MDL-P(0)	MDL	Cl6(161)	6206066	
SM0424.S	M7585.D	CD591MDL-P(0)	MDL	Cl6(161)	5152353	
SM0424.S	M7586.D	CD592MDL-P(0)	MDL	Cl6(161)	6000805	
SM0424.S	M7587.D	CD593MDL-P(0)	MDL	Cl6(161)	5663145	
SM0424.S	M7588.D	CD594MDL-P(0)	MDL	Cl6(161)	5801937	
SM0424.S	M7589.D	CD595MDL-P(0)	MDL	Cl6(161)	6191104	
SM0424.S	M7590.D	CD596MDL-P(0)	MDL	Cl6(161)	5835931	
SM0424.S	M7591.D	CD597MDL-P(0)	MDL	Cl6(161)	5705689	
SM0424.S	M7592.D	IE08	CCV	Cl6(161)	7127913	
SM0424.S	M7593.D	CD809PB-P(0)	PB	Cl6(161)	6288454	
SM0424.S	M7594.D	CD810LCS-P(0)	LCS	Cl6(161)	5933033	
SM0424.S	M7595.D	M8168-P(2)	SA	Cl6(161)	5597103	
SM0424.S	M7596.D	M8168DUP-P(2)	QADU	Cl6(161)	6334278	
SM0424.S	M7597.D	M8170-P(2)	SA	Cl6(161)	6779955	
SM0424.S	M7598.D	M8170MS-P(0)	MS	Cl6(161)	5741188	
SM0424.S	M7599.D	M8170MSD-P(0)	MSD	Cl6(161)	6732509	
SM0424.S	M7600.D	M8171-P1(2)	SA	Cl6(161)	6882455	
SM0424.S	M7601.D	M8388-P(2)	SA	Cl6(161)	6773303	
SM0424.S	M7603.D	IE07	CCV	Cl6(161)	7856766	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0497

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12822282
SM0417.S	M7207.D	IE05	CS	CI5(96)	12416297
SM0417.S	M7208.D	IE06	CS	CI5(96)	13716870
SM0417.S	M7209.D	IE07	CS	CI5(96)	14992953
SM0417.S	M7210.D	IE08	CS	CI5(96)	15446142
SM0417.S	M7212.D	IE10	CS	CI5(96)	15534608
				L3	13716870
				(+)	27433739
				(-)	6858435

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13969685	
SM0424.S	M7581.D	IE07	CCV	CI5(96)	15830647	
SM0424.S	M7582.D	CD588PB-P(0)	PB	CI5(96)	14681353	
SM0424.S	M7583.D	CD589LCS-P(0)	LCS	CI5(96)	15162087	
SM0424.S	M7584.D	CD590MDL-P(0)	MDL	CI5(96)	15353413	
SM0424.S	M7585.D	CD591MDL-P(0)	MDL	CI5(96)	14964213	
SM0424.S	M7586.D	CD592MDL-P(0)	MDL	CI5(96)	15234569	
SM0424.S	M7587.D	CD593MDL-P(0)	MDL	CI5(96)	15372670	
SM0424.S	M7588.D	CD594MDL-P(0)	MDL	CI5(96)	14204486	
SM0424.S	M7589.D	CD595MDL-P(0)	MDL	CI5(96)	14183601	
SM0424.S	M7590.D	CD596MDL-P(0)	MDL	CI5(96)	16036666	
SM0424.S	M7591.D	CD597MDL-P(0)	MDL	CI5(96)	14887066	
SM0424.S	M7592.D	IE08	CCV	CI5(96)	18485755	
SM0424.S	M7593.D	CD809PB-P(0)	PB	CI5(96)	15650758	
SM0424.S	M7594.D	CD810LCS-P(0)	LCS	CI5(96)	16224367	
SM0424.S	M7595.D	M8168-P(2)	SA	CI5(96)	14306291	
SM0424.S	M7596.D	M8168DUP-P(2)	QADU	CI5(96)	15728055	
SM0424.S	M7597.D	M8170-P(2)	SA	CI5(96)	16143311	
SM0424.S	M7598.D	M8170MS-P(0)	MS	CI5(96)	15108158	
SM0424.S	M7599.D	M8170MSD-P(0)	MSD	CI5(96)	15484225	
SM0424.S	M7600.D	M8171-P1(2)	SA	CI5(96)	16555565	
SM0424.S	M7601.D	M8388-P(2)	SA	CI5(96)	16614511	
SM0424.S	M7603.D	IE07	CCV	CI5(96)	19099905	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0497

METHOD: MM0417C.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	Cl6(161)	28199596
SM0417.S	M7207.D	IE05	CS	Cl6(161)	27129752
SM0417.S	M7208.D	IE06	CS	Cl6(161)	29503850
SM0417.S	M7209.D	IE07	CS	Cl6(161)	34497986
SM0417.S	M7210.D	IE08	CS	Cl6(161)	34872167
SM0417.S	M7212.D	IE10	CS	Cl6(161)	28894537
				L3	29503850
				(+)	59007699
				(-)	14751925

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	Cl6(161)	30447371	
SM0424.S	M7581.D	IE07	CCV	Cl6(161)	36312008	
SM0424.S	M7582.D	CD588PB-P(0)	PB	Cl6(161)	34857967	
SM0424.S	M7583.D	CD589LCS-P(0)	LCS	Cl6(161)	37142940	
SM0424.S	M7584.D	CD590MDL-P(0)	MDL	Cl6(161)	37648654	
SM0424.S	M7585.D	CD591MDL-P(0)	MDL	Cl6(161)	36919109	
SM0424.S	M7586.D	CD592MDL-P(0)	MDL	Cl6(161)	38036624	
SM0424.S	M7587.D	CD593MDL-P(0)	MDL	Cl6(161)	37000796	
SM0424.S	M7588.D	CD594MDL-P(0)	MDL	Cl6(161)	34469320	
SM0424.S	M7589.D	CD595MDL-P(0)	MDL	Cl6(161)	36717472	
SM0424.S	M7590.D	CD596MDL-P(0)	MDL	Cl6(161)	38071256	
SM0424.S	M7591.D	CD597MDL-P(0)	MDL	Cl6(161)	35466959	
SM0424.S	M7592.D	IE08	CCV	Cl6(161)	41716767	
SM0424.S	M7593.D	CD809PB-P(0)	PB	Cl6(161)	35927334	
SM0424.S	M7594.D	CD810LCS-P(0)	LCS	Cl6(161)	37774570	
SM0424.S	M7595.D	M8168-P(2)	SA	Cl6(161)	33011727	
SM0424.S	M7596.D	M8168DUP-P(2)	QADU	Cl6(161)	36206660	
SM0424.S	M7597.D	M8170-P(2)	SA	Cl6(161)	39733010	
SM0424.S	M7598.D	M8170MS-P(0)	MS	Cl6(161)	34521468	
SM0424.S	M7599.D	M8170MSD-P(0)	MSD	Cl6(161)	37347352	
SM0424.S	M7600.D	M8171-P1(2)	SA	Cl6(161)	38457295	
SM0424.S	M7601.D	M8388-P(2)	SA	Cl6(161)	38220879	
SM0424.S	M7603.D	IE07	CCV	Cl6(161)	46749872	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0497

METHOD: MM0417F.M

SIGNAL: 1

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	2038180
SM0417.S	M7207.D	IE05	CS	CI5(96)	2103011
SM0417.S	M7208.D	IE06	CS	CI5(96)	2225995
SM0417.S	M7209.D	IE07	CS	CI5(96)	2400478
SM0417.S	M7210.D	IE08	CS	CI5(96)	2523572
SM0417.S	M7212.D	IE10	CS	CI5(96)	2539311
				L3	2225995
				(+)	4451990
				(-)	1112997

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	2508888	
SM0424.S	M7581.D	IE07	CCV	CI5(96)	2438735	
SM0424.S	M7582.D	CD588PB-P(0)	PB	CI5(96)	2164245	
SM0424.S	M7583.D	CD589LCS-P(0)	LCS	CI5(96)	2270924	
SM0424.S	M7584.D	CD590MDL-P(0)	MDL	CI5(96)	2530448	
SM0424.S	M7585.D	CD591MDL-P(0)	MDL	CI5(96)	2263263	
SM0424.S	M7586.D	CD592MDL-P(0)	MDL	CI5(96)	2631530	
SM0424.S	M7587.D	CD593MDL-P(0)	MDL	CI5(96)	2439258	
SM0424.S	M7588.D	CD594MDL-P(0)	MDL	CI5(96)	2654343	
SM0424.S	M7589.D	CD595MDL-P(0)	MDL	CI5(96)	2634253	
SM0424.S	M7590.D	CD596MDL-P(0)	MDL	CI5(96)	2609586	
SM0424.S	M7591.D	CD597MDL-P(0)	MDL	CI5(96)	2507219	
SM0424.S	M7592.D	IE08	CCV	CI5(96)	3196533	
SM0424.S	M7593.D	CD809PB-P(0)	PB	CI5(96)	3101992	
SM0424.S	M7594.D	CD810LCS-P(0)	LCS	CI5(96)	3035862	
SM0424.S	M7595.D	M8168-P(2)	SA	CI5(96)	2850968	
SM0424.S	M7596.D	M8168DUP-P(2)	QADU	CI5(96)	3155710	
SM0424.S	M7597.D	M8170-P(2)	SA	CI5(96)	3230472	
SM0424.S	M7598.D	M8170MS-P(0)	MS	CI5(96)	2970125	
SM0424.S	M7599.D	M8170MSD-P(0)	MSD	CI5(96)	3392393	
SM0424.S	M7600.D	M8171-P1(2)	SA	CI5(96)	3568658	
SM0424.S	M7601.D	M8388-P(2)	SA	CI5(96)	3645171	
SM0424.S	M7603.D	IE07	CCV	CI5(96)	3483421	

Internal Standard Area Report

PROJECT NAME: USACE/NAE - New Bedford Harbor LTM Study

PROJECT NO: 100053747

BATCH: 14-0497

METHOD: MM0417F.M

SIGNAL: 2

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:
SM0417.S	M7205.D	IE03	CS	CI5(96)	12872032
SM0417.S	M7207.D	IE05	CS	CI5(96)	13386960
SM0417.S	M7208.D	IE06	CS	CI5(96)	13612237
SM0417.S	M7209.D	IE07	CS	CI5(96)	14869473
SM0417.S	M7210.D	IE08	CS	CI5(96)	15494530
SM0417.S	M7212.D	IE10	CS	CI5(96)	15194166
				L3	13612237
				(+)	27224474
				(-)	6806118

SEQUENCE:	FILE:	LEVEL:	TYPE:	PEAK:	AREA:	FLAG:
SM0417.S	M7213.D	HY06 ICC	ICC	CI5(96)	13936712	
SM0424.S	M7581.D	IE07	CCV	CI5(96)	15811867	
SM0424.S	M7582.D	CD588PB-P(0)	PB	CI5(96)	14712577	
SM0424.S	M7583.D	CD589LCS-P(0)	LCS	CI5(96)	15266855	
SM0424.S	M7584.D	CD590MDL-P(0)	MDL	CI5(96)	15423635	
SM0424.S	M7585.D	CD591MDL-P(0)	MDL	CI5(96)	15016002	
SM0424.S	M7586.D	CD592MDL-P(0)	MDL	CI5(96)	15278184	
SM0424.S	M7587.D	CD593MDL-P(0)	MDL	CI5(96)	15384670	
SM0424.S	M7588.D	CD594MDL-P(0)	MDL	CI5(96)	14296280	
SM0424.S	M7589.D	CD595MDL-P(0)	MDL	CI5(96)	14387298	
SM0424.S	M7590.D	CD596MDL-P(0)	MDL	CI5(96)	15921435	
SM0424.S	M7591.D	CD597MDL-P(0)	MDL	CI5(96)	14980909	
SM0424.S	M7592.D	IE08	CCV	CI5(96)	18155079	
SM0424.S	M7593.D	CD809PB-P(0)	PB	CI5(96)	15628154	
SM0424.S	M7594.D	CD810LCS-P(0)	LCS	CI5(96)	16237338	
SM0424.S	M7595.D	M8168-P(2)	SA	CI5(96)	14541305	
SM0424.S	M7596.D	M8168DUP-P(2)	QADU	CI5(96)	15605301	
SM0424.S	M7597.D	M8170-P(2)	SA	CI5(96)	16224014	
SM0424.S	M7598.D	M8170MS-P(0)	MS	CI5(96)	15250466	
SM0424.S	M7599.D	M8170MSD-P(0)	MSD	CI5(96)	15643142	
SM0424.S	M7600.D	M8171-P1(2)	SA	CI5(96)	16482538	
SM0424.S	M7601.D	M8388-P(2)	SA	CI5(96)	16286767	
SM0424.S	M7603.D	IE07	CCV	CI5(96)	18994252	

BATTELLE - DUXBURY OPERATIONS SAMPLE PREPARATION RECORDS

<u>Project Title(s)</u>	<u>Project No.(s)</u>
USACE/NAE - New Bedford Harbor LTM Study	100053747
14-0497	
USACE-NAE New Bedford Harbor LTM Study	
SED, TISSUE	
SOP Numbers (see workplan for modifications)	
ExtractionSOP No.	5-192
CleanupSOP No.	5-327
CleanupSOP No.	5-328

This Batch Contains The Following Samples:			
CD588PB-P	CD594MDL-P	M8168-P	M8388-P
CD589LCS-P	CD595MDL-P	M8168DUP-P	
CD590MDL-P	CD596MDL-P	M8170-P	
CD591MDL-P	CD597MDL-P	M8170MS-P	
CD592MDL-P	CD809PB-P	M8170MSD-P	
CD593MDL-P	CD810LCS-P	M8171-P1	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Samuel Guimaraes

Approved By:	Date	Initials
Samuel Guimaraes	11/10/2014	SG

BATTELLE - DUXBURY OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Requested On/By: 10/20/2014 SG	Purpose: Sample Preparation
Relinquished On/By: 10/20/2014 MDS	Last Activity: Return
Accepted On/By: 10/20/2014 SG	Returned On/To: 10/20/2014 MDS
Stored In Facility: Sample Preparation	Returned To Facility: Custody: NA
Stored Until: 10/20/2014	Returned Comment: NA
Stored Comment: NA	

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	M8168	1	--	Intact	NA
2	M8170	1	--	Intact	NA
3	M8388	1	--	Intact	NA
Total Samples		3	* "C" = Consumed Container		

BATTELLE - DUXBURY OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Requested On/By: 11/07/2014 SG	Purpose: Sample Preparation
Relinquished On/By:	Last Activity: Request
Accepted On/By:	Returned On/To:
Stored In Facility:	Returned To Facility:
Stored Until:	
Stored Comment: NA	Returned Comment: NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	M8171	1	--	Intact	NA
Total Samples		1	* "C" = Consumed Container		

BATTELLE - DUXBURY OPERATIONS SAMPLE IDENTIFICATION PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID	Description
CD588PB-P	Procedural Blank
CD589LCS-P	Laboratory Control Sample
CD590MDL-P	Method Detection Limits
CD591MDL-P	Method Detection Limits
CD592MDL-P	Method Detection Limits
CD593MDL-P	Method Detection Limits
CD594MDL-P	Method Detection Limits
CD595MDL-P	Method Detection Limits
CD596MDL-P	Method Detection Limits
CD597MDL-P	Method Detection Limits
CD809PB-P	Procedural Blank
CD810LCS-P	Laboratory Control Sample
M8168-P	NBH14-0073
M8168DUP-P	Lab Duplicate of NBH14-0073
M8170-P	NBH14-0081
M8170MS-P	Matrix Spike of NBH14-0081
M8170MSD-P	Matrix Spike Duplicate of NBH14-0081
M8171-P1	NBH14-0085
M8388-P	NBH14-0105

Samples Assigned By

Samuel Guimaraes

Date : October 13, 2014

Comments:

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CD588PB-P	NA	--	NA	NA	NA	10.06	98.29	1.71	9.89
CD589LCS-P	NA	--	NA	NA	NA	9.95	98.29	1.71	9.78
CD590MDL-P	NA	--	1.08	3.33	2.95	10.07	83.11	16.89	8.37
CD591MDL-P	NA	--	1.10	3.31	3.01	10.44	86.43	13.57	9.02
CD592MDL-P	NA	--	1.11	3.45	3.12	10.87	85.90	14.10	9.34
CD593MDL-P	NA	--	1.10	3.29	3.01	10.34	87.21	12.79	9.02
CD594MDL-P	NA	--	1.10	3.65	3.20	10.06	82.35	17.65	8.28
CD595MDL-P	NA	--	1.11	3.12	2.81	10.01	84.58	15.42	8.47
CD596MDL-P	NA	--	1.09	3.16	2.85	10.22	85.02	14.98	8.69
CD597MDL-P	NA	--	1.11	3.31	2.95	10.01	83.64	16.36	8.37
CD809PB-P	NA	--	NA	NA	NA	9.95	98.39	1.61	9.79
CD810LCS-P	NA	--	NA	NA	NA	10.01	98.39	1.61	9.85
M8168-P	1	--	1.10	2.96	2.89	10.00	96.24	3.76	9.62
M8168DUP-P	1	--	1.11	3.01	2.99	10.11	98.95	1.05	10.00
M8170-P	1	--	1.12	3.07	3.06	10.05	99.49	0.51	10.00
M8170MS-P	1	--	1.09	3.05	3.04	5.16	99.49	0.51	5.13
M8170MSD-P	1	--	1.12	3.07	3.06	5.21	99.49	0.51	5.18
M8171-P1	1	--	1.11	3.09	3.05	9.97	97.98	2.02	9.77
M8388-P	1	--	1.10	2.93	2.92	10.07	99.45	0.55	10.01

Validation of:	Performed:
Wet Wt.	11/10/14 SG

Sample ID:	Comments:	Reference:
CD588PB-P	Average of percent dry weights from authentic samples in Batch	NA

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed

BATTELLE - DUXBURY OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CD589LCS-P			No. 14-0497 USACE-NAE New Bedford Harbor LTM Study		Average of percent dry weights from authentic samples in Batch		NA		
CD809PB-P			No. 14-0497 USACE-NAE New Bedford Harbor LTM Study		Average of percent dry weights from authentic samples in Batch		NA		
CD810LCS-P			No. 14-0497 USACE-NAE New Bedford Harbor LTM Study		Average of percent dry weights from authentic samples in Batch		NA		
M8171-P1									M8171 (14-0496)

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
SURROGATE SPIKE FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CD588PB-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD589LCS-P	HX10	LCS/MS	8	75	11/03/14 SG	KAW	NA
CD589LCS-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD590MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD590MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD591MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD591MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD592MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD592MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD593MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD593MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD594MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD594MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD595MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD595MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD596MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD596MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD597MDL-P	ID59	SIS	1	100	11/03/14 SG	KAW	NA
CD597MDL-P	ID73	LCS/MS	1	150	11/03/14 SG	KAW	NA
CD809PB-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA
CD810LCS-P	HX10	LCS/MS	8	75	11/03/14 SG	KAW	NA
CD810LCS-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA
M8168-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA
M8168DUP-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA
M8170-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA
M8170MS-P	HX10	LCS/MS	8	125	11/03/14 SG	KAW	NA

BATTELLE - DUXBURY OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
M8170MS-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA
M8170MSD-P	HX10	LCS/MS	8	125	11/03/14 SG	KAW	NA
M8170MSD-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA
M8171-P1	ID59	SIS	4	400	11/03/14 SG	KAW	NA
M8388-P	ID59	SIS	1	400	11/03/14 SG	KAW	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
HX10	Pipette	G0400231B
ID59	Pipette	G0400231B
ID59	Pipette	I0827923B
ID73	Pipette	G0400231B



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
CD588PB-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD589LCS-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD590MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD591MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD592MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD593MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD594MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD595MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD596MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD597MDL-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD809PB-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
CD810LCS-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
M8168-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
M8168DUP-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
M8170-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
M8170MS-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
M8170MSD-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
M8171-P1	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA
M8388-P	11/03/14 SG	11/03/14 SG	11/04/14 KAW	NA	NA	65	NA

BATTELLE - DUXBURY OPERATIONS SAMPLE EXTRACTION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID	First Extraction	Second Extraction	Third Extraction	Turbo °C	Turbo PSI	KD °C	Comment
-----------	------------------	-------------------	------------------	----------	-----------	-------	---------

Reagents:

Name	Expires	Lot No	Procedure	Comments
Sodium Sulfate	11/10/14	0000084928	Muffled at 400 °C for more than 4 hours. Expiration date changed from original after reagent was consumed.	
Sodium Sulfate	11/04/14	084928	Muffled at 400 °C for more than 4 hours. Expiration date changed from original after reagent was consumed.	

Solvents:

Name	Lot No	Comments
DCM cycletainer	00000093995	
Hexane	0000078260	Solvent exchanged during concentration.



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
EXTRACT CLEANUP FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Extract Id	Date	Init.	Comments
CD588PB-P(0)	11/06/14	KAW	NA
CD589LCS-P(0)	11/06/14	KAW	NA
CD590MDL-P(0)	11/06/14	KAW	NA
CD591MDL-P(0)	11/06/14	KAW	NA
CD592MDL-P(0)	11/06/14	KAW	NA
CD593MDL-P(0)	11/06/14	KAW	NA
CD594MDL-P(0)	11/06/14	KAW	NA
CD595MDL-P(0)	11/06/14	KAW	NA
CD596MDL-P(0)	11/06/14	KAW	NA
CD597MDL-P(0)	11/06/14	KAW	NA
CD809PB-P(0)	11/06/14	KAW	NA
CD810LCS-P(0)	11/06/14	KAW	NA
M8168-P(0)	11/06/14	KAW	NA
M8168DUP-P(0)	11/06/14	KAW	NA
M8170-P(0)	11/06/14	KAW	NA
M8170MS-P(0)	11/06/14	KAW	NA
M8170MSD-P(0)	11/06/14	KAW	NA
M8171-P1(0)	11/06/14	KAW	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT CLEANUP FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

**USACE-NAE New Bedford Harbor LTM Study
SED, TISSUE**

Extract Id	Date	Init.	Comments
M8388-P(0)	11/06/14	KAW	NA

Cleanup:

Copper Cleanup

Reagents:

Name	Expires	Lot No	Procedure
Copper, granular, 10-40 mesh	10/22/19	MKBT0084V	NA
Activated Copper	11/11/14	MKBT0084V	Activated according to Cleanup SOP (5-328)



The Business of Innovation

**BATTELLE - DUXBURY OPERATIONS
COLUMN FRACTIONATION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Extract Id	Date	Init.	Sample Specific Comments
CD588PB-P(0)	11/06/14	KAW	NA
CD589LCS-P(0)	11/06/14	KAW	NA
CD590MDL-P(0)	11/06/14	KAW	NA
CD591MDL-P(0)	11/06/14	KAW	NA
CD592MDL-P(0)	11/06/14	KAW	NA
CD593MDL-P(0)	11/06/14	KAW	NA
CD594MDL-P(0)	11/06/14	KAW	NA
CD595MDL-P(0)	11/06/14	KAW	NA
CD596MDL-P(0)	11/06/14	KAW	NA
CD597MDL-P(0)	11/06/14	KAW	NA
CD809PB-P(0)	11/06/14	KAW	NA
CD810LCS-P(0)	11/06/14	KAW	NA
M8168-P(0)	11/06/14	KAW	NA
M8168DUP-P(0)	11/06/14	KAW	NA
M8170-P(0)	11/06/14	KAW	NA
M8170MS-P(0)	11/06/14	KAW	NA
M8170MSD-P(0)	11/06/14	KAW	NA

BATTELLE - DUXBURY OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Extract Id	Date	Init.	Sample Specific Comments
M8171-P1(0)	11/06/14	KAW	NA
M8388-P(0)	11/06/14	KAW	NA

Column Diameter: 13 mm **Procedure Comment:**

Elution Volume: 15 mL

Solvents

Name	Lot No
DCM cycletainer	00000093995
Hexane	0000078260
Hexane	0000088997

Reagents

Weight g	Name	Expires	Lot No	Procedure
3.00	Florisil	11/06/14	801139-1991484	Baked at 110 °C for more than 24 hours (SPE columns not baked)
18.00	Florisil	11/06/14	BCBN3313V	Baked at 110 °C for more than 24 hours (SPE columns not baked)

Fractions

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CD588PB-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD589LCS-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD590MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD591MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD592MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD593MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD594MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD595MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD596MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD597MDL-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD809PB-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
CD810LCS-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
M8168-P	0	C	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
M8168-P	2	--	11/10/2014 9:41:00 AM	M8168-P	0	1000	950	1.053	1.053	11/10/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



The Business of Innovation

BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8168-P-D	3	C	11/10/2014 9:41:00 AM	M8168-P	0	1000	50	20.000	20.000	11/10/14 SG
M8168-P-D	4	--	11/10/2014 9:54:00 AM	M8168-P-D	3	1000	950	1.053	21.053	11/10/14 SG
M8168-P-D	5	--	11/10/2014 9:54:00 AM	M8168-P-D	3	1000	50	20.000	400.000	11/10/14 SG
M8168DUP-P	0	C	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
M8168DUP-P	2	--	11/10/2014 9:41:00 AM	M8168DUP-P	0	1000	950	1.053	1.053	11/10/14 SG
M8168DUP-P-D	3	C	11/10/2014 9:41:00 AM	M8168DUP-P	0	1000	50	20.000	20.000	11/10/14 SG
M8168DUP-P-D	4	--	11/10/2014 9:54:00 AM	M8168DUP-P-D	3	1000	950	1.053	21.053	11/10/14 SG
M8168DUP-P-D	5	--	11/10/2014 9:54:00 AM	M8168DUP-P-D	3	1000	50	20.000	400.000	11/10/14 SG
M8170-P	0	C	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
M8170-P	2	--	11/10/2014 9:41:00 AM	M8170-P	0	1000	950	1.053	1.053	11/10/14 SG
M8170-P-D	3	C	11/10/2014 9:41:00 AM	M8170-P	0	1000	50	20.000	20.000	11/10/14 SG
M8170-P-D	4	--	11/10/2014 9:54:00 AM	M8170-P-D	3	1000	950	1.053	21.053	11/10/14 SG
M8170-P-D	5	--	11/10/2014 9:54:00 AM	M8170-P-D	3	1000	50	20.000	400.000	11/10/14 SG
M8170MS-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

**BATTELLE - DUXBURY OPERATIONS
PREPARATION EXTRACT SPLIT FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
M8170MSD-P	0	--	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
M8171-P1	0	C	11/3/2014 3:30:00 PM	NA		NA	NA	1.000	1.000	11/03/14 SG
M8171-P1	2	--	11/10/2014 9:41:00 AM	M8171-P1	0	1000	950	1.053	1.053	11/10/14 SG
M8171-P1-D	3	C	11/10/2014 9:41:00 AM	M8171-P1	0	1000	50	20.000	20.000	11/10/14 SG
M8171-P1-D	4	--	11/10/2014 9:54:00 AM	M8171-P1-D	3	1000	950	1.053	21.053	11/10/14 SG
M8171-P1-D	5	--	11/10/2014 9:54:00 AM	M8171-P1-D	3	1000	50	20.000	400.000	11/10/14 SG
M8388-P	0	C	11/3/2014 10:30:00 AM	NA		NA	NA	1.000	1.000	11/03/14 SG
M8388-P	2	--	11/10/2014 9:41:00 AM	M8388-P	0	1000	950	1.053	1.053	11/10/14 SG
M8388-P-D	3	C	11/10/2014 9:41:00 AM	M8388-P	0	1000	50	20.000	20.000	11/10/14 SG
M8388-P-D	4	--	11/10/2014 9:54:00 AM	M8388-P-D	3	1000	950	1.053	21.053	11/10/14 SG
M8388-P-D	5	--	11/10/2014 9:54:00 AM	M8388-P-D	3	1000	50	20.000	400.000	11/10/14 SG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution*	Date Spiked/ Spiked By	Witn'd By
CD588PB-P(0)	900	100	IE11	100	4	1000	1.000	11/10/14 SG	KAW
CD589LCS-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD590MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD591MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD592MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD593MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD594MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD595MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD596MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD597MDL-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD809PB-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
CD810LCS-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
M8168-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
M8168-P-D(3)	905	95	IE11	100	1	1000	20.000	11/10/14 SG	KAW
M8168-P-D(5)	905	95	IE11	100	1	1000	400.000	11/10/14 SG	KAW
M8168DUP-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
M8168DUP-P-D(3)	905	95	IE11	100	1	1000	20.000	11/10/14 SG	KAW
M8168DUP-P-D(5)	905	95	IE11	100	1	1000	400.000	11/10/14 SG	KAW
M8170-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm . (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
M8170-P-D(3)	905	95	IE11	100	1	1000	20.000	11/10/14 SG	KAW
M8170-P-D(5)	905	95	IE11	100	1	1000	400.000	11/10/14 SG	KAW
M8170MS-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
M8170MSD-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
M8171-P1(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
M8171-P1-D(3)	905	95	IE11	100	1	1000	20.000	11/10/14 SG	KAW
M8171-P1-D(5)	905	95	IE11	100	1	1000	400.000	11/10/14 SG	KAW
M8388-P(0)	900	100	IE11	100	4	1000	1.000	11/07/14 SG	KAW
M8388-P-D(3)	905	95	IE11	100	1	1000	20.000	11/10/14 SG	KAW
M8388-P-D(5)	905	95	IE11	100	1	1000	400.000	11/10/14 SG	KAW

Syringes/Pipettes Used:

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE - DUXBURY OPERATIONS SAMPLE SPECIFIC COMMENTS

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Sample ID:	Comment:	Date/Initials:
CD588PB-P	NA	NA
CD589LCS-P	NA	NA
CD590MDL-P	NA	NA
CD591MDL-P	NA	NA
CD592MDL-P	NA	NA
CD593MDL-P	NA	NA
CD594MDL-P	NA	NA
CD595MDL-P	NA	NA
CD596MDL-P	NA	NA
CD597MDL-P	NA	NA
CD809PB-P	additional QC sample added to batch on 11/3/2014 because project manager was consulted and decided that another PB was needed for authentic samples due to different spike amounts.	11/03/14 SG
CD810LCS-P	additional QC sample added to batch on 11/3/2014 because project manager was consulted and decided that another LCS was needed for authentic samples due to different spike amounts.	11/03/14 SG
M8168-P	NA	NA
M8168DUP-P	NA	NA
M8170-P	NA	NA
M8170MS-P	NA	NA
M8170MSD-P	NA	NA
M8171-P1	NA	NA
M8388-P	NA	NA

BATTELLE - DUXBURY OPERATIONS EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

USACE-NAE New Bedford Harbor LTM Study

SED, TISSUE

Purpose: GC/ECD TRANSFER	Last Activity: Prep->Inst
Relinquished On/By: Nov 10 2014 11:38AM SG	Received On/By: Nov 10 2014 11:38AM RR
Relinquished From:	Received Location: GC Laboratory: NA
Relinquish Comment: NA	Received Comment: NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CD588PB-P(0)	1000	1	Intact	NA
2	CD589LCS-P(0)	1000	1	Intact	NA
3	CD590MDL-P(0)	1000	1	Intact	NA
4	CD591MDL-P(0)	1000	1	Intact	NA
5	CD592MDL-P(0)	1000	1	Intact	NA
6	CD593MDL-P(0)	1000	1	Intact	NA
7	CD594MDL-P(0)	1000	1	Intact	NA
8	CD595MDL-P(0)	1000	1	Intact	NA
9	CD596MDL-P(0)	1000	1	Intact	NA
10	CD597MDL-P(0)	1000	1	Intact	NA
11	CD809PB-P(0)	1000	1	Intact	NA
12	CD810LCS-P(0)	1000	1	Intact	NA
13	M8168-P(2)	1000	1.053	Intact	NA
14	M8168-P-D(4)	1000	21.053	Intact	NA
15	M8168-P-D(5)	1000	400	Intact	NA
16	M8168DUP-P(2)	1000	1.053	Intact	NA
17	M8168DUP-P-D(4)	1000	21.053	Intact	NA
18	M8168DUP-P-D(5)	1000	400	Intact	NA
19	M8170-P(2)	1000	1.053	Intact	NA
20	M8170-P-D(4)	1000	21.053	Intact	NA
21	M8170-P-D(5)	1000	400	Intact	NA
22	M8170MS-P(0)	1000	1	Intact	NA
23	M8170MSD-P(0)	1000	1	Intact	NA
24	M8171-P1(2)	1000	1.053	Intact	NA
25	M8171-P1-D(4)	1000	21.053	Intact	NA
26	M8171-P1-D(5)	1000	400	Intact	NA
27	M8388-P(2)	1000	1.053	Intact	NA
28	M8388-P-D(4)	1000	21.053	Intact	NA

**BATTELLE - DUXBURY OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

**USACE-NAE New Bedford Harbor LTM Study
SED, TISSUE**

29	M8388-P-D(5)	1000	400	Intact	NA
Total Extracts:		29			

**BATTELLE - DUXBURY OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

USACE/NAE - New Bedford Harbor LTM Study

Project No.(s)

100053747

14-0497

**USACE-NAE New Bedford Harbor LTM Study
SED, TISSUE**

Entered By:

On:

Task Leader Approval:

On:

Supervisor Approval:

On:

PM Approval:

On:

INJECTION LOG

Directory I:\M\DATA\SM0417\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7203.D	HEXANE		10-20-2014 05:18 PM
2	2	M7204.D	HF94		10-20-2014 06:02 PM
3	3	M7205.D	IE03		10-20-2014 06:46 PM
4	4	M7206.D	IE04	Level not used.	10-20-2014 07:31 PM
5	5	M7207.D	IE05		10-20-2014 08:16 PM
6	6	M7208.D	IE06	RR 11/18/14	10-20-2014 09:00 PM
7	7	M7209.D	IE07		10-20-2014 09:45 PM
8	8	M7210.D	IE08		10-20-2014 10:29 PM
9	9	M7211.D	IE09	Level not used.	10-20-2014 11:14 PM
10	10	M7212.D	IE10		10-20-2014 11:58 PM
11	11	M7213.D	HY06 ICC		10-21-2014 12:43 AM
12	12	M7214.D	HF94		10-21-2014 01:28 AM
13	13	M7215.D	IE08 mid		10-21-2014 02:12 AM
14	14	M7216.D	CD598PB-P(3)	Procedural Blank 5-128 14	10-21-2014 02:57 AM
15	15	M7217.D	CD599LCS-P(5)	Laboratory Control Sample	10-21-2014 03:42 AM
16	16	M7218.D	CD600SRM-P(5)	Standard Reference Materi	10-21-2014 04:26 AM
17	17	M7219.D	M7754-P(5)	B537PreMnA 5-128 14-0498	10-21-2014 05:11 AM
18	18	M7220.D	M7755-P(5)	B537PreMnB 5-128 14-0498	10-21-2014 05:55 AM
19	19	M7221.D	M7756-P(5)	B537PreMnC 5-128 14-0498	10-21-2014 06:40 AM
20	20	M7222.D	M7756MS-P(5)	Matrix Spike of B537PreMn	10-21-2014 07:25 AM
21	21	M7223.D	M7756MSD-P(5)	Matrix Spike Duplicate of	10-21-2014 08:09 AM
22	22	M7224.D	M7757-P(5)	B537R01MnA 5-128 14-0498	10-21-2014 08:54 AM
23	23	M7225.D	M7758-P(5)	B537R01MnB 5-128 14-0498	10-21-2014 09:38 AM
24	24	M7226.D	HF94		10-21-2014 10:22 AM
25	25	M7227.D	IE08 mid		10-21-2014 11:07 AM
26	26	M7228.D	M7759-P(5)	B537R01MnC 5-128 14-0498	10-21-2014 11:52 AM
27	27	M7229.D	M7760-P(5)	B537R01MnD 5-128 14-0498	10-21-2014 12:36 PM
28	28	M7230.D	M7761-P(5)	B537R01MnE 5-128 14-0498	10-21-2014 01:21 PM
29	29	M7231.D	M7762-P(5)	B537S01MnA 5-128 14-0498	10-21-2014 02:05 PM
30	30	M7232.D	M7763-P(5)	B537S01MnB 5-128 14-0498	10-21-2014 02:50 PM
31	31	M7233.D	M7764-P(5)	B537S01MnC 5-128 14-0498	10-21-2014 03:35 PM
32	32	M7234.D	M7765-P(5)	B537S01MnD 5-128 14-0498	10-21-2014 04:19 PM
33	33	M7235.D	M7766-P(5)	B537S01MnE 5-128 14-0498	10-21-2014 05:04 PM
34	34	M7236.D	M7767-P(5)	B537S02MnA 5-128 14-0498	10-21-2014 05:48 PM
35	35	M7237.D	M7768-P(5)	B537S02MnB 5-128 14-0498	10-21-2014 06:33 PM
36	36	M7238.D	HF94		10-21-2014 07:17 PM
37	37	M7239.D	IE07 mid		10-21-2014 08:02 PM
38	38	M7240.D	M7768DUP-P(5)	Lab Duplicate of B537S02M	10-21-2014 08:46 PM
39	39	M7241.D	M7769-P(5)	B537S02MnC 5-128 14-0498	10-21-2014 09:31 PM
40	40	M7242.D	M7770-P(5)	B537S02MnD 5-128 14-0498	10-21-2014 10:16 PM
41	41	M7243.D	M7771-P(5)	B537S02MnE 5-128 14-0498	10-21-2014 11:00 PM
42	42	M7244.D	CD669PB-P(0)	Procedural Blank 5-128 14	10-21-2014 11:45 PM
43	43	M7245.D	CD670LCS-P(0)	Laboratory Control Sample	10-22-2014 12:29 AM
44	44	M7246.D	CD671LCS-D-P(0)	Laboratory Control Sample	10-22-2014 01:14 AM
45	45	M7247.D	M8926-P(0)	FLD20141014OSHCO-7-14-7E	10-22-2014 01:58 AM
46	46	M7248.D	M8928-P(0)	FSW20141014OSHCO-7-14-1 5	10-22-2014 02:43 AM
47	47	M7249.D	HF94		10-22-2014 03:28 AM
48	48	M7250.D	IE07 mid		10-22-2014 04:12 AM

INJECTION LOG

Directory I:\M\DATA\SM0424\ Highlighted cells reported.

Lin	BTL	File	Sample Id	Miscellaneous	Injected
1	1	M7580.D	HEXANE		11-14-2014 03:59 PM
2	2	M7581.D	IE07 mid		11-14-2014 04:44 PM
3	3	M7582.D	CD588PB-P(0)	Procedural Blank. Sodium	11-14-2014 05:28 PM
4	4	M7583.D	CD589LCS-P(0)	Laboratory Control Sample	11-14-2014 06:13 PM
5	5	M7584.D	CD590MDL-P(0)	Method Detection Limits.	11-14-2014 06:57 PM
6	6	M7585.D	CD591MDL-P(0)	Method Detection Limits.	11-14-2014 07:42 PM
7	7	M7586.D	CD592MDL-P(0)	Method Detection Limits.	11-14-2014 08:27 PM
8	8	M7587.D	CD593MDL-P(0)	Method Detection Limits.	11-14-2014 09:11 PM
9	9	M7588.D	CD594MDL-P(0)	Method Detection Limits.	11-14-2014 09:56 PM
10	10	M7589.D	CD595MDL-P(0)	Method Detection Limits.	11-14-2014 10:40 PM
11	11	M7590.D	CD596MDL-P(0)	Method Detection Limits.	11-14-2014 11:25 PM
12	12	M7591.D	CD597MDL-P(0)	Method Detection Limits.	11-15-2014 12:09 AM
13	13	M7592.D	IE08 mid		11-15-2014 12:54 AM
14	14	M7593.D	CD809PB-P(0)	Procedural Blank. Sample	11-15-2014 01:38 AM
15	15	M7594.D	CD810LCS-P(0)	Laboratory Control Sample	11-15-2014 02:22 AM
16	16	M7595.D	M8168-P(2)	NBH14-0073 5-128 14-0497	11-15-2014 03:07 AM
17	17	M7596.D	M8168DUP-P(2)	Lab Duplicate of NBH14-00	11-15-2014 03:51 AM
18	18	M7597.D	M8170-P(2)	NBH14-0081 5-128 14-0497	11-15-2014 04:36 AM
19	19	M7598.D	M8170MS-P(0)	Matrix Spike of NBH14-008	11-15-2014 05:20 AM
20	20	M7599.D	M8170MSD-P(0)	Matrix Spike Duplicate of	11-15-2014 06:05 AM
21	21	M7600.D	M8171-P1(2)	NBH14-0085 5-128 14-0497	11-15-2014 06:49 AM
22	22	M7601.D	M8388-P(2)	NBH14-0105 5-128 14-0497	11-15-2014 07:34 AM
23	23	M7602.D	M8168-P-D(4)	NBH14-0073 5-128 14-0497	11-15-2014 08:18 AM
24	24	M7603.D	IE07 mid		11-15-2014 09:03 AM
25	25	M7604.D	M8168DUP-P-D(4)	Lab Duplicate of NBH14-00	11-15-2014 09:47 AM
26	26	M7605.D	M8170-P-D(4)	NBH14-0081 5-128 14-0497	11-15-2014 10:31 AM
27	27	M7606.D	M8171-P-D(4)		11-15-2014 11:16 AM
28	28	M7607.D	M8388-P-D(4)	NBH14-0105 5-128 14-0497	11-15-2014 12:01 PM
29	29	M7608.D	M8168-P-D(4)	NBH14-0073 5-128 14-0497	11-15-2014 12:45 PM
30	30	M7609.D	M8168DUP-P-D(4)		11-15-2014 01:29 PM
31	31	M7610.D	M8170-P-D(4)		11-15-2014 02:14 PM
32	32	M7611.D	M8171-P-D(4)	NBH14-0085 5-128 14-0497	11-15-2014 02:58 PM
33	33	M7612.D	M8388-P-D(4)		11-15-2014 03:43 PM
34	34	M7613.D	M8363-P-D(5)	NBH14-0232 5-128 14-0493	11-15-2014 04:28 PM
35	35	M7614.D	IE08 mid		11-15-2014 05:12 PM
36	36	M7615.D	IF27	AROCLOR 1221	11-15-2014 05:57 PM
37	37	M7616.D	IF28	AROCLOR 1232	11-15-2014 06:41 PM
38	38	M7617.D	IF29	AROCLOR 1242	11-15-2014 07:26 PM
39	39	M7618.D	IF30	AROCLOR 1248	11-15-2014 08:10 PM
40	40	M7619.D	IF31	AROCLOR 1254	11-15-2014 08:54 PM
41	41	M7620.D	IB57	AROCLOR 1262	11-15-2014 09:39 PM
42	42	M7621.D	IB58	AROCLOR 1268	11-15-2014 10:23 PM
43	43	M7622.D	IF16		11-15-2014 11:08 PM
44	44	M7623.D	IF17		11-15-2014 11:52 PM
45	45	M7624.D	IF18		11-16-2014 12:37 AM
46	46	M7625.D	IF19		11-16-2014 01:21 AM
47	47	M7626.D	IF20		11-16-2014 02:06 AM
48	48	M7627.D	IF21		11-16-2014 02:50 AM
49	49	M7628.D	IF13 ICC		11-16-2014 03:34 AM
50	50	M7629.D	CD899PB-P(3)	Procedural Blank 5-128 14	11-16-2014 04:19 AM
51	51	M7630.D	CD900LCS-P(3)	Laboratory Control Sample	11-16-2014 05:03 AM
52	52	M7631.D	M9176-P(3)	PMP-22-SW-VS 5-128 14-056	11-16-2014 05:48 AM
53	53	M7632.D	M9176MS-P(3)	Matrix Spike of PMP-22-SW	11-16-2014 06:32 AM
54	54	M7633.D	M9177-P(3)	PMP-23-SW-VS 5-128 14-056	11-16-2014 07:17 AM
55	55	M7634.D	M9177DUP-P(3)	Lab Duplicate of PMP-23-S	11-16-2014 08:01 AM
56	56	M7635.D	M9178-P(3)	PMP-24-SW-VS 5-128 14-056	11-16-2014 08:46 AM
57	57	M7636.D	IF29		11-16-2014 09:30 AM
58	2	M7637.D	IF19 mid		11-17-2014 12:15 PM
59	3	M7638.D	M9176-P-D(5)	PMP-22-SW-VS 5-128 14-056	11-17-2014 01:44 PM
60	4	M7639.D	M9177-P-D(7)	PMP-23-SW-VS 5-128 14-056	11-17-2014 02:29 PM
61	5	M7640.D	M9177DUP-P-D(7)	Lab Duplicate of PMP-23-S	11-17-2014 03:13 PM

Dilutions not needed
RR 11/25/14



Calibration Response Factor Report

Batch: 14-0497 **Project Test Code:** Master 128(S) RFs validated CRD 12/10/14
Data Set: DP-14-0679 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Type:	Column:	MQO:	1 IE03 M7205.D	2 IE05 M7207.D	3 IE06 M7208.D	4 IE07 M7209.D	5 IE08 M7210.D	6 IE10 M7212.D	7	8	Levels:	Curve Fit:	(A)	(B)	(C)	Stat (r ² /RSD):	Qual:
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl2(8)	1	Y	1.02677	0.82499	0.74685	0.63118	0.55904	0.41512	-	-	6	Q	-0.05406	0.58100	0.02367	0.99968		
3	Cl3(18)	1	Y	1.31210	1.10482	0.96661	0.78724	0.69070	0.50395	-	-	6	Q	-0.06844	0.71262	0.03558	0.99947		
4	Cl3(34)	s	1	Y	2.47273	1.36117	1.18217	1.03139	0.92191	0.71999	-	-	6	Q	-0.06938	0.92761	0.04587	0.99994	
5	Cl3(28)	1	Y	1.88563	1.62148	1.53903	1.39969	1.26450	1.01381	-	-	6	Q	-0.09842	1.31978	0.03237	0.99986		
6	Cl4(52)	1	Y	2.67460	1.50893	1.27188	1.06050	0.93014	0.70933	-	-	6	Q	-0.07364	0.92696	0.05816	0.99983		
7	Cl4(44)	1	Y	1.96878	1.69047	1.60648	1.42175	1.25645	1.00372	-	-	6	Q	-0.09818	1.30598	0.04163	0.99973		
8	Cl4(66)	1	Y	2.14003	1.91334	1.75148	1.60565	1.43266	1.15511	-	-	6	Q	-0.10876	1.49082	0.04098	0.99982		
9	Cl5(101)	1	Y	1.87327	1.59373	1.70864	1.61385	1.42978	1.22422	-	-	6	Q	-0.08750	1.49635	0.02623	0.99975		
10	Cl6(161)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Cl6(152)	s	1	Y	1.02184	0.73169	0.67623	0.59438	0.54889	0.47996	-	-	6	Q	-0.02339	0.54921	0.01882	0.99992	
12	Cl5(118)	1	Y	1.02402	0.91463	0.85020	0.75415	0.68354	0.58350	-	-	6	Q	-0.03737	0.69686	0.02122	0.99982		
13	Cl6(153)	1	Y	0.88266	0.81935	0.60192	0.77537	0.66030	0.59647	-	-	6	Q	-0.02991	0.69018	0.00733	0.99932		
14	Cl5(105)	1	Y	1.20312	1.04021	0.99965	0.96015	0.82296	0.65909	-	-	6	Q	-0.06789	0.87004	0.02177	0.99963		
15	Cl6(138)	1	Y	1.22541	1.06675	1.00587	0.91669	0.84817	0.76297	-	-	6	Q	-0.03117	0.85646	0.02109	0.99991		
16	Cl7(187)	1	Y	1.07415	0.94434	0.88498	0.79082	0.74346	0.66512	-	-	6	Q	-0.02786	0.74881	0.01846	0.99992		
17	Cl6(128)	1	Y	1.16100	0.91667	0.89359	0.85607	0.84318	0.73247	-	-	6	Q	-0.04270	0.86786	0.00587	0.99999		
18	Cl7(180)	1	Y	1.23170	1.08198	0.99753	0.93689	0.88497	0.82624	-	-	6	Q	-0.02031	0.88592	0.01772	0.99996		
19	Cl7(170)	1	Y	1.33635	1.19973	1.11853	1.05917	1.00487	0.94111	-	-	6	Q	-0.02267	1.00845	0.01743	0.99997		
20	Cl8(195)	1	Y	1.24821	1.10061	1.05076	0.99234	0.94476	0.89153	-	-	6	Q	-0.01887	0.94735	0.01528	0.99997		
21	Cl9(206)	1	Y	1.18038	1.03661	0.99467	0.96457	0.91081	0.85789	-	-	6	Q	-0.02022	0.91869	0.01268	0.99997		
22	Cl10(209)	1	Y	0.99002	0.86426	0.82007	0.78889	0.73849	0.67758	-	-	6	Q	-0.02343	0.74907	0.01198	0.99996		
23	Signal	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Cl2(8)	2	Y	0.94637	0.83650	0.76620	0.67202	0.62199	0.48595	-	-	6	Q	-0.05185	0.64681	0.01712	0.99988		
26	Cl3(18)	2	Y	1.39241	1.13741	1.00550	0.76551	0.70491	0.54182	-	-	6	Q	-0.05533	0.70768	0.03799	0.99943		
27	Cl3(34)	s	2	Y	2.23518	1.39531	1.20146	1.04748	0.98379	0.79730	-	-	6	Q	-0.06315	0.98749	0.03800	0.99996	
28	Cl3(28)	2	Y	2.05612	1.73008	1.59254	1.42520	1.36560	1.12979	-	-	6	Q	-0.08759	1.40224	0.02866	0.99996		
29	Cl4(52)	2	Y	1.32543	1.01634	1.04226	0.82635	0.80598	0.62728	-	-	6	Q	-0.06549	0.83027	0.02172	0.99971		
30	Cl4(44)	2	Y	2.26696	1.68554	1.62828	1.44775	1.40139	1.13801	-	-	6	Q	-0.09853	1.44647	0.02603	0.99996		

Calibration Response Factor Report

Batch: 14-0497 **Project Test Code:** Master 128(S)
Data Set: DP-14-0679 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Column Type:	Column:	MQO:	1 IE03	2 IE05	3 IE06	4 IE07	5 IE08	6 IE10	7	8	Levels:	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
					M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D									
31	Cl4(66)		2	Y	2.28150	1.94181	1.76289	1.65364	1.54066	1.31516	-	-	6	Q	-0.08582	1.58007	0.03256	0.99996	
32	Cl5(101)		2	Y	1.56754	1.17777	1.01633	1.01029	0.86410	0.96534	-	-	6	Q	0.04538	0.80794	0.03732	0.99968	
33	Cl6(161)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	Cl6(152)	s	2	Y	0.69735	0.69234	0.57622	0.54795	0.47409	0.53607	-	-	6	Q	0.02791	0.43955	0.02156	0.99966	
35	Cl5(118)		2	Y	1.37021	0.63622	0.73177	0.70795	0.59017	0.57149	-	-	6	Q	-0.00725	0.58778	0.02195	0.99943	
36	Cl6(153)		2	Y	1.07545	0.86632	0.79677	0.69128	0.63279	0.63321	-	-	6	Q	0.00578	0.60663	0.02539	0.99983	
37	Cl5(105)		2	Y	1.20126	1.01455	0.97857	0.92200	0.88341	0.94009	-	-	6	Q	0.02686	0.84840	0.01736	0.99996	
38	Cl6(138)		2	Y	0.67940	0.66822	0.62305	0.61544	0.61172	0.68345	-	-	6	Q	0.03117	0.58132	0.00625	0.99999	
39	Cl7(187)		2	Y	0.98245	0.80842	0.76633	0.69224	0.65688	0.68482	-	-	6	Q	0.01569	0.62875	0.01795	0.99993	
40	Cl6(128)		2	Y	1.29556	1.08544	1.04052	0.96581	0.92997	0.98492	-	-	6	Q	0.02722	0.89128	0.01958	0.99996	
41	Cl7(180)		2	Y	1.15986	0.95311	0.92022	0.85738	0.83699	0.89707	-	-	6	Q	0.02897	0.79906	0.01566	0.99998	
42	Cl7(170)		2	Y	1.17715	1.00944	0.98379	0.93732	0.91404	0.98260	-	-	6	Q	0.03138	0.87743	0.01381	0.99998	
43	Cl8(195)		2	Y	1.05313	0.90773	0.89676	0.85979	0.84072	0.91395	-	-	6	Q	0.03255	0.80577	0.01137	0.99998	
44	Cl9(206)		2	Y	0.94156	0.80488	0.80171	0.77400	0.75899	0.82033	-	-	6	Q	0.02717	0.73041	0.00888	0.99999	
45	Cl10(209)		2	Y	0.76301	0.64557	0.63678	0.60540	0.58689	0.62005	-	-	6	Q	0.01548	0.56751	0.00888	0.99998	

Calibration Response Factor Report

Batch: 14-0497 **Project Test Code:** Master 128(S)
Data Set: DP-14-0679 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417C.M **Responses Via** Initial Calibration **Last Updated** 11/14/2014 9:30:00 AM **Title:** NBH
Instrument: Inst. M **Operator:** RR **Path:** I:\M\DATA\MM0417C.M

No:	Analyte:	Type:	Column:	1	2	3	4	5	6	7	8	Curve Fit:	Levels:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
			MQO:	IE03	IE05	IE06	IE07	IE08	IE10	-	-							
				M7205.D	M7207.D	M7208.D	M7209.D	M7210.D	M7212.D	-	-							

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax^2 + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax^2 + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Calibration Response Factor Report

Batch: 14-0497 **Project Test Code:** Master 128(S)
Data Set: DP-14-0679 **SOP_NO:** 5-128-13 **RFs validated CRD 12/10/14**
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

File: MM0417F.M **Responses Via** Initial Calibration **Last Updated** 12/5/2014 3:22:00 PM **Title:** NBH 101 only to compliment B method
Instrument: Inst_M **Operator:** RR **Path:** I:\M\DATA\MM0417F.M

No:	Analyte:	Type:	Column:	MQO:	1	2	3	4	5	6	7	8	Curve Fit:	(A)	(B)	(C)	Stat (r^2/RSD):	Qual:
					IE03	IE05	IE06	IE07	IE08	IE10			Levels:					
1	Cl5(96)	I	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cl5(101)	1	Y	2.10045	1.55920	1.68988	1.70104	1.46973	1.35619	-	-	-	6	Q	-0.05296	1.51726	0.02697	0.99964
3	Signal	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Cl5(96)	I	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Cl5(101)	2	Y	1.67256	2.33575	1.99479	1.98711	2.06595	1.40514	-	-	-	6	Q	-0.26866	2.27420	-0.02348	0.99966

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean RSD: -
Count RSD: -

Calibration Curve Definitions:

Curve Fit:	Name:	Description:	Evaluate:
L	Linear	y = Bx + C	r-squared
RF	Average RF	y = Bx	RSD
L0	Linear (0,0)	y = Bx + 0	r-squared
Q	Quadratic	y = Ax^2 + Bx + C	r-squared
Q0	Quadratic (0,0)	y = Ax^2 + Bx + 0	r-squared

Calibration Curve Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.995	N	5	N	y = Bx + C
Average RF	15	N	25	N	5	N	y = Bx
Linear (0,0)	NA	NA	0.995	N	5	N	y = Bx + 0
Quadratic	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + C
Quadratic (0,0)	NA	NA	0.995	N	6	N	y = Ax^2 + Bx + 0

Calibration Response Factor Report

Batch: 14-0497 **Project Test Code:** Master 128(S)
Data Set: DP-14-0679 **SOP_NO:** 5-128-13
Project Number: 100053747 **Project Name:** USACE/NAE - New Bedford Harbor LTM Study

Method: I:\M\DATA\MM0417C.M
Title: NBH
Last Update: Fri Nov 14 9:30 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Oct 28 9:02 2014	Oct 28 8:27 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Oct 28 9:02 2014	Oct 28 8:32 2014	20 Oct 2014 11:58 PM

Method: I:\M\DATA\MM0417F.M
Title: NBH 101 only to compliment B method
Last Update: Fri Dec 05 15:22 2014
Response via: Initial Calibration
Instrument: Inst. M
Operator: RR

No:	ID:	Path\File:	Update Time:	Quant Time:	Acquisition Time:
1	IE03	I:\M\DATA\SM0417\M7205.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 6:47 PM
2	IE05	I:\M\DATA\SM0417\M7207.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 8:16 PM
3	IE06	I:\M\DATA\SM0417\M7208.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 9:01 PM
4	IE07	I:\M\DATA\SM0417\M7209.D	Dec 05 15:22 2014	Dec 05 15:15 2014	20 Oct 2014 9:45 PM
5	IE08	I:\M\DATA\SM0417\M7210.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 10:29 PM
6	IE10	I:\M\DATA\SM0417\M7212.D	Dec 05 15:21 2014	Dec 05 15:15 2014	20 Oct 2014 11:58 PM

ICC Summary Report

Batch: 14-0497 **Data Set:** DP-14-0679
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project No:** 100053747
Batch: 14-0497 **Matrix:** SED, TISSUE
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)		1	-			
2	Cl2(8)		1	Y	0.04000	0.04325	8.3
3	Cl3(18)		1	Y	0.04000	0.04152	3.8
4	Cl3(34)	s	1	Y	0.04000	0.04104	2.5
5	Cl3(28)		1	Y	0.04000	0.04097	2.5
6	Cl4(52)		1	Y	0.04000	0.04111	2.8
7	Cl4(44)		1	Y	0.04000	0.04166	4.3
8	Cl4(66)		1	Y	0.04000	0.04028	0.8
9	Cl5(101)		1	Y	0.04000	0.03706	7.3
10	Cl6(161)	l	1	-			
11	Cl6(152)	s	1	Y	0.04020	0.04329	7.8
12	Cl5(118)		1	Y	0.04000	0.04151	3.8
13	Cl6(153)		1	Y	0.04000	0.03933	1.8
14	Cl5(105)		1	Y	0.04000	0.03777	5.5
15	Cl6(138)		1	Y	0.04000	0.04232	5.8
16	Cl7(187)		1	Y	0.04000	0.04280	7.0
17	Cl6(128)		1	Y	0.04000	0.03934	1.8
18	Cl7(180)		1	Y	0.04000	0.04137	3.5
19	Cl7(170)		1	Y	0.04000	0.04068	1.8
20	Cl8(195)		1	Y	0.04000	0.03988	0.3
21	Cl9(206)		1	Y	0.04000	0.03884	3.0
22	Cl10(209)		1	Y	0.04000	0.03908	2.3
24	Cl5(96)	l	2	-			
25	Cl2(8)		2	Y	0.04000	0.04248	6.3
26	Cl3(18)		2	Y	0.04000	0.03989	0.3
27	Cl3(34)	s	2	Y	0.04000	0.04170	4.3
28	Cl3(28)		2	Y	0.04000	0.04093	2.3
29	Cl4(52)		2	Y	0.04000	0.04057	1.5
30	Cl4(44)		2	Y	0.04000	0.04125	3.3
31	Cl4(66)		2	Y	0.04000	0.04095	2.5
32	Cl5(101)		2	Y	0.04000	0.03828	4.3
33	Cl6(161)	l	2	-			
34	Cl6(152)	s	2	Y	0.04020	0.04128	2.8
35	Cl5(118)		2	Y	0.04000	0.03951	1.3
36	Cl6(153)		2	Y	0.04000	0.04346	8.8
37	Cl5(105)		2	Y	0.04000	0.04078	2.0
38	Cl6(138)		2	Y	0.04000	0.04108	2.8
39	Cl7(187)		2	Y	0.04000	0.04269	6.8
40	Cl6(128)		2	Y	0.04000	0.04136	3.5
41	Cl7(180)		2	Y	0.04000	0.04073	1.8
42	Cl7(170)		2	Y	0.04000	0.04050	1.3
43	Cl8(195)		2	Y	0.04000	0.03956	1.0
44	Cl9(206)		2	Y	0.04000	0.03878	3.0

ICC Summary Report

Batch: 14-0497 Data Set: DP-14-0679
Project Test Code: Master_128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0497 Matrix: SED, TISSUE
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
45	Cl10(209)	2	Y	0.04000	0.03893	2.8	

MQO: Only compounds flagged with "Y" will be counted towards
MQO exceedences.

Mean PD: 3.49
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

ICC Summary Report

Batch: 14-0497 Data Set: DP-14-0679
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Project Name: USACE/NAE - New Bedford Harbor LTM Study Project No: 100053747
Batch: 14-0497 Matrix: SED, TISSUE
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7213.D

HY06

Acq'd: 10/21/2014 00:43

No:	Analyte:	Type:	Col:	MQO:	(ug/mL)	(ug/mL)	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.04000	0.03858	3.5
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.04000	0.03850	3.8

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: 3.65
Follow ICAL: PASS

ICC Acceptance Criteria:

Mean PD(%):	<u>20</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0497 **Data Set:** DP-14-0679
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED, TISSUE
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7581.D		M7603.D	
						MID	% Diff	MID	% Diff
						11/14/2014 16:44		11/15/2014 09:03	
1	Cl5(96)	I	1	-					
2	Cl2(8)		1	Y	0.04008	0.03981	-0.7	0.03830	-4.4
3	Cl3(18)		1	Y	0.04016	0.04239	5.6	0.03844	-4.3
4	Cl3(34)	s	1	Y	0.04000	0.03861	-3.5	0.03865	-3.4
5	Cl3(28)		1	Y	0.04016	0.04015	0.0	0.03954	-1.5
6	Cl4(52)		1	Y	0.04004	0.03817	-4.7	0.03849	-3.9
7	Cl4(44)		1	Y	0.04016	0.03958	-1.4	0.03985	-0.8
8	Cl4(66)		1	Y	0.04008	0.03776	-5.8	0.03790	-5.4
9	Cl5(101)		1	Y	0.04008	0.04186	4.4	0.04003	-0.1
10	Cl6(161)	I	1	-					
11	Cl6(152)	s	1	Y	0.04016	0.03982	-0.8	0.04190	4.3
12	Cl5(118)		1	Y	0.04016	0.03520	-12.4	0.03705	-7.7
13	Cl6(153)		1	Y	0.04016	0.03735	-7.0	0.03798	-5.4
14	Cl5(105)		1	Y	0.04012	0.03890	-3.0	0.03748	-6.6
15	Cl6(138)		1	Y	0.04016	0.03909	-2.7	0.03851	-4.1
16	Cl7(187)		1	Y	0.04016	0.04046	0.7	0.04050	0.8
17	Cl6(128)		1	Y	0.04016	0.04175	4.0	0.03678	-8.4
18	Cl7(180)		1	Y	0.04016	0.03976	-1.0	0.03974	-1.0
19	Cl7(170)		1	Y	0.04016	0.03911	-2.6	0.03944	-1.8
20	Cl8(195)		1	Y	0.04016	0.04021	0.1	0.04013	-0.1
21	Cl9(206)		1	Y	0.04008	0.03982	-0.6	0.03983	-0.6
22	Cl10(209)		1	Y	0.04016	0.04073	1.4	0.04018	0.0
24	Cl5(96)	I	2	-					
25	Cl2(8)		2	Y	0.04008	0.03829	-4.5	0.03704	-7.6
26	Cl3(18)		2	Y	0.04016	0.03835	-4.5	0.03708	-7.7
27	Cl3(34)	s	2	Y	0.04000	0.03889	-2.8	0.03850	-3.8
28	Cl3(28)		2	Y	0.04016	0.03596	-10.5	0.03701	-7.8
29	Cl4(52)		2	Y	0.04004	0.03985	-0.5	0.03714	-7.2
30	Cl4(44)		2	Y	0.04016	0.04018	0.0	0.03975	-1.0
31	Cl4(66)		2	Y	0.04008	0.03809	-5.0	0.04003	-0.1
32	Cl5(101)		2	Y	0.04008	0.03792	-5.4	0.04194	4.6
33	Cl6(161)	I	2	-					
34	Cl6(152)	s	2	Y	0.04016	0.04175	4.0	0.04330	7.8
35	Cl5(118)		2	Y	0.04016	0.04316	7.5	0.04074	1.4
36	Cl6(153)		2	Y	0.04016	0.04026	0.2	0.03906	-2.7
37	Cl5(105)		2	Y	0.04012	0.03743	-6.7	0.03717	-7.4
38	Cl6(138)		2	Y	0.04016	0.04195	4.5	0.04201	4.6
39	Cl7(187)		2	Y	0.04016	0.04196	4.5	0.04144	3.2
40	Cl6(128)		2	Y	0.04016	0.04015	0.0	0.04075	1.5
41	Cl7(180)		2	Y	0.04016	0.04000	-0.4	0.04167	3.8
42	Cl7(170)		2	Y	0.04016	0.03960	-1.4	0.04180	4.1
43	Cl8(195)		2	Y	0.04016	0.04066	1.2	0.04195	4.5
44	Cl9(206)		2	Y	0.04008	0.04151	3.6	0.04240	5.8

CCV Summary Report

Batch: 14-0497 Data Set: DP-14-0679
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED, TISSUE
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7581.D		M7603.D	
						MID	% Diff	MID	% Diff
45	Cl10(209)		2	Y	0.04016	0.04293	6.9	0.04308	7.3
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	3.4	4.0	
						Time Check:	< 24	< 24	

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0497 **Data Set:** DP-14-0679
Project Test Code: Master 128(S) **SOP_NO:** 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study **Project Number:** 100053747

Matrix: SED, TISSUE
Calibration File: MM0417C.M **Last Updated:** 11/14/2014 9:30:00 AM

M7592.D

IE08 mid

11/15/2014 00:54

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl2(8)		1	Y	0.08016	0.06866	-14.3
3	Cl3(18)		1	Y	0.08032	0.06986	-13.0
4	Cl3(34)	s	1	Y	0.08000	0.07751	-3.1
5	Cl3(28)		1	Y	0.08032	0.07424	-7.6
6	Cl4(52)		1	Y	0.08008	0.07255	-9.4
7	Cl4(44)		1	Y	0.08032	0.07720	-3.9
8	Cl4(66)		1	Y	0.08016	0.07340	-8.4
9	Cl5(101)		1	Y	0.08016	0.08078	0.8
10	Cl6(161)	I	1	-			
11	Cl6(152)	s	1	Y	0.08032	0.07873	-2.0
12	Cl5(118)		1	Y	0.08032	0.06966	-13.3
13	Cl6(153)		1	Y	0.08032	0.08183	1.9
14	Cl5(105)		1	Y	0.08024	0.08013	-0.1
15	Cl6(138)		1	Y	0.08032	0.07636	-4.9
16	Cl7(187)		1	Y	0.08032	0.07819	-2.7
17	Cl6(128)		1	Y	0.08032	0.07553	-6.0
18	Cl7(180)		1	Y	0.08032	0.07926	-1.3
19	Cl7(170)		1	Y	0.08032	0.07915	-1.5
20	Cl8(195)		1	Y	0.08032	0.08239	2.6
21	Cl9(206)		1	Y	0.08016	0.08312	3.7
22	Cl10(209)		1	Y	0.08032	0.08448	5.2
24	Cl5(96)	I	2	-			
25	Cl2(8)		2	Y	0.08016	0.06939	-13.4
26	Cl3(18)		2	Y	0.08032	0.07854	-2.2
27	Cl3(34)	s	2	Y	0.08000	0.07284	-8.9
28	Cl3(28)		2	Y	0.08032	0.06965	-13.3
29	Cl4(52)		2	Y	0.08008	0.07157	-10.6
30	Cl4(44)		2	Y	0.08032	0.08647	7.7
31	Cl4(66)		2	Y	0.08016	0.07508	-6.3
32	Cl5(101)		2	Y	0.08016	0.07668	-4.3
33	Cl6(161)	I	2	-			
34	Cl6(152)	s	2	Y	0.08032	0.07745	-3.6
35	Cl5(118)		2	Y	0.08032	0.08127	1.2
36	Cl6(153)		2	Y	0.08032	0.07721	-3.9
37	Cl5(105)		2	Y	0.08024	0.07631	-4.9
38	Cl6(138)		2	Y	0.08032	0.08855	10.2
39	Cl7(187)		2	Y	0.08032	0.08160	1.6
40	Cl6(128)		2	Y	0.08032	0.08075	0.5
41	Cl7(180)		2	Y	0.08032	0.08334	3.8
42	Cl7(170)		2	Y	0.08032	0.08292	3.2
43	Cl8(195)		2	Y	0.08032	0.08547	6.4
44	Cl9(206)		2	Y	0.08016	0.08803	9.8

CCV Summary Report

Batch: 14-0497 Data Set: DP-14-0679
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED, TISSUE
Calibration File: MM0417C.M Last Updated: 11/14/2014 9:30:00 AM

M7592.D

IE08 mid

11/15/2014 00:54

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
45	Cl10(209)		2	Y	0.08032	0.08972	11.7

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: 5.8
Time Check: < 24

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

CCV Summary Report

Batch: 14-0497 Data Set: DP-14-0679
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED, TISSUE
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

No:	Analyte:	Type:	Col:	MQO:	CAL	M7581.D		M7603.D	
						MID	% Diff	MID	% Diff
						IE07 mid	IE07 mid		
						11/14/2014 16:44	11/15/2014 09:03		
1	Cl5(96)	I	1	-					
2	Cl5(101)		1	Y	0.04008	0.03970	-0.9	0.03983	-0.6
4	Cl5(96)	I	2	-					
5	Cl5(101)		2	Y	0.04008	0.04080	1.8	0.04073	1.6
MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.						Mean PD:	1.4	1.1	
						Time Check:	< 24	< 24	

CCV Acceptance Criteria:

Frequency Hours:	24	Qual:	N
Mean PD(%):	15	Qual:	N
Individual PD(%):	20	Qual:	N

CCV Summary Report

Batch: 14-0497 Data Set: DP-14-0679
Project Test Code: Master 128(S) SOP_NO: 5-128-13
Project Name: USACE/NAE - New Bedford Harbor LTM Study Project Number: 100053747

Matrix: SED, TISSUE
Calibration File: MM0417F.M Last Updated: 12/5/2014 3:22:00 PM

M7592.D
IE08 mid
11/15/2014 00:54

No:	Analyte:	Type:	Col:	MQO:	CAL	MID	% Diff
1	Cl5(96)	I	1	-			
2	Cl5(101)		1	Y	0.08016	0.07859	-2.0
4	Cl5(96)	I	2	-			
5	Cl5(101)		2	Y	0.08016	0.07255	-9.5

MQO: Only compounds flagged with "Y" will be counted towards MQO exceedences.

Mean PD: **5.8**
Time Check: **< 24**

CCV Acceptance Criteria:

Frequency Hours:	<u>24</u>	Qual:	<u>N</u>
Mean PD(%):	<u>15</u>	Qual:	<u>N</u>
Individual PD(%):	<u>20</u>	Qual:	<u>N</u>

Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 RIS/SIS Mult : NA
 Total Cpnds : 45

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound	IE03	IE05	IE06	IE07	IE08	IE10
1 I Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2 Cl2(8)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3 Cl3(18)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
4 s Cl3(34)	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
5 Cl3(28)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
6 Cl4(52)	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
7 Cl4(44)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
8 Cl4(66)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
9 Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
10 I Cl6(161)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
11 s Cl6(152)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
12 Cl5(118)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
13 Cl6(153)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
14 Cl5(105)	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
15 Cl6(138)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
16 Cl7(187)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
17 Cl6(128)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
18 Cl7(180)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
19 Cl7(170)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
20 Cl8(195)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
21 Cl9(206)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
22 Cl10(209)	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
23 Signal #2	-----	-----	-----	-----	-----	-----
24 I Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
25 Cl2(8) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
26 Cl3(18) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
27 s Cl3(34) #2	0.00240	0.01040	0.02000	0.04000	0.08000	0.32000
28 Cl3(28) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
29 Cl4(52) #2	0.00240	0.01041	0.02002	0.04004	0.08008	0.32032
30 Cl4(44) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
31 Cl4(66) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
32 Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
33 I Cl6(161) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
34 s Cl6(152) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
35 Cl5(118) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
36 Cl6(153) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
37 Cl5(105) #2	0.00241	0.01043	0.02006	0.04012	0.08024	0.32096
38 Cl6(138) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
39 Cl7(187) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
40 Cl6(128) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
41 Cl7(180) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
42 Cl7(170) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
43 Cl8(195) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128
44 Cl9(206) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
45 Cl10(209) #2	0.00241	0.01044	0.02008	0.04016	0.08032	0.32128

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015

Approval Date: Not Approved
Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
Last Updated : 9/8/2014 2:00:05 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
Last Updated : 9/8/2014 2:00:06 PM
Create Date : Sep 8 2014 12:00AM KM
Expire Date : 7/25/2015
Approval Date: Not Approved
Override Date: No Override

Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:28:41 2014
 Response via : Initial Calibration
 RIS/SIS Mult : 1.000
 Total Cpnds : 5

IE03 =M7205.D IE05 =M7207.D IE06 =M7208.D IE07 =M7209.D
 IE08 =M7210.D IE10 =M7212.D

Compound		IE03	IE05	IE06	IE07	IE08	IE10
1 I	Cl5(96)	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
2	Cl5(101)	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064
3	Signal #2	-----	-----	-----	-----	-----	-----
4 I	Cl5(96) #2	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000
5	Cl5(101) #2	0.00240	0.01042	0.02004	0.04008	0.08016	0.32064

Standards Loaded From LIMS

Solution ID : IE03 - 5-128 ECD ICAL - L1
 Last Updated : 9/8/2014 1:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE05 - 5-128 ECD ICAL - L3
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE06 - 5-128 ECD ICAL - L4
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE07 - 5-128 ECD ICAL - L5
 Last Updated : 9/8/2014 2:00:05 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE08 - 5-128 ECD ICAL - L6
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Solution ID : IE10 - 5-128 ECD ICAL - L8
 Last Updated : 9/8/2014 2:00:06 PM
 Create Date : Sep 8 2014 12:00AM KM
 Expire Date : 7/25/2015
 Approval Date: Not Approved
 Override Date: No Override

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2021371m	0.10000	ng
10) I C16(161)	23.21	4304957	0.10000	ng
24) I C15(96) #2	20.51	12822282m	0.10000	ng
33) I C16(161) #2	26.79	28199596m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	119959m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
11) s C16(152)	20.48	106015	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
27) s C13(34) #2	16.48	687843m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
34) s C16(152) #2	23.58	473925m	BelowCal	ng
Spiked Amount	0.0024	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	49812m	BelowCal	ng
3) C13(18)	12.13	63919m	BelowCal	ng
5) C13(28)	14.21	91859m	BelowCal	ng
6) C14(52)	15.84	129752	BelowCal	ng
7) C14(44)	16.70	95909	BelowCal	ng
8) C14(66)	18.60	103819m	BelowCal	ng
9) C15(101)	19.73	90878m	BelowCal	ng
12) C15(118)	22.40	106241m	BelowCal	ng
13) C16(153)	23.43 TW	91576m	BelowCal	ng
14) C15(105)	23.44 TW	124823m	BelowCal	ng
15) C16(138)	24.53	127136m	BelowCal	ng
16) C17(187)	25.29	111442m	BelowCal	ng
17) C16(128)	25.63	120454m	BelowCal	ng
18) C17(180)	27.16	127788	BelowCal	ng
19) C17(170)	27.96	138646m	BelowCal	ng
20) C18(195)	29.04	129501	BelowCal	ng
21) C19(206)	30.30	121956m	BelowCal	ng
22) C110(209)	30.90	102714m	BelowCal	ng
25) C12(8) #2	13.11	291232m	BelowCal	ng
26) C13(18) #2	15.00	430280m	BelowCal	ng
28) C13(28) #2	17.76	635375m	BelowCal	ng
29) C14(52) #2	19.15f	407881m	BelowCal	ng
30) C14(44) #2	19.96	700530m	BelowCal	ng
31) C14(66) #2	22.36	702095m	BelowCal	ng
32) C15(101) #2	23.30f	369053m	BelowCal	ng
35) C15(118) #2	26.37	931211m	BelowCal	ng
36) C16(153) #2	26.93	730887	BelowCal	ng
37) C15(105) #2	27.20	816392	BelowCal	ng
38) C16(138) #2	27.78	461727m	BelowCal	ng
39) C17(187) #2	28.14	667680	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:27:48 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:27:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
40)	Cl6(128) #2	28.54	880477m	BelowCal ng
41)	Cl7(180) #2	29.58	788251m	BelowCal ng
42)	Cl7(170) #2	30.21	800002m	BelowCal ng
43)	Cl8(195) #2	31.08	715719m	BelowCal ng
44)	Cl9(206) #2	32.18	637238m	BelowCal ng
45)	Cl10(209) #2	32.62	518551m	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
10) I C16(161)	23.21	4562564	0.10000	ng
24) I C15(96) #2	20.51	12416297m	0.10000	ng
33) I C16(161) #2	26.79	27129752m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.39	297705	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
11) s C16(152)	20.48	348526	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
27) s C13(34) #2	16.47	1801754m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
34) s C16(152) #2	23.57	1960933m	BelowCal	ng
Spiked Amount	0.0104	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	180784	BelowCal	ng
3) C13(18)	12.12	242567	BelowCal	ng
5) C13(28)	14.21	356002	BelowCal	ng
6) C14(52)	15.83	330341	BelowCal	ng
7) C14(44)	16.70	371149	BelowCal	ng
8) C14(66)	18.60	419278	BelowCal	ng
9) C15(101)	19.73	349240m	BelowCal	ng
12) C15(118)	22.39	435665	BelowCal	ng
13) C16(153)	23.43 TW	390283m	BelowCal	ng
14) C15(105)	23.44 TW	495013m	BelowCal	ng
15) C16(138)	24.54	508129	BelowCal	ng
16) C17(187)	25.29	449817	BelowCal	ng
17) C16(128)	25.63	436637m	BelowCal	ng
18) C17(180)	27.16	515383	BelowCal	ng
19) C17(170)	27.96	571467	BelowCal	ng
20) C18(195)	29.04	524255m	BelowCal	ng
21) C19(206)	30.30	492822m	BelowCal	ng
22) C110(209)	30.90	411674m	BelowCal	ng
25) C12(8) #2	13.11	1082243m	BelowCal	ng
26) C13(18) #2	14.99	1474380m	BelowCal	ng
28) C13(28) #2	17.76	2242630m	BelowCal	ng
29) C14(52) #2	19.14	1313663m	BelowCal	ng
30) C14(44) #2	19.96	2184906m	BelowCal	ng
31) C14(66) #2	22.36	2512274m	BelowCal	ng
32) C15(101) #2	23.22f	2401459m	BelowCal	ng
35) C15(118) #2	26.34	1802006m	BelowCal	ng
36) C16(153) #2	26.93	2453717	BelowCal	ng
37) C15(105) #2	27.20	2870795	BelowCal	ng
38) C16(138) #2	27.78	1892629m	BelowCal	ng
39) C17(187) #2	28.14	2289736	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:21 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:30:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	3074334	BelowCal	ng
41)	Cl7(180) #2	29.58	2699532	BelowCal	ng
42)	Cl7(170) #2	30.21	2859094m	BelowCal	ng
43)	Cl8(195) #2	31.08	2571011m	BelowCal	ng
44)	Cl9(206) #2	32.18	2275330m	BelowCal	ng
45)	Cl10(209) #2	32.62	1828475m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
10) I C16(161)	23.21	4815577	0.10000	ng
24) I C15(96) #2	20.51	13716870m	0.10000	ng
33) I C16(161) #2	26.79	29503850m	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	526303	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
11) s C16(152)	20.48	653892	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
27) s C13(34) #2	16.47	3296041m	BelowCal	ng
Spiked Amount	0.0200	Recovery	=	0.00%
34) s C16(152) #2	23.58	3413733m	BelowCal	ng
Spiked Amount	0.0201	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.20	333163	BelowCal	ng
3) C13(18)	12.12	432057	BelowCal	ng
5) C13(28)	14.21	687914	BelowCal	ng
6) C14(52)	15.83	566807	BelowCal	ng
7) C14(44)	16.70	718063	BelowCal	ng
8) C14(66)	18.60	781317	BelowCal	ng
9) C15(101)	19.73	762207m	BelowCal	ng
12) C15(118)	22.39	822121	0.03093	ng
13) C16(153)	23.43 TW	582042m	BelowCal	ng
14) C15(105)	23.44 TW	965663m	BelowCal	ng
15) C16(138)	24.53	972641	BelowCal	ng
16) C17(187)	25.29	855745	BelowCal	ng
17) C16(128)	25.63	864076m	BelowCal	ng
18) C17(180)	27.16	964577	BelowCal	ng
19) C17(170)	27.96	1081580	BelowCal	ng
20) C18(195)	29.04	1016052	0.02214	ng
21) C19(206)	30.30 e	959902m	BelowCal	ng
22) C110(209)	30.90	792978	BelowCal	ng
25) C12(8) #2	13.10	2106184m	BelowCal	ng
26) C13(18) #2	14.99	2769502m	BelowCal	ng
28) C13(28) #2	17.76	4386422m	BelowCal	ng
29) C14(52) #2	19.14	2862174m	BelowCal	ng
30) C14(44) #2	19.96	4484836m	BelowCal	ng
31) C14(66) #2	22.35	4845930m	BelowCal	ng
32) C15(101) #2	23.22f	5513291m	BelowCal	ng
35) C15(118) #2	26.35	4335255m	BelowCal	ng
36) C16(153) #2	26.93	4720338	1858066.56915	ng
37) C15(105) #2	27.20	5791618	1122307.10620	ng
38) C16(138) #2	27.78	3691173m	BelowCal	ng
39) C17(187) #2	28.14	4540027	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:27 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	6164428	BelowCal	ng
41)	Cl7(180) #2	29.58	5451699	BelowCal	ng
42)	Cl7(170) #2	30.21	5828332m	1341992.36163	ng
43)	Cl8(195) #2	31.08	5312720	BelowCal	ng
44)	Cl9(206) #2	32.18	4740147m	BelowCal	ng
45)	Cl10(209) #2	32.62	3772500m	1559880.63544	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
10) I C16(161)	23.21	5366502	0.10000	ng
24) I C15(96) #2	20.51	14992953m	0.10000	ng
33) I C16(161) #2	26.79	34497986	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	990336	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
11) s C16(152)	20.48	1280995	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
27) s C13(34) #2	16.47	6281919m	BelowCal	ng
Spiked Amount	0.0400	Recovery	=	0.00%
34) s C16(152) #2	23.58	7591525m	BelowCal	ng
Spiked Amount	0.0402	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	e	607269	BelowCal ng
3) C13(18)	12.12	e	758928	BelowCal ng
5) C13(28)	14.21	e	1349346	BelowCal ng
6) C14(52)	15.83	e	1019304	BelowCal ng
7) C14(44)	16.70	e	1370610	4937947.47625 ng
8) C14(66)	18.60	e	1544814	BelowCal ng
9) C15(101)	19.73	e	1552699m	BelowCal ng
12) C15(118)	22.39	e	1625326	BelowCal ng
13) C16(153)	23.43	TW	1671077m	BelowCal ng
14) C15(105)	23.44	TW	2067241m	BelowCal ng
15) C16(138)	24.53	E	1975640	BelowCal ng
16) C17(187)	25.29	e	1704362m	BelowCal ng
17) C16(128)	25.63	e	1845001m	BelowCal ng
18) C17(180)	27.16	E	2019174m	BelowCal ng
19) C17(170)	27.96	E	2282709	3008040.19192 ng
20) C18(195)	29.04	E	2138682m	BelowCal ng
21) C19(206)	30.30	E	2074698m	BelowCal ng
22) C110(209)	30.90	E	1700197m	BelowCal ng
25) C12(8) #2	13.10	e	4038278m	BelowCal ng
26) C13(18) #2	14.99	e	4609294m	BelowCal ng
28) C13(28) #2	17.76	e	8581359m	2635734.36911 ng
29) C14(52) #2	19.14	e	4960711m	BelowCal ng
30) C14(44) #2	19.96	e	8717176m	1574158.07943 ng
31) C14(66) #2	22.36	e	9936993m	BelowCal ng
32) C15(101) #2	23.21f	e	12947398m	BelowCal ng
35) C15(118) #2	26.35	e	9808234m	BelowCal ng
36) C16(153) #2	26.93	E	9577231	5152267.10485 ng
37) C15(105) #2	27.20	E	12760987	3375570.13183 ng
38) C16(138) #2	27.78	e	8526537m	1389497.67562 ng
39) C17(187) #2	28.14	E	9590626	BelowCal ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:33 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	13380771	BelowCal ng
41)	Cl7(180) #2	29.58	E	11878441m	BelowCal ng
42)	Cl7(170) #2	30.21	E	12986040m	4087411.97930 ng
43)	Cl8(195) #2	31.08	E	11911883m	BelowCal ng
44)	Cl9(206) #2	32.18	E	10701956m	BelowCal ng
45)	Cl10(209) #2	32.62	E	8387432m	5983940.61406 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
10) I C16(161)	23.21	5424577	0.10000	ng
24) I C15(96) #2	20.51	15446142m	0.10000	ng
33) I C16(161) #2	26.79	34872167	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1861197	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
11) s C16(152)	20.48	2391536	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
27) s C13(34) #2	16.47	12156621m	BelowCal	ng
Spiked Amount	0.0800	Recovery	=	0.00%
34) s C16(152) #2	23.57	13279030m	BelowCal	ng
Spiked Amount	0.0803	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 1130878	BelowCal	ng
3) C13(18)	12.12	E 1399997	BelowCal	ng
5) C13(28)	14.21	E 2563059	BelowCal	ng
6) C14(52)	15.83	E 1879706	BelowCal	ng
7) C14(44)	16.70	E 2546734m	8209713.15303	ng
8) C14(66)	18.60	E 2898127	BelowCal	ng
9) C15(101)	19.74	E 2892299m	BelowCal	ng
12) C15(118)	22.39	E 2978206	BelowCal	ng
13) C16(153)	23.44	TW e 2876946m	BelowCal	ng
14) C15(105)	23.45	TW e 3582092m	1460512.29312	ng
15) C16(138)	24.54	E 3695490	BelowCal	ng
16) C17(187)	25.29	E 3239289	BelowCal	ng
17) C16(128)	25.64	E 3673746m	3005443.36077	ng
18) C17(180)	27.15	E 3855848m	BelowCal	ng
19) C17(170)	27.96	E 4378231	5123824.53354	ng
20) C18(195)	29.04	E 4116319m	BelowCal	ng
21) C19(206)	30.31	E 3960506m	BelowCal	ng
22) C110(209)	30.90	E 3217630m	BelowCal	ng
25) C12(8) #2	13.10	E 7701304	BelowCal	ng
26) C13(18) #2	14.99	E 8745402m	BelowCal	ng
28) C13(28) #2	17.76	E 16942159	4721046.44848	ng
29) C14(52) #2	19.14	E 9969394	3586542.90657	ng
30) C14(44) #2	19.96	E 17386149m	5402544.89334	ng
31) C14(66) #2	22.35	E 19075871m	BelowCal	ng
32) C15(101) #2	23.21f	E 25811518m	BelowCal	ng
35) C15(118) #2	26.35	e 16530172m	BelowCal	ng
36) C16(153) #2	26.93	E 17723976	8475069.04022	ng
37) C15(105) #2	27.20	E 24719069	5584053.95798	ng
38) C16(138) #2	27.78	E 17133888m	4026737.36316	ng
39) C17(187) #2	28.14	E 18398636	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:39 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	26047859	BelowCal ng
41)	Cl7(180) #2	29.58	E	23443478m	BelowCal ng
42)	Cl7(170) #2	30.21	E	25601551m	6820215.95092 ng
43)	Cl8(195) #2	31.08	E	23548017m	BelowCal ng
44)	Cl9(206) #2	32.18	E	21216572m	BelowCal ng
45)	Cl10(209) #2	32.62	E	16438463m	10094597.27940 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2857033m	0.10000	ng
10) I C16(161)	23.21	5785136	0.10000	ng
24) I C15(96) #2	20.51	15534608m	0.10000	ng
33) I C16(161) #2	26.79	28894537	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6582490m	BelowCal	ng
Spiked Amount	0.3200	Recovery	=	0.00%
11) s C16(152)	20.48	8920810	BelowCal	ng
Spiked Amount	0.3213	Recovery	=	0.00%
27) s C13(34) #2	16.47	39634387m	BelowCal	ng
Spiked Amount	0.3200	Recovery	=	0.00%
34) s C16(152) #2	23.57	49764814m	BelowCal	ng
Spiked Amount	0.3213	Recovery	=	0.00%
Target Compounds				
2) C12(8)	10.21	E 3802803	BelowCal	ng
3) C13(18)	12.12	E 4625770	BelowCal	ng
5) C13(28)	14.20	E 9305861	BelowCal	ng
6) C14(52)	15.83	E 6491550m	BelowCal	ng
7) C14(44)	16.70	E 9213228m	16878676.73504	ng
8) C14(66)	18.60	E 10581706	BelowCal	ng
9) C15(101)	19.74	E 11214785m	BelowCal	ng
12) C15(118)	22.39	E 10845273	BelowCal	ng
13) C16(153)	23.44	TW E 11086255m	BelowCal	ng
14) C15(105)	23.45	TW E 12238036m	4834222.71684	ng
15) C16(138)	24.54	E 14181010	BelowCal	ng
16) C17(187)	25.28	E 12362255m	BelowCal	ng
17) C16(128)	25.63	E 13614003m	7619432.15592	ng
18) C17(180)	27.16	E 15356923	BelowCal	ng
19) C17(170)	27.96	E 17491960	11231671.25949	ng
20) C18(195)	29.04	E 16570469m	BelowCal	ng
21) C19(206)	30.30	E 15913312m	BelowCal	ng
22) C110(209)	30.90	E 12593895m	BelowCal	ng
25) C12(8) #2	13.10	E 24205484m	BelowCal	ng
26) C13(18) #2	14.99	E 27041957m	BelowCal	ng
28) C13(28) #2	17.76	E 56387566m	9817113.52330	ng
29) C14(52) #2	19.14	E 31213496m	8327658.06829	ng
30) C14(44) #2	19.96	E 56797595m	12385262.50102	ng
31) C14(66) #2	22.36	E 65508405m	BelowCal	ng
32) C15(101) #2	23.21f	E 73990498m	BelowCal	ng
35) C15(118) #2	26.34	E 53052856m	BelowCal	ng
36) C16(153) #2	26.93	E 58782173	19272949.92145	ng
37) C15(105) #2	27.20	E 87183647	12882056.53676	ng
38) C16(138) #2	27.78	E 63446136m	10766758.70710	ng
39) C17(187) #2	28.14	E 63573730	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Oct 28 08:32:43 2014 Quant Results File: MM0417B.RES

Quant Method : I:\M\DATA\MM0417B.M (Chemstation Integrator)
 Title : NBH
 Last Update : Tue Oct 28 08:32:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	E	91431997	BelowCal ng
41)	Cl7(180) #2	29.58	E	83277221m	BelowCal ng
42)	Cl7(170) #2	30.21	E	91217127m	15760612.61828 ng
43)	Cl8(195) #2	31.08	E	84844015m	BelowCal ng
44)	Cl9(206) #2	32.17	E	76001510m	BelowCal ng
45)	Cl10(209) #2	32.62	E	57560994m	23285632.07742 ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
10) I C16(161)	23.21	5353469	0.10000	ng	
24) I C15(96) #2	20.51	13969685m	0.10000	ng	
33) I C16(161) #2	26.78	30447371	0.10000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	1040909	0.04104	ng	2.6
Spiked Amount	0.0400	Recovery	=	102.60%	
11) s C16(152)	20.48	1350202	0.04329	ng	7.8
Spiked Amount	0.0402	Recovery	=	107.79%	
27) s C13(34) #2	16.47	6131122m	0.04171	ng	4.3
Spiked Amount	0.0400	Recovery	=	104.27%	
34) s C16(152) #2	23.57	6327177m	0.04129	ng	2.8
Spiked Amount	0.0402	Recovery	=	102.81%	
Target Compounds					
2) C12(8)	10.21	664551	0.04326	ng	8.1
3) C13(18)	12.12	802051	0.04152	ng	3.8
5) C13(28)	14.21	1396518	0.04098	ng	2.5
6) C14(52)	15.83	1070948	0.04112	ng	2.8
7) C14(44)	16.70	1426889m	0.04167	ng	4.2
8) C14(66)	18.60	1565208	0.04028	ng	0.7
9) C15(101)	19.73	1426993m	0.03706	ng	-7.3
12) C15(118)	22.39	1627776	0.04151	ng	3.8
13) C16(153)	23.43	1467714m	0.03933	ng	-1.7
14) C15(105)	23.45	1824192m	0.03778	ng	-5.5
15) C16(138)	24.53	2023467	0.04232	ng	5.8
16) C17(187)	25.29	1787515	0.04281	ng	7.0
17) C16(128)	25.63	1824156m	0.03935	ng	-1.6
18) C17(180)	27.15	2038700	0.04138	ng	3.4
19) C17(170)	27.96	2269675	0.04068	ng	1.7
20) C18(195)	29.04	2088594m	0.03989	ng	-0.3
21) C19(206)	30.30	1961931m	0.03884	ng	-2.9
22) C110(209)	30.90	1612364m	0.03909	ng	-2.3
25) C12(8) #2	13.10	3947204m	0.04248	ng	6.2
26) C13(18) #2	14.99	4351305m	0.03989	ng	-0.3
28) C13(28) #2	17.76	8214453m	0.04094	ng	2.3
29) C14(52) #2	19.14	4859257m	0.04058	ng	1.4
30) C14(44) #2	19.96	8466239m	0.04126	ng	3.1
31) C14(66) #2	22.35	9294328m	0.04096	ng	2.4
32) C15(101) #2	23.24	4934904m	0.03828	ng	-4.3
35) C15(118) #2	26.35	7705344m	0.03951	ng	-1.2
36) C16(153) #2	26.93	8835029	0.04347	ng	8.7
37) C15(105) #2	27.20	11200960m	0.04079	ng	2.0
38) C16(138) #2	27.78	7622194m	0.04108	ng	2.7
39) C17(187) #2	28.14	8806327	0.04269	ng	6.7

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 19 11:40:34 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Wed Nov 19 11:40:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	11964334m	0.04137	ng	3.4
41)	Cl7(180) #2	29.58	10533125m	0.04073	ng	1.8
42)	Cl7(170) #2	30.21	11398863m	0.04051	ng	1.3
43)	Cl8(195) #2	31.08	10207239m	0.03956	ng	-1.1
44)	Cl9(206) #2	32.18	9021058m	0.03879	ng	-3.0
45)	Cl10(209) #2	32.62	7069806m	0.03894	ng	-2.6

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7581.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0424\M7581.D\ECD2B.CH
 Acq On : 11-14-2014 04:44:21 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 08:54:26 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.40	2436917m	0.10000	ng
10) I C16(161)	23.21	5635758m	0.10000	ng
24) I C15(96) #2	20.52	15830647m	0.10000	ng
33) I C16(161) #2	26.79	36312008	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	959411m	0.03861	ng
Spiked Amount	0.0400	Recovery	=	96.52%
11) s C16(152)	20.48	1317698m	0.03982	ng
Spiked Amount	0.0402	Recovery	=	99.15%
27) s C13(34) #2	16.48	6530178m	0.03889	ng
Spiked Amount	0.0400	Recovery	=	97.23%
34) s C16(152) #2	23.58	7623201m	0.04175	ng
Spiked Amount	0.0402	Recovery	=	103.96%
Target Compounds				
2) C12(8)	10.21	600443m	0.03981	ng
3) C13(18)	12.13	792814m	0.04239	ng
5) C13(28)	14.21	1331400m	0.04015	ng
6) C14(52)	15.83	977893m	0.03817	ng
7) C14(44)	16.70	1323551m	0.03958	ng
8) C14(66)	18.60	1433905m	0.03776	ng
9) C15(101)	19.74	1552909m	0.04186	ng
12) C15(118)	22.39	1475787m	0.03520	ng
13) C16(153)	23.44 TW	1470491m	0.03735	ng
14) C15(105)	23.45 TW	1972037m	0.03890	ng
15) C16(138)	24.54	1978720m	0.03909	ng
16) C17(187)	25.29	1785925m	0.04046	ng
17) C16(128)	25.64	2032967m	0.04175	ng
18) C17(180)	27.16	2066800m	0.03976	ng
19) C17(170)	27.96	2301627m	0.03911	ng
20) C18(195)	29.04	2215813m	0.04021	ng
21) C19(206)	30.31	2115042m	0.03982	ng
22) C110(209)	30.90	1765150m	0.04073	ng
25) C12(8) #2	13.11	4071508m	0.03829	ng
26) C13(18) #2	14.99	4768665m	0.03835	ng
28) C13(28) #2	17.77	8255934m	0.03596	ng
29) C14(52) #2	19.15	5416893m	0.03985	ng
30) C14(44) #2	19.96	9360950m	0.04018	ng
31) C14(66) #2	22.36	9845591m	0.03809	ng
32) C15(101) #2	23.25	5544867m	0.03792	ng
35) C15(118) #2	26.36	9960431m	0.04316	ng
36) C16(153) #2	26.94	9824442	0.04026	ng
37) C15(105) #2	27.20	12298947	0.03743	ng
38) C16(138) #2	27.78	9280417m	0.04195	ng
39) C17(187) #2	28.14	10332711	0.04196	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7581.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0424\M7581.D\ECD2B.CH
 Acq On : 11-14-2014 04:44:21 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 08:54:26 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	13863683	0.04015	ng
41)	Cl7(180) #2	29.59	12344518m	0.04000	ng
42)	Cl7(170) #2	30.22	13297627m	0.03960	ng
43)	Cl8(195) #2	31.09	12505962m	0.04066	ng
44)	Cl9(206) #2	32.18	11501257m	0.04151	ng
45)	Cl10(209) #2	32.62	9273414m	0.04293	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7592.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0424\M7592.D\ECD2B.CH
 Acq On : 15 Nov 2014 12:54 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 08:54:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 08:54:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3196533	0.10000	ng
10) I C16(161)	23.22	7127913m	0.10000	ng
24) I C15(96) #2	20.52	18485755m	0.10000	ng
33) I C16(161) #2	26.79	41716767	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2311739	0.07751	ng
Spiked Amount	0.0800	Recovery	=	96.89%
11) s C16(152)	20.48	3112933	0.07873	ng
Spiked Amount	0.0803	Recovery	=	98.02%
27) s C13(34) #2	16.48	13378875m	0.07284	ng
Spiked Amount	0.0800	Recovery	=	91.05%
34) s C16(152) #2	23.57	15800091m	0.07745	ng
Spiked Amount	0.0803	Recovery	=	96.43%
Target Compounds				
2) C12(8)	10.21	1269323	0.06866	ng
3) C13(18)	12.13	1598267	0.06986	ng
5) C13(28)	14.21	3062205	0.07424	ng
6) C14(52)	15.84	2211776	0.07255	ng
7) C14(44)	16.70	3168753	0.07720	ng
8) C14(66)	18.60	3441391	0.07340	ng
9) C15(101)	19.74	3765248m	0.08078	ng
12) C15(118)	22.39	3482088m	0.06966	ng
13) C16(153)	23.45 TW	3935235m	0.08183	ng
14) C15(105)	23.46 TW	4813727m	0.08013	ng
15) C16(138)	24.54	4682573	0.07636	ng
16) C17(187)	25.29	4183330m	0.07819	ng
17) C16(128)	25.64	4540678m	0.07553	ng
18) C17(180)	27.16	5040122m	0.07926	ng
19) C17(170)	27.96	5712601m	0.07915	ng
20) C18(195)	29.04	5581046m	0.08239	ng
21) C19(206)	30.31	5433962m	0.08312	ng
22) C110(209)	30.90	4477057	0.08448	ng
25) C12(8) #2	13.11	8151568m	0.06939	ng
26) C13(18) #2	14.99	10345352m	0.07854	ng
28) C13(28) #2	17.76	17798827m	0.06965	ng
29) C14(52) #2	19.14	10765497m	0.07157	ng
30) C14(44) #2	19.97	22240672m	0.08647	ng
31) C14(66) #2	22.36	21637375m	0.07508	ng
32) C15(101) #2	23.24	12636361m	0.07668	ng
35) C15(118) #2	26.35	20643147m	0.08127	ng
36) C16(153) #2	26.94	20743471	0.07721	ng
37) C15(105) #2	27.20	28383886m	0.07631	ng
38) C16(138) #2	27.78	22754437m	0.08855	ng
39) C17(187) #2	28.14	22587452	0.08160	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7592.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0424\M7592.D\ECD2B.CH
 Acq On : 15 Nov 2014 12:54 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 08:54:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 08:54:25 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	31581348	0.08075	ng
41)	Cl7(180) #2	29.59	29274447	0.08334	ng
42)	Cl7(170) #2	30.22	31829402m	0.08292	ng
43)	Cl8(195) #2	31.09	30195091m	0.08547	ng
44)	Cl9(206) #2	32.18	28072736m	0.08803	ng
45)	Cl10(209) #2	32.62	22132202m	0.08972	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7603.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0424\M7603.D\ECD2B.CH
 Acq On : 11-15-2014 09:03:03 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 08:54:37 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 08:54:30 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3483421	0.10000	ng
10) I C16(161)	23.21	7856766m	0.10000	ng
24) I C15(96) #2	20.51	19099905m	0.10000	ng
33) I C16(161) #2	26.79	46749872	0.10000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1372584	0.03865	ng
Spiked Amount	0.0400	Recovery	=	96.63%
11) s C16(152)	20.48	1923497	0.04190	ng
Spiked Amount	0.0402	Recovery	=	104.33%
27) s C13(34) #2	16.47	7809416m	0.03850	ng
Spiked Amount	0.0400	Recovery	=	96.25%
34) s C16(152) #2	23.57	10151436m	0.04330	ng
Spiked Amount	0.0402	Recovery	=	107.82%
Target Compounds				
2) C12(8)	10.21	829981	0.03830	ng
3) C13(18)	12.12	1042862	0.03844	ng
5) C13(28)	14.21	1877061	0.03954	ng
6) C14(52)	15.83	1407349	0.03849	ng
7) C14(44)	16.70	1903784m	0.03985	ng
8) C14(66)	18.60	2056583	0.03790	ng
9) C15(101)	19.73	2129225m	0.04003	ng
12) C15(118)	22.39	2155199	0.03705	ng
13) C16(153)	23.44 TW	2083007m	0.03798	ng
14) C15(105)	23.45 TW	2658053m	0.03748	ng
15) C16(138)	24.53	2720464m	0.03851	ng
16) C17(187)	25.28	2491705m	0.04050	ng
17) C16(128)	25.63	2508648m	0.03678	ng
18) C17(180)	27.16	2879797	0.03974	ng
19) C17(170)	27.96	3234445	0.03944	ng
20) C18(195)	29.04	3083288m	0.04013	ng
21) C19(206)	30.30	2949327	0.03983	ng
22) C110(209)	30.90	2429092m	0.04018	ng
25) C12(8) #2	13.10	4766578m	0.03704	ng
26) C13(18) #2	14.99	5592276m	0.03708	ng
28) C13(28) #2	17.76	10230408m	0.03701	ng
29) C14(52) #2	19.14	6132136m	0.03714	ng
30) C14(44) #2	19.96	11180819m	0.03975	ng
31) C14(66) #2	22.35	12439948m	0.04003	ng
32) C15(101) #2	23.24	7336904m	0.04194	ng
35) C15(118) #2	26.35	12165725m	0.04074	ng
36) C16(153) #2	26.93	12307201	0.03906	ng
37) C15(105) #2	27.20	15727319m	0.03717	ng
38) C16(138) #2	27.78	11966951m	0.04201	ng
39) C17(187) #2	28.14	13147349	0.04144	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7603.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0424\M7603.D\ECD2B.CH
 Acq On : 11-15-2014 09:03:03 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 20 08:54:37 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Thu Nov 20 08:54:30 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	18105282	0.04075	ng
41)	Cl7(180) #2	29.58	16531801	0.04167	ng
42)	Cl7(170) #2	30.21	18046457m	0.04180	ng
43)	Cl8(195) #2	31.08	16600840m	0.04195	ng
44)	Cl9(206) #2	32.18	15122348m	0.04240	ng
45)	Cl10(209) #2	32.62	11979441m	0.04308	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7205.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0417\M7205.D\ECD2B.CH
 Acq On : 10-20-2014 06:46:57 PM Operator: RR
 Sample : IE03 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:34 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Nov 14 09:31:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2038180	0.10000	ng
4) I C15(96) #2	20.51	12872032m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	102746m	0.00162	ng
5) C15(101) #2	23.23	516701m	0.00035	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7207.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0417\M7207.D\ECD2B.CH
 Acq On : 10-20-2014 08:16:06 PM Operator: RR
 Sample : IE05 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:38 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2103011	0.10000	ng
4) I C15(96) #2	20.51	13386960	0.10000	ng
Target Compounds				
2) C15(101)	19.73	341674m	0.00915	ng
5) C15(101) #2	23.22	3258192m	0.02515	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7207.D MM0417F.M Fri Dec 05 16:10:55 2014

Signal #1 : I:\M\DATA\SM0417\M7208.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0417\M7208.D\ECD2B.CH
 Acq On : 10-20-2014 09:00:35 PM Operator: RR
 Sample : IE06 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2225995	0.10000	ng
4) I C15(96) #2	20.51	13612237m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	753837m	0.02114	ng
5) C15(101) #2	23.22	5441576m	0.04378	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7209.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0417\M7209.D\ECD2B.CH
 Acq On : 10-20-2014 09:45:07 PM Operator: RR
 Sample : IE07 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:46 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2400478	0.10000	ng
4) I C15(96) #2	20.51	14869473m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	1636592m	0.04499	ng
5) C15(101) #2	23.21	11842524m	0.08946	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS
 M7209.D MM0417F.M Fri Dec 05 16:10:58 2014

Signal #1 : I:\M\DATA\SM0417\M7210.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0417\M7210.D\ECD2B.CH
 Acq On : 20 Oct 2014 10:29 pm Operator: RR
 Sample : IE08 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:50 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:44 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2523572	0.10000	ng
4) I C15(96) #2	20.51	15494530m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	2973113m	0.08080	ng
5) C15(101) #2	23.21	25660002m	0.18179	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7212.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0417\M7212.D\ECD2B.CH
 Acq On : 20 Oct 2014 11:58 pm Operator: RR
 Sample : IE10 Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:15:54 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:15:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2539311m	0.10000	ng
4) I C15(96) #2	20.51	15194166m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	11042195m	0.36809	ng
5) C15(101) #2	23.22 e	68456197m	0.44286	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0417\M7213.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0417\M7213.D\ECD2B.CH
 Acq On : 21 Oct 2014 12:43 am Operator: RR
 Sample : HY06 ICC Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 05 15:24:15 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Fri Dec 05 15:22:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	

Internal Standards					
1) I C15(96)	17.39	2508888	0.10000	ng	
4) I C15(96) #2	20.51	13936712m	0.10000	ng	
Target Compounds					
2) C15(101)	19.73	1516710m	0.03859	ng	-3.5
5) C15(101) #2	23.21	11320633m	0.03850	ng	-3.8

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7581.D\ECD1A.CH Vial: 2
 Signal #2 : I:\M\DATA\SM0424\M7581.D\ECD2B.CH
 Acq On : 11-14-2014 04:44:21 PM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 13:01:58 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 13:01:52 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.40	2438735m	0.10000	ng
4) I C15(96) #2	20.52	15811867m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	1514385m	0.03970	ng
5) C15(101) #2	23.22	13593386m	0.04080	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7592.D\ECD1A.CH Vial: 13
 Signal #2 : I:\M\DATA\SM0424\M7592.D\ECD2B.CH
 Acq On : 15 Nov 2014 12:54 am Operator: RR
 Sample : IE08 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:48 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3196533	0.10000	ng
4) I C15(96) #2	20.52	18155079m	0.10000	ng
Target Compounds				
2) C15(101)	19.74	3793149m	0.07859	ng
5) C15(101) #2	23.21	26961876m	0.07255	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7603.D\ECD1A.CH Vial: 24
 Signal #2 : I:\M\DATA\SM0424\M7603.D\ECD2B.CH
 Acq On : 11-15-2014 09:03:03 AM Operator: RR
 Sample : IE07 mid Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:43:26 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:43:21 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3483421	0.10000	ng
4) I C15(96) #2	20.51	18994252m	0.10000	ng
Target Compounds				
2) C15(101)	19.73	2170047m	0.03983	ng
5) C15(101) #2	23.21	16300926m	0.04073	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7582.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0424\M7582.D\ECD2B.CH
 Acq On : 11-14-2014 05:28:55 PM Operator: RR
 Sample : CD588PB-P(0) Inst : INST. M
 Misc : Procedural Blank. Sodium Sulfate lot # 1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 11:13:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2164245	100.00000	ng
10) I C16(161)	23.22	4836853m	100.00000	ng
24) I C15(96) #2	20.52	14681353m	100.00000	ng
33) I C16(161) #2	26.79	34857967m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1918008	97.73931	ng
Spiked Amount	100.0000	Recovery	=	97.74%
11) s C16(152)	20.48	2692587	102.40069	ng
Spiked Amount	100.4000	Recovery	=	101.99%
27) s C13(34) #2	16.48	14113962m	99.88526	ng
Spiked Amount	100.0000	Recovery	=	99.89%
34) s C16(152) #2	23.62	19192299m	112.34149	ng
Spiked Amount	100.4000	Recovery	=	111.89%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7582.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0424\M7582.D\ECD2B.CH
 Acq On : 11-14-2014 05:28:55 PM Operator: RR
 Sample : CD588PB-P(0) Inst : INST. M
 Misc : Procedural Blank. Sodium Sulfate lot # 1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:38 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 11:13:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7583.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0424\M7583.D\ECD2B.CH
 Acq On : 11-14-2014 06:13:22 PM Operator: RR
 Sample : CD589LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample. Sodium Sulfa Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:44 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2270924	100.00000	ng	
10) I C16(161)	23.21	5378808m	100.00000	ng	
24) I C15(96) #2	20.52	15162087m	100.00000	ng	
33) I C16(161) #2	26.79	37142940	100.00000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	1922888m	92.77561	ng	93%
Spiked Amount	100.0000	Recovery	=	92.78%	
11) s C16(152)	20.48	2825005	96.14107	ng	96%
Spiked Amount	100.4000	Recovery	=	95.76%	
27) s C13(34) #2	16.48	14291607m	97.71017	ng	98%
Spiked Amount	100.0000	Recovery	=	97.71%	
34) s C16(152) #2	23.61	15583495m	85.86369	ng	86%
Spiked Amount	100.4000	Recovery	=	85.52%	
Target Compounds					
2) C12(8)	10.21	445676	30.57386	ng	82%
3) C13(18)	12.13	574104	31.43178	ng	84%
5) C13(28)	14.21	1023631m	32.48837	ng	87%
6) C14(52)	15.83	773038	31.22357	ng	83%
7) C14(44)	16.70	1072539	33.83702	ng	90%
8) C14(66)	18.60	1154711	32.11043	ng	86%
9) C15(101)	19.74	1327275m	38.15835	ng	102%
12) C15(118)	22.39	1299604	32.18199	ng	86%
13) C16(153)	23.44 TW	1085195m	28.52316	ng	76%
14) C15(105)	23.45 TW	1666021m	33.99972	ng	91%
15) C16(138)	24.54	1655448	33.89123	ng	90%
16) C17(187)	25.29	1453171	34.04556	ng	91%
17) C16(128)	25.64	1448851m	30.82869	ng	82%
18) C17(180)	27.16	1715503m	34.27047	ng	91%
19) C17(170)	27.96	1894397m	33.44761	ng	89%
20) C18(195)	29.04	1878013m	35.49339	ng	95%
21) C19(206)	30.31	1784305m	34.99887	ng	93%
22) C110(209)	30.90	1560940m	37.58436	ng	100%
25) C12(8) #2	13.11	3259111m	31.37526	ng	84%
26) C13(18) #2	14.99	3848907m	31.26749	ng	83%
28) C13(28) #2	17.76	6586458m	29.47835	ng	79%
29) C14(52) #2	19.15	4369881m	32.95341	ng	88%
30) C14(44) #2	19.96	7720480m	34.20032	ng	91%
31) C14(66) #2	22.36	8559904m	34.30902	ng	91%
32) C15(101) #2	23.24	5299665m	37.83851	ng	101%
35) C15(118) #2	26.35	7617413m	31.27768	ng	83%
36) C16(153) #2	26.94	8338100m	32.71743	ng	87%
37) C15(105) #2	27.20	11225285	33.22606	ng	89%
38) C16(138) #2	27.78	7937083m	35.02611	ng	93%
39) C17(187) #2	28.14	8958840	35.19734	ng	94%

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7583.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0424\M7583.D\ECD2B.CH
 Acq On : 11-14-2014 06:13:22 PM Operator: RR
 Sample : CD589LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample. Sodium Sulfa Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:44 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:37 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	12297873m	34.58667	ng	92%
41)	Cl7(180) #2	29.59	11157847m	35.18602	ng	94%
42)	Cl7(170) #2	30.22	11968286m	34.71789	ng	93%
43)	Cl8(195) #2	31.09	11408069m	36.17707	ng	96%
44)	Cl9(206) #2	32.18	10304820m	36.27821	ng	97%
45)	Cl10(209) #2	32.62	8626270m	38.94511	ng	104%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7584.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0424\M7584.D\ECD2B.CH
 Acq On : 11-14-2014 06:57:58 PM Operator: RR
 Sample : CD590MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:49 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2530448	100.00000	ng
10) I C16(161)	23.21	6206066	100.00000	ng
24) I C15(96) #2	20.51	15353413m	100.00000	ng
33) I C16(161) #2	26.79	37648654m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2122058	91.75847	ng
Spiked Amount	100.0000	Recovery	=	91.76%
11) s C16(152)	20.48	3128999	91.97913	ng
Spiked Amount	100.4000	Recovery	=	91.61%
27) s C13(34) #2	16.47	13686410m	91.81438	ng
Spiked Amount	100.0000	Recovery	=	91.81%
34) s C16(152) #2	23.62	19265426m	104.56902	ng
Spiked Amount	100.4000	Recovery	=	104.15%
Target Compounds				
2) C12(8)	10.21	116696	3.87695	ng
3) C13(18)	12.13	146899	3.16334	ng
5) C13(28)	14.20	282337m	6.02863	ng
6) C14(52)	15.83	221405	3.17325	ng
7) C14(44)	16.70	286879m	5.51623	ng
8) C14(66)	18.60	328139m	5.97557	ng
9) C15(101)	19.74	356000m	7.68392	ng
12) C15(118)	22.39	426235m	6.83523	ng
13) C16(153)	23.43 TW	314555m	6.29957	ng
14) C15(105)	23.44 TW	461452m	6.07228	ng
15) C16(138)	24.54	469436	6.38459	ng
16) C17(187)	25.29	421101	6.61257	ng
17) C16(128)	25.63	349680m	5.83256	ng
18) C17(180)	27.16	472633	6.60670	ng
19) C17(170)	27.96	515842	6.52343	ng
20) C18(195)	29.04	492193	6.76769	ng
21) C19(206)	30.31	453034m	6.57577	ng
22) C110(209)	30.90	409843m	7.23337	ng
25) C12(8) #2	13.10	804186m	5.47551	ng
26) C13(18) #2	14.99	1009888m	3.93908	ng
28) C13(28) #2	17.76	1520111m	5.03281	ng
29) C14(52) #2	19.15	1397082m	8.39905	ng
30) C14(44) #2	19.96	1658942m	5.69279	ng
31) C14(66) #2	22.36	2075430m	6.51777	ng
32) C15(101) #2	23.25	1412997m	6.74570	ng
35) C15(118) #2	26.36	2282343m	6.58490	ng
36) C16(153) #2	26.94	2265068	5.72844	ng
37) C15(105) #2	27.20	2607736	6.10564	ng
38) C16(138) #2	27.78	2010467m	8.07574	ng
39) C17(187) #2	28.14	2306028	6.87467	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7584.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0424\M7584.D\ECD2B.CH
 Acq On : 11-14-2014 06:57:58 PM Operator: RR
 Sample : CD590MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:49 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:43 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2887440m	6.39616	ng
41)	Cl7(180) #2	29.59	2651470m	6.83730	ng
42)	Cl7(170) #2	30.21	2752886m	6.74278	ng
43)	Cl8(195) #2	31.09	2620863m	7.20674	ng
44)	Cl9(206) #2	32.18	2398133m	7.48383	ng
45)	Cl10(209) #2	32.62	2047772m	8.00221	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7585.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0424\M7585.D\ECD2B.CH
 Acq On : 11-14-2014 07:42:36 PM Operator: RR
 Sample : CD591MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:53 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2263263	100.00000	ng
10) I C16(161)	23.21	5152353	100.00000	ng
24) I C15(96) #2	20.51	14964213m	100.00000	ng
33) I C16(161) #2	26.79	36919109	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1886137m	91.10418	ng
Spiked Amount	100.0000	Recovery	=	91.10%
11) s C16(152)	20.48	2744000	97.60210	ng
Spiked Amount	100.4000	Recovery	=	97.21%
27) s C13(34) #2	16.48	13674813m	94.39054	ng
Spiked Amount	100.0000	Recovery	=	94.39%
34) s C16(152) #2	23.62	18388513m	101.82533	ng
Spiked Amount	100.4000	Recovery	=	101.42%
Target Compounds				
2) C12(8)	10.21	110686	4.36068	ng
3) C13(18)	12.12	153695	4.55674	ng
5) C13(28)	14.21	258141	6.21834	ng
6) C14(52)	15.83	212825	3.88256	ng
7) C14(44)	16.69	249323m	5.26844	ng
8) C14(66)	18.60	292323	5.94063	ng
9) C15(101)	19.73	299539m	7.12181	ng
12) C15(118)	22.39	346386m	6.62541	ng
13) C16(153)	23.43	287635m	7.04875	ng
14) C15(105)	23.45	375042m	5.89075	ng
15) C16(138)	24.54	403253	6.69247	ng
16) C17(187)	25.29	355598	6.76874	ng
17) C16(128)	25.63	267623m	5.32241	ng
18) C17(180)	27.16	387568m	6.50082	ng
19) C17(170)	27.96	428248	6.52323	ng
20) C18(195)	29.04	414645m	6.89137	ng
21) C19(206)	30.31	382453m	6.71007	ng
22) C110(209)	30.90	347709m	7.42735	ng
25) C12(8) #2	13.10	802616m	5.67166	ng
26) C13(18) #2	14.99	960228m	3.71052	ng
28) C13(28) #2	17.76	1602974m	5.61523	ng
29) C14(52) #2	19.15	1264264m	7.60506	ng
30) C14(44) #2	19.96	1536160m	5.31701	ng
31) C14(66) #2	22.36	2066003m	6.70173	ng
32) C15(101) #2	23.25	1328891m	6.34922	ng
35) C15(118) #2	26.36	2363946m	7.16574	ng
36) C16(153) #2	26.93	2073017m	5.06758	ng
37) C15(105) #2	27.20	2409303m	5.63519	ng
38) C16(138) #2	27.78	1741525m	7.01275	ng
39) C17(187) #2	28.14	2199646	6.60977	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7585.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0424\M7585.D\ECD2B.CH
 Acq On : 11-14-2014 07:42:36 PM Operator: RR
 Sample : CD591MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:53 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:48 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2710662m	6.03035	ng
41)	Cl7(180) #2	29.59	2549440m	6.66644	ng
42)	Cl7(170) #2	30.21	2678474m	6.67805	ng
43)	Cl8(195) #2	31.09	2470276m	6.87315	ng
44)	Cl9(206) #2	32.18	2179825m	6.84997	ng
45)	Cl10(209) #2	32.62	1882155m	7.40366	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7586.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0424\M7586.D\ECD2B.CH
 Acq On : 11-14-2014 08:27:09 PM Operator: RR
 Sample : CD592MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:52 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2569124m	100.00000	ng
10) I C16(161)	23.21	6000805m	100.00000	ng
24) I C15(96) #2	20.51	15234569m	100.00000	ng
33) I C16(161) #2	26.78	38036624m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1983040m	83.47879	ng
Spiked Amount	100.0000	Recovery	=	83.48%
11) s C16(152)	20.48	2878435	87.14791	ng
Spiked Amount	100.4000	Recovery	=	86.80%
27) s C13(34) #2	16.47	12747654m	85.57017	ng
Spiked Amount	100.0000	Recovery	=	85.57%
34) s C16(152) #2	23.62	15077767m	81.10110	ng
Spiked Amount	100.4000	Recovery	=	80.78%
Target Compounds				
2) C12(8)	10.21	115689	3.68864	ng
3) C13(18)	12.12	152619m	3.35434	ng
5) C13(28)	14.21	261947m	5.29379	ng
6) C14(52)	15.83	215574m	2.78448	ng
7) C14(44)	16.70	257467m	4.50132	ng
8) C14(66)	18.60	387323	7.40377	ng
9) C15(101)	19.73	313349m	6.42251	ng
12) C15(118)	22.39	373635m	5.90817	ng
13) C16(153)	23.43	259395m	5.21351	ng
14) C15(105)	23.45	474916m	6.62800	ng
15) C16(138)	24.54	416828m	5.65989	ng
16) C17(187)	25.29	373204m	5.85309	ng
17) C16(128)	25.63	327186m	5.62153	ng
18) C17(180)	27.16	422538m	5.95656	ng
19) C17(170)	27.96	464691m	5.95853	ng
20) C18(195)	29.04	466959m	6.60975	ng
21) C19(206)	30.31	442408m	6.65504	ng
22) C110(209)	30.90	402760m	7.37802	ng
25) C12(8) #2	13.10	750468m	4.98945	ng
26) C13(18) #2	14.99	931321m	3.27913	ng
28) C13(28) #2	17.76	1579665m	5.36885	ng
29) C14(52) #2	19.15	1184657m	6.78581	ng
30) C14(44) #2	19.96	1779042m	6.30104	ng
31) C14(66) #2	22.36	1906094m	5.87673	ng
32) C15(101) #2	23.24	1368916m	6.47842	ng
35) C15(118) #2	26.36	2027870m	5.33966	ng
36) C16(153) #2	26.93	1962462m	4.31718	ng
37) C15(105) #2	27.20	2338890m	5.19252	ng
38) C16(138) #2	27.78	1543992m	5.88877	ng
39) C17(187) #2	28.14	2121915m	6.00823	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7586.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0424\M7586.D\ECD2B.CH
 Acq On : 11-14-2014 08:27:09 PM Operator: RR
 Sample : CD592MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:54:57 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:52 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2565977m	5.36386	ng
41)	Cl7(180) #2	29.59	2419520m	5.98820	ng
42)	Cl7(170) #2	30.21	2579315m	6.14048	ng
43)	Cl8(195) #2	31.09	2409464m	6.43314	ng
44)	Cl9(206) #2	32.18	2164347m	6.55822	ng
45)	Cl10(209) #2	32.62	1883135m	7.14530	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7587.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0424\M7587.D\ECD2B.CH
 Acq On : 11-14-2014 09:11:36 PM Operator: RR
 Sample : CD593MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:02 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:57 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2439258	100.00000	ng
10) I C16(161)	23.21	5663145m	100.00000	ng
24) I C15(96) #2	20.51	15372670m	100.00000	ng
33) I C16(161) #2	26.79	37000796m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1901879	84.44313	ng
Spiked Amount	100.0000	Recovery	=	84.44%
11) s C16(152)	20.48	2691749	86.28974	ng
Spiked Amount	100.4000	Recovery	=	85.95%
27) s C13(34) #2	16.48	12682825m	84.23711	ng
Spiked Amount	100.0000	Recovery	=	84.24%
34) s C16(152) #2	23.62	16285997m	90.07889	ng
Spiked Amount	100.4000	Recovery	=	89.72%
Target Compounds				
2) C12(8)	10.21	108053	3.56161	ng
3) C13(18)	12.12	143224m	3.25702	ng
5) C13(28)	14.21	258023	5.58557	ng
6) C14(52)	15.83	211955m	3.10786	ng
7) C14(44)	16.70	238754m	4.32123	ng
8) C14(66)	18.60	296955	5.43874	ng
9) C15(101)	19.73	283497m	6.03580	ng
12) C15(118)	22.39	357005m	6.02023	ng
13) C16(153)	23.43	241578m	5.13072	ng
14) C15(105)	23.45	373541m	5.09890	ng
15) C16(138)	24.54	396899	5.73289	ng
16) C17(187)	25.29	355405	5.92889	ng
17) C16(128)	25.63	325795m	5.96979	ng
18) C17(180)	27.16	395008m	5.88152	ng
19) C17(170)	27.96	445038m	6.07256	ng
20) C18(195)	29.04	433202m	6.46992	ng
21) C19(206)	30.31	409340m	6.49747	ng
22) C110(209)	30.90	368935m	7.11368	ng
25) C12(8) #2	13.11	727024m	4.68288	ng
26) C13(18) #2	14.99	824784m	2.21766	ng
28) C13(28) #2	17.76	1559517m	5.20790	ng
29) C14(52) #2	19.15	1211860m	6.91621	ng
30) C14(44) #2	19.96	1553517m	5.20570	ng
31) C14(66) #2	22.36	1836620m	5.51735	ng
32) C15(101) #2	23.25	1294995m	5.78809	ng
35) C15(118) #2	26.36	2192419m	6.35164	ng
36) C16(153) #2	26.93	2093670	5.13909	ng
37) C15(105) #2	27.20	2423375	5.66294	ng
38) C16(138) #2	27.78	1477669m	5.77661	ng
39) C17(187) #2	28.14	2070654	6.03619	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7587.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0424\M7587.D\ECD2B.CH
 Acq On : 11-14-2014 09:11:36 PM Operator: RR
 Sample : CD593MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:02 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:54:57 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2692107	5.95617	ng
41)	Cl7(180) #2	29.59	2433589m	6.25744	ng
42)	Cl7(170) #2	30.22	2508538m	6.13884	ng
43)	Cl8(195) #2	31.09	2399735m	6.61960	ng
44)	Cl9(206) #2	32.18	2152556m	6.73182	ng
45)	Cl10(209) #2	32.62	1866817m	7.31115	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7588.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0424\M7588.D\ECD2B.CH
 Acq On : 11-14-2014 09:56:09 PM Operator: RR
 Sample : CD594MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2425519m	100.00000	ng
10) I C16(161)	23.21	5801937m	100.00000	ng
24) I C15(96) #2	20.51	14204486m	100.00000	ng
33) I C16(161) #2	26.79	34469320m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	1991439m	89.56667	ng
Spiked Amount	100.0000	Recovery	=	89.57%
11) s C16(152)	20.48	2925820m	91.99877	ng
Spiked Amount	100.4000	Recovery	=	91.63%
27) s C13(34) #2	16.48	12648562m	91.70400	ng
Spiked Amount	100.0000	Recovery	=	91.70%
34) s C16(152) #2	23.62	15201988m	90.25789	ng
Spiked Amount	100.4000	Recovery	=	89.90%
Target Compounds				
2) C12(8)	10.21	122700	4.65253	ng
3) C13(18)	12.12	141312m	3.19271	ng
5) C13(28)	14.21	255846m	5.56277	ng
6) C14(52)	15.83	218183m	3.43970	ng
7) C14(44)	16.69	266419m	5.24367	ng
8) C14(66)	18.60	297838m	5.51000	ng
9) C15(101)	19.73	292743m	6.33672	ng
12) C15(118)	22.39	402458m	6.93437	ng
13) C16(153)	23.43 TW	288652m	6.16350	ng
14) C15(105)	23.44 TW	354829m	4.54267	ng
15) C16(138)	24.54	445500	6.51870	ng
16) C17(187)	25.29	393762	6.61449	ng
17) C16(128)	25.63	328857m	5.87147	ng
18) C17(180)	27.15	431656m	6.40767	ng
19) C17(170)	27.96	488397m	6.62879	ng
20) C18(195)	29.04	477616m	7.08648	ng
21) C19(206)	30.31	444607m	6.97232	ng
22) C110(209)	30.90	402870m	7.68912	ng
25) C12(8) #2	13.10	750966m	5.55193	ng
26) C13(18) #2	14.99	854829m	3.14394	ng
28) C13(28) #2	17.76	1401504m	5.00829	ng
29) C14(52) #2	19.15	1320358m	8.63818	ng
30) C14(44) #2	19.96	1423300m	5.14608	ng
31) C14(66) #2	22.35	1844682m	6.17931	ng
32) C15(101) #2	23.24	1295453m	6.64359	ng
35) C15(118) #2	26.35	1785836m	5.08342	ng
36) C16(153) #2	26.93	1925953m	5.02215	ng
37) C15(105) #2	27.20	2336544m	5.93199	ng
38) C16(138) #2	27.78	1503183m	6.40437	ng
39) C17(187) #2	28.14	2096354m	6.80598	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7588.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0424\M7588.D\ECD2B.CH
 Acq On : 11-14-2014 09:56:09 PM Operator: RR
 Sample : CD594MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:05 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2619878m	6.31923	ng
41)	Cl7(180) #2	29.59	2443185m	6.89374	ng
42)	Cl7(170) #2	30.21	2612459m	7.04563	ng
43)	Cl8(195) #2	31.09	2480737m	7.49737	ng
44)	Cl9(206) #2	32.18	2248605m	7.69311	ng
45)	Cl10(209) #2	32.62	1928959m	8.27763	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7589.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0424\M7589.D\ECD2B.CH
 Acq On : 14 Nov 2014 10:40 pm Operator: RR
 Sample : CD595MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:09 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2687310m	100.00000	ng
10) I C16(161)	23.21	6191104m	100.00000	ng
24) I C15(96) #2	20.51	14183601m	100.00000	ng
33) I C16(161) #2	26.79	36717472m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2179183	88.30827	ng
Spiked Amount	100.0000	Recovery	=	88.31%
11) s C16(152)	20.48	3060330	90.03038	ng
Spiked Amount	100.4000	Recovery	=	89.67%
27) s C13(34) #2	16.47	13530108m	99.02356	ng
Spiked Amount	100.0000	Recovery	=	99.02%
34) s C16(152) #2	23.62	15480911m	86.28775	ng
Spiked Amount	100.4000	Recovery	=	85.94%
Target Compounds				
2) C12(8)	10.21	137817m	4.77359	ng
3) C13(18)	12.12	152640	2.98656	ng
5) C13(28)	14.21	308377	6.27157	ng
6) C14(52)	15.83	259917m	4.17417	ng
7) C14(44)	16.70	282093	4.86810	ng
8) C14(66)	18.60	323216	5.33970	ng
9) C15(101)	19.73	337015m	6.65434	ng
12) C15(118)	22.39	446027m	7.32150	ng
13) C16(153)	23.43 TW	338221m	6.87445	ng
14) C15(105)	23.44 TW	392770m	4.80712	ng
15) C16(138)	24.54	460023	6.22770	ng
16) C17(187)	25.29	420045	6.61170	ng
17) C16(128)	25.63	363124m	6.10003	ng
18) C17(180)	27.16	470209m	6.58320	ng
19) C17(170)	27.96	532431m	6.80991	ng
20) C18(195)	29.04	511933	7.12548	ng
21) C19(206)	30.31	479200m	7.05646	ng
22) C110(209)	30.90	429264m	7.67551	ng
25) C12(8) #2	13.10	753308m	5.58983	ng
26) C13(18) #2	14.99	898646m	3.59537	ng
28) C13(28) #2	17.76	1498067m	5.50744	ng
29) C14(52) #2	19.15	1162102m	7.29390	ng
30) C14(44) #2	19.96	1509438m	5.57930	ng
31) C14(66) #2	22.36	1900851m	6.44386	ng
32) C15(101) #2	23.25	1232136m	6.11150	ng
35) C15(118) #2	26.36	2218758m	6.55179	ng
36) C16(153) #2	26.94	2158998m	5.50398	ng
37) C15(105) #2	27.20	2359603m	5.51830	ng
38) C16(138) #2	27.78	1491187m	5.89223	ng
39) C17(187) #2	28.14	2194580m	6.63976	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7589.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0424\M7589.D\ECD2B.CH
 Acq On : 14 Nov 2014 10:40 pm Operator: RR
 Sample : CD595MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:09 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:05 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2724491m	6.11752	ng
41)	Cl7(180) #2	29.58	2538798m	6.67757	ng
42)	Cl7(170) #2	30.21	2663192m	6.67603	ng
43)	Cl8(195) #2	31.08	2550716m	7.18885	ng
44)	Cl9(206) #2	32.18	2315604m	7.39774	ng
45)	Cl10(209) #2	32.62	2005759m	8.04347	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7590.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0424\M7590.D\ECD2B.CH
 Acq On : 14 Nov 2014 11:25 pm Operator: RR
 Sample : CD596MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:14 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2609586	100.00000	ng
10) I C16(161)	23.21	5835931	100.00000	ng
24) I C15(96) #2	20.51	16036666m	100.00000	ng
33) I C16(161) #2	26.79	38071256m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2158995m	90.35099	ng
Spiked Amount	100.0000	Recovery	=	90.35%
11) s C16(152)	20.48	3015385	94.45324	ng
Spiked Amount	100.4000	Recovery	=	94.08%
27) s C13(34) #2	16.47	14351404m	92.21464	ng
Spiked Amount	100.0000	Recovery	=	92.21%
34) s C16(152) #2	23.62	17456721m	93.82217	ng
Spiked Amount	100.4000	Recovery	=	93.45%
Target Compounds				
2) C12(8)	10.21	133149	4.72823	ng
3) C13(18)	12.13	160066m	3.62737	ng
5) C13(28)	14.21	284423m	5.83107	ng
6) C14(52)	15.83	248381	4.00694	ng
7) C14(44)	16.70	261200m	4.49179	ng
8) C14(66)	18.60	343829	6.11631	ng
9) C15(101)	19.73	307805m	6.15216	ng
12) C15(118)	22.38	428664m	7.52538	ng
13) C16(153)	23.44 TW	267888m	5.60314	ng
14) C15(105)	23.45 TW	440142m	6.19580	ng
15) C16(138)	24.54	422672m	6.00742	ng
16) C17(187)	25.29	376405m	6.16236	ng
17) C16(128)	25.63	333742m	5.93021	ng
18) C17(180)	27.16	417733m	6.08853	ng
19) C17(170)	27.96	466653m	6.20950	ng
20) C18(195)	29.04	461550m	6.74433	ng
21) C19(206)	30.30	427410m	6.60187	ng
22) C110(209)	30.90	385983m	7.24677	ng
25) C12(8) #2	13.10	866410m	5.73269	ng
26) C13(18) #2	14.99	1022995m	3.65689	ng
28) C13(28) #2	17.76	1447959m	4.40744	ng
29) C14(52) #2	19.15	1435757m	8.22023	ng
30) C14(44) #2	19.96	1776594m	5.88322	ng
31) C14(66) #2	22.36	2123349m	6.34115	ng
32) C15(101) #2	23.25	1372184m	5.95106	ng
35) C15(118) #2	26.36	2340002m	6.72832	ng
36) C16(153) #2	26.93	2268154m	5.63181	ng
37) C15(105) #2	27.20	2515981m	5.73234	ng
38) C16(138) #2	27.78	1601159m	6.13911	ng
39) C17(187) #2	28.14	2217252m	6.39724	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7590.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0424\M7590.D\ECD2B.CH
 Acq On : 14 Nov 2014 11:25 pm Operator: RR
 Sample : CD596MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:14 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:09 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2862466m	6.22769	ng
41)	Cl7(180) #2	29.59	2644486m	6.71710	ng
42)	Cl7(170) #2	30.21	2725835m	6.57012	ng
43)	Cl8(195) #2	31.09	2642070m	7.18013	ng
44)	Cl9(206) #2	32.18	2403408m	7.40642	ng
45)	Cl10(209) #2	32.62	2088368m	8.08336	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7591.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0424\M7591.D\ECD2B.CH
 Acq On : 15 Nov 2014 12:09 am Operator: RR
 Sample : CD597MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:13 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2502889m	100.00000	ng
10) I C16(161)	23.21	5705689m	100.00000	ng
24) I C15(96) #2	20.51	14887066m	100.00000	ng
33) I C16(161) #2	26.79	35466959m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	2098335m	91.72788	ng
Spiked Amount	100.0000	Recovery	=	91.73%
11) s C16(152)	20.48	3035935	97.50618	ng
Spiked Amount	100.4000	Recovery	=	97.12%
27) s C13(34) #2	16.47	13641356m	94.67716	ng
Spiked Amount	100.0000	Recovery	=	94.68%
34) s C16(152) #2	23.62	16365905m	94.41420	ng
Spiked Amount	100.4000	Recovery	=	94.04%
Target Compounds				
2) C12(8)	10.21	129854	4.87737	ng
3) C13(18)	12.13	157003m	3.82398	ng
5) C13(28)	14.21	285787m	6.22797	ng
6) C14(52)	15.83	230434	3.66905	ng
7) C14(44)	16.70	288520m	5.66326	ng
8) C14(66)	18.60	353866	6.76819	ng
9) C15(101)	19.73	295682m	6.16460	ng
12) C15(118)	22.38	431519m	7.84038	ng
13) C16(153)	23.43	239956m	5.04306	ng
14) C15(105)	23.45	420148m	5.98893	ng
15) C16(138)	24.54	433521m	6.42435	ng
16) C17(187)	25.29	381719m	6.48486	ng
17) C16(128)	25.63	362911m	6.67431	ng
18) C17(180)	27.16	423622m	6.39033	ng
19) C17(170)	27.96	474631m	6.53007	ng
20) C18(195)	29.04	458443m	6.87777	ng
21) C19(206)	30.31	410594m	6.46262	ng
22) C110(209)	30.90	384039m	7.40355	ng
25) C12(8) #2	13.10	807076m	5.76177	ng
26) C13(18) #2	14.99	930885m	3.47768	ng
28) C13(28) #2	17.76	1167900m	3.55886	ng
29) C14(52) #2	19.15	1418557m	8.92328	ng
30) C14(44) #2	19.96	1558062m	5.45652	ng
31) C14(66) #2	22.36	2090600m	6.85269	ng
32) C15(101) #2	23.24	1311714m	6.26397	ng
35) C15(118) #2	26.36	2138768m	6.53054	ng
36) C16(153) #2	26.93	2036842m	5.27822	ng
37) C15(105) #2	27.20	2422256m	5.99187	ng
38) C16(138) #2	27.78	1631552m	6.81308	ng
39) C17(187) #2	28.14	2265561m	7.29098	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7591.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0424\M7591.D\ECD2B.CH
 Acq On : 15 Nov 2014 12:09 am Operator: RR
 Sample : CD597MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:17 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:13 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2785144m	6.60106	ng
41)	Cl7(180) #2	29.58	2462024m	6.71161	ng
42)	Cl7(170) #2	30.21	2605103m	6.78033	ng
43)	Cl8(195) #2	31.09	2565494m	7.54243	ng
44)	Cl9(206) #2	32.18	2318505m	7.71161	ng
45)	Cl10(209) #2	32.62	2003637m	8.37085	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7593.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0424\M7593.D\ECD2B.CH
 Acq On : 11-15-2014 01:38:30 AM Operator: RR
 Sample : CD809PB-P(0) Inst : INST. M
 Misc : Procedural Blank. Sample PB. 5-128 14-04 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:22 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3101992	100.00000	ng
10) I C16(161)	23.21	6288454m	100.00000	ng
24) I C15(96) #2	20.51	15650758m	100.00000	ng
33) I C16(161) #2	26.79	35927334m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7674828m	357.23788	ng
Spiked Amount	400.0000	Recovery	=	89.31%
11) s C16(152)	20.48	11361197m	390.47764	ng
Spiked Amount	401.6000	Recovery	=	97.23%
27) s C13(34) #2	16.47	46967480m	404.89011	ng
Spiked Amount	400.0000	Recovery	=	101.22%
34) s C16(152) #2	23.62	65784872m	338.78708	ng
Spiked Amount	401.6000	Recovery	=	84.36%
Target Compounds				
2) C12(8)	0.00	0d	N.D.	ng
3) C13(18)	0.00	0d	N.D.	ng
5) C13(28)	0.00	0d	N.D.	ng
6) C14(52)	0.00	0d	N.D.	ng
7) C14(44)	0.00	0d	N.D.	ng
8) C14(66)	0.00	0d	N.D.	ng
9) C15(101)	0.00	0d	N.D.	ng
12) C15(118)	0.00	0d	N.D.	ng
13) C16(153)	0.00	0d	N.D.	ng
14) C15(105)	0.00	0d	N.D.	ng
15) C16(138)	0.00	0d	N.D.	ng
16) C17(187)	0.00	0d	N.D.	ng
17) C16(128)	0.00	0d	N.D.	ng
18) C17(180)	0.00	0d	N.D.	ng
19) C17(170)	0.00	0d	N.D.	ng
20) C18(195)	0.00	0d	N.D.	ng
21) C19(206)	0.00	0d	N.D.	ng
22) C110(209)	0.00	0d	N.D.	ng
25) C12(8) #2	0.00	0d	N.D.	ng
26) C13(18) #2	0.00	0d	N.D.	ng
28) C13(28) #2	0.00	0d	N.D.	ng
29) C14(52) #2	0.00	0d	N.D.	ng
30) C14(44) #2	0.00	0d	N.D.	ng
31) C14(66) #2	0.00	0d	N.D.	ng
32) C15(101) #2	0.00	0d	N.D.	ng
35) C15(118) #2	0.00	0d	N.D.	ng
36) C16(153) #2	0.00	0d	N.D.	ng
37) C15(105) #2	0.00	0d	N.D.	ng
38) C16(138) #2	0.00	0d	N.D.	ng
39) C17(187) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7593.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0424\M7593.D\ECD2B.CH
 Acq On : 11-15-2014 01:38:30 AM Operator: RR
 Sample : CD809PB-P(0) Inst : INST. M
 Misc : Procedural Blank. Sample PB. 5-128 14-04 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:22 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	0.00	0d	N.D.	ng
41)	Cl7(180) #2	0.00	0d	N.D.	ng
42)	Cl7(170) #2	0.00	0d	N.D.	ng
43)	Cl8(195) #2	0.00	0d	N.D.	ng
44)	Cl9(206) #2	0.00	0d	N.D.	ng
45)	Cl10(209) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7594.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0424\M7594.D\ECD2B.CH
 Acq On : 11-15-2014 02:22:58 AM Operator: RR
 Sample : CD810LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample. Sample LCS. 5 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	3035862	100.00000	ng	
10) I C16(161)	23.21	5933033m	100.00000	ng	
24) I C15(96) #2	20.51	16224367m	100.00000	ng	
33) I C16(161) #2	26.79	37774570	100.00000	ng	
System Monitoring Compounds					
4) s C13(34)	13.40	7421658	350.48100	ng	88%
Spiked Amount	400.0000	Recovery	=	87.62%	
11) s C16(152)	20.48	10985951	402.84842	ng	100%
Spiked Amount	401.6000	Recovery	=	100.31%	
27) s C13(34) #2	16.47	48475124m	402.13311	ng	101%
Spiked Amount	400.0000	Recovery	=	100.53%	
34) s C16(152) #2	23.62	70587967m	344.75380	ng	86%
Spiked Amount	401.6000	Recovery	=	85.85%	
Target Compounds					
2) C12(8)	10.21	497692	24.71016	ng	66%
3) C13(18)	12.12	637985	25.10222	ng	67%
5) C13(28)	14.21	1135215m	26.40032	ng	70%
6) C14(52)	15.83	856567m	24.64691	ng	66%
7) C14(44)	16.70	1144520m	26.19557	ng	70%
8) C14(66)	18.60	1249928m	25.33650	ng	68%
9) C15(101)	19.74	1454440m	30.81994	ng	82%
12) C15(118)	22.39	1357152m	30.27106	ng	81%
13) C16(153)	23.43	1203123m	28.67619	ng	76%
14) C15(105)	23.45	1481621m	26.75859	ng	71%
15) C16(138)	24.54	1766114m	32.68298	ng	87%
16) C17(187)	25.29	1514396m	32.00316	ng	85%
17) C16(128)	25.63	1632983m	31.52682	ng	84%
18) C17(180)	27.16	1817452m	32.82487	ng	88%
19) C17(170)	27.96	2031207	32.45710	ng	87%
20) C18(195)	29.04	1993853m	34.09214	ng	91%
21) C19(206)	30.31	1891273m	33.56670	ng	90%
22) C110(209)	30.90	1659142m	36.14174	ng	96%
25) C12(8) #2	13.10	3193790m	28.43599	ng	76%
26) C13(18) #2	14.99	3660722m	27.08923	ng	72%
28) C13(28) #2	17.76	6887337m	28.74588	ng	77%
29) C14(52) #2	19.14	4364108m	30.51569	ng	81%
30) C14(44) #2	19.96	6746369m	27.46158	ng	73%
31) C14(66) #2	22.36	8408705m	31.27162	ng	83%
32) C15(101) #2	23.24	4519803m	29.37607	ng	78%
35) C15(118) #2	26.35	8254032m	33.57993	ng	90%
36) C16(153) #2	26.93	8334202	32.08555	ng	86%
37) C15(105) #2	27.20	11025503m	32.03171	ng	85%
38) C16(138) #2	27.78	7964427m	34.55361	ng	92%
39) C17(187) #2	28.14	8885358	34.26270	ng	91%

(f)=RT Delta > 1/2 Window (m)=manual int.-----
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7594.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0424\M7594.D\ECD2B.CH
 Acq On : 11-15-2014 02:22:58 AM Operator: RR
 Sample : CD810LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample. Sample LCS. 5 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:28 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
40)	Cl6(128) #2	28.54	12197999	33.68762	ng	90%
41)	Cl7(180) #2	29.59	11228410	34.80095	ng	93%
42)	Cl7(170) #2	30.21	11900504m	33.91894	ng	90%
43)	Cl8(195) #2	31.08	11317765m	35.26922	ng	94%
44)	Cl9(206) #2	32.18	10339476m	35.78198	ng	95%
45)	Cl10(209) #2	32.62	8675559m	38.50015	ng	103%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7595.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0424\M7595.D\ECD2B.CH
 Acq On : 11-15-2014 03:07:21 AM Operator: RR
 Sample : M8168-P(2) Inst : INST. M
 Misc : NBH14-0073 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2850968	95.00000	ng
10) I C16(161)	23.21	5597103m	95.00000	ng
24) I C15(96) #2	20.51	14306291m	95.00000	ng
33) I C16(161) #2	26.79	33011727m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	6998883	335.17232	ng
Spiked Amount	379.8670	Recovery	=	88.23%
11) s C16(152)	20.48	9514966m	343.79439	ng
Spiked Amount	381.3865	Recovery	=	90.14%
27) s C13(34) #2	16.47	42943227m	384.79145	ng
Spiked Amount	379.8670	Recovery	=	101.30%
34) s C16(152) #2	23.62	56481439m	303.54197	ng
Spiked Amount	381.3865	Recovery	=	79.59%
Target Compounds				
2) C12(8)	10.20	124523m	3.28152	ng
3) C13(18)	12.13	125374m	1.12075	ng
5) C13(28)	14.20	602342m	13.01096	ng
6) C14(52)	15.83	432268m	9.65689	ng
7) C14(44)	16.70	254322m	3.47040	ng
8) C14(66)	18.60	715028m	13.51071	ng
9) C15(101)	19.71	650826m	12.93114	ng
12) C15(118)	22.39	1186194m	26.39152	ng
13) C16(153)	23.42	851290m	20.11124	ng
14) C15(105)	23.45	457064m	6.57455	ng
15) C16(138)	24.53	1195426m	21.52910	ng
16) C17(187)	25.28	181667m	1.77712	ng
17) C16(128)	25.62	347224m	6.16775	ng
18) C17(180)	27.16	219031m	2.29795	ng
19) C17(170)	27.96	186577m	1.49882	ng
20) C18(195)	29.03	43855m	BelowCal	ng
21) C19(206)	30.30	63848m	BelowCal	ng
22) C110(209)	30.90	17592m	BelowCal	ng
25) C12(8) #2	13.10	658991m	4.26671	ng
26) C13(18) #2	14.99	676780m	1.25250	ng
28) C13(28) #2	17.76	3165678m	13.16378	ng
29) C14(52) #2	19.14	2113338m	14.59374	ng
30) C14(44) #2	19.96	1247033m	4.02723	ng
31) C14(66) #2	22.35	4204755m	15.85737	ng
32) C15(101) #2	23.23	2120152m	12.93786	ng
35) C15(118) #2	26.33	6687412m	29.30550	ng
36) C16(153) #2	26.93	5521885m	22.16893	ng
37) C15(105) #2	27.20	2455699m	6.37177	ng
38) C16(138) #2	27.77	4613954m	21.55692	ng
39) C17(187) #2	28.13	1122119m	2.42181	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7595.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0424\M7595.D\ECD2B.CH
 Acq On : 11-15-2014 03:07:21 AM Operator: RR
 Sample : M8168-P(2) Inst : INST. M
 Misc : NBH14-0073 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:31 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	1951045m	4.20734	ng
41)	Cl7(180) #2	29.59	1218064m	2.52290	ng
42)	Cl7(170) #2	30.21	1121622m	2.18116	ng
43)	Cl8(195) #2	31.08	180168m	BelowCal	ng
44)	Cl9(206) #2	32.18	138385m	BelowCal	ng
45)	Cl10(209) #2	32.62	99439m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0424\M7596.D\ECD1A.CH Vial: 17
 Acq On : 11-15-2014 03:51:50 AM Operator: RR
 Sample : M8168DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0073 5-128 14-049 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0424\M7596.D\ECD2B.CH Vial: 17
 Acq On : 11-15-2014 03:51:51 AM Operator: RR
 Sample : M8168DUP-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Nov 24 14:55:36 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)

Title : NBH
 Last Update : Mon Nov 24 14:55:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3068867m	95.00000	ng
10) I C16(161)	23.21	6334278m	95.00000	ng
24) I C15(96) #2	20.51	15728055m	95.00000	ng
33) I C16(161) #2	26.79	36206660m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8058715m	374.90125	ng
Spiked Amount	379.8670	Recovery	=	98.69%
11) s C16(152)	20.48	10917043m	349.69517	ng
Spiked Amount	381.3865	Recovery	=	91.69%
27) s C13(34) #2	16.47	46893263m	380.78197	ng
Spiked Amount	379.8670	Recovery	=	100.24%
34) s C16(152) #2	23.62	63893124m	311.77014	ng
Spiked Amount	381.3865	Recovery	=	81.75%
Target Compounds				
2) C12(8)	10.21	137193m	3.45059	ng
3) C13(18)	12.13	121889m	0.55213	ng
5) C13(28)	14.20	552920m	10.72938	ng
6) C14(52)	15.83	480019m	10.15649	ng
7) C14(44)	16.70	262918	3.21202	ng
8) C14(66)	18.60	872458m	15.69383	ng
9) C15(101)	19.72	922377	17.60777	ng
12) C15(118)	22.39	1511042m	30.14013	ng
13) C16(153)	23.43	1198113m	25.31931	ng
14) C15(105)	23.45	584950m	7.75526	ng
15) C16(138)	24.53	1464203m	23.51289	ng
16) C17(187)	25.29	249465m	2.65734	ng
17) C16(128)	25.62	410748m	6.47725	ng
18) C17(180)	27.15	266877m	2.61995	ng
19) C17(170)	27.96	250089m	2.07841	ng
20) C18(195)	29.04	50140m	BelowCal	ng
21) C19(206)	30.30	58355m	BelowCal	ng
22) C110(209)	30.90	20831m	BelowCal	ng
25) C12(8) #2	13.10	707257m	4.10470	ng
26) C13(18) #2	14.99	653847m	0.48161	ng
28) C13(28) #2	17.76	3607869m	13.72325	ng
29) C14(52) #2	19.14	2281830m	14.28417	ng
30) C14(44) #2	19.95	1347721m	3.92961	ng
31) C14(66) #2	22.36	5108709m	17.75194	ng
32) C15(101) #2	23.22	2982415m	17.72220	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0424\M7596.D\ECD1A.CH Vial: 17
 Acq On : 11-15-2014 03:51:50 AM Operator: RR
 Sample : M8168DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0073 5-128 14-049 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0424\M7596.D\ECD2B.CH Vial: 17
 Acq On : 11-15-2014 03:51:51 AM Operator: RR
 Sample : M8168DUP-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Nov 24 14:55:36 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)

Title : NBH
 Last Update : Mon Nov 24 14:55:31 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
35)	C15(118) #2	26.33	8061477m	32.57638	ng
36)	C16(153) #2	26.93	6499670m	24.07775	ng
37)	C15(105) #2	27.20	2950389m	7.16309	ng
38)	C16(138) #2	27.78	5633289m	24.07731	ng
39)	C17(187) #2	28.13	1383190m	3.05717	ng
40)	C16(128) #2	28.54	2362760m	4.86159	ng
41)	C17(180) #2	29.58	1387670m	2.69239	ng
42)	C17(170) #2	30.21	1198897m	2.08777	ng
43)	C18(195) #2	31.08	249900m	BelowCal	ng
44)	C19(206) #2	32.18	155953m	BelowCal	ng
45)	C110(209) #2	32.62	178288m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7597.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0424\M7597.D\ECD2B.CH
 Acq On : 11-15-2014 04:36:11 AM Operator: RR
 Sample : M8170-P(2) Inst : INST. M
 Misc : NBH14-0081 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:35 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3230472	95.00000	ng
10) I C16(161)	23.21	6779955m	95.00000	ng
24) I C15(96) #2	20.51	16143311m	95.00000	ng
33) I C16(161) #2	26.78	39733010m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8355161	365.18272	ng
Spiked Amount	379.8670	Recovery	=	96.13%
11) s C16(152)	20.48	11842797m	355.57679	ng
Spiked Amount	381.3865	Recovery	=	93.23%
27) s C13(34) #2	16.47	48953194m	390.97536	ng
Spiked Amount	379.8670	Recovery	=	102.92%
34) s C16(152) #2	23.62	68285249m	304.71772	ng
Spiked Amount	381.3865	Recovery	=	79.90%
Target Compounds				
2) C12(8)	10.21	54482m	BelowCal	ng
3) C13(18)	12.18	113157m	BelowCal	ng
5) C13(28)	14.20	187184m	1.84354	ng
6) C14(52)	15.83	133931m	BelowCal	ng
7) C14(44)	16.70	61985m	BelowCal	ng
8) C14(66)	18.60	207420m	1.48185	ng
9) C15(101)	19.71	142748m	1.14122	ng
12) C15(118)	22.39	403802m	5.24160	ng
13) C16(153)	23.43 TW	209447m	3.24866	ng
14) C15(105)	23.44 TW	188975m	0.66628	ng
15) C16(138)	24.53	385746m	3.97794	ng
16) C17(187)	25.29	82416m	BelowCal	ng
17) C16(128)	25.62	101532m	0.99704	ng
18) C17(180)	27.15	51791m	BelowCal	ng
19) C17(170)	27.96	92458m	BelowCal	ng
20) C18(195)	29.08	47857m	BelowCal	ng
21) C19(206)	30.31	35374m	BelowCal	ng
22) C110(209)	30.90	19394m	BelowCal	ng
25) C12(8) #2	13.10	216867m	BelowCal	ng
26) C13(18) #2	14.97	535242m	BelowCal	ng
28) C13(28) #2	17.76	887618m	1.78564	ng
29) C14(52) #2	19.15	951566m	4.27421	ng
30) C14(44) #2	19.95	233196m	BelowCal	ng
31) C14(66) #2	22.35	925733m	1.49163	ng
32) C15(101) #2	23.22	832272m	1.67173	ng
35) C15(118) #2	26.33	2220646m	5.48952	ng
36) C16(153) #2	26.93	1798166m	3.10953	ng
37) C15(105) #2	27.20	924806m	0.66170	ng
38) C16(138) #2	27.78	1428076m	4.83881	ng
39) C17(187) #2	28.13	580505m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7597.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0424\M7597.D\ECD2B.CH
 Acq On : 11-15-2014 04:36:11 AM Operator: RR
 Sample : M8170-P(2) Inst : INST. M
 Misc : NBH14-0081 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:55:41 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:35 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	739007m	BelowCal	ng
41)	Cl7(180) #2	29.58	502756m	BelowCal	ng
42)	Cl7(170) #2	30.21	367039m	BelowCal	ng
43)	Cl8(195) #2	31.09	107914m	BelowCal	ng
44)	Cl9(206) #2	32.17	67306m	BelowCal	ng
45)	Cl10(209) #2	32.64	81590m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7598.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0424\M7598.D\ECD2B.CH
 Acq On : 11-15-2014 05:20:43 AM Operator: RR
 Sample : M8170MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0081 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:58:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:58:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	2970125	100.00000	ng
10) I C16(161)	23.21	5741188	100.00000	ng
24) I C15(96) #2	20.51	15108158m	100.00000	ng
33) I C16(161) #2	26.79	34521468m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	7194364	345.44000	ng
Spiked Amount	400.0000	Recovery	=	86.36%
11) s C16(152)	20.48	10185071m	381.62227	ng
Spiked Amount	401.6000	Recovery	=	95.03%
27) s C13(34) #2	16.47	44456324m	392.81027	ng
Spiked Amount	400.0000	Recovery	=	98.20%
34) s C16(152) #2	23.62	71647425m	377.01301	ng
Spiked Amount	401.6000	Recovery	=	93.88%
Target Compounds				
2) C12(8)	10.21	795765	43.82703	ng
3) C13(18)	12.12	1003214m	44.28924	ng
5) C13(28)	14.20	1881370m	47.20436	ng
6) C14(52)	15.83	1394986	46.08118	ng
7) C14(44)	16.70	1857600m	46.31467	ng
8) C14(66)	18.60	2099366	46.22158	ng
9) C15(101)	19.74	2408475m	54.15442	ng
12) C15(118)	22.39	2231316m	54.30792	ng
13) C16(153)	23.43	2043868m	51.67662	ng
14) C15(105)	23.45	2604154m	51.71902	ng
15) C16(138)	24.54	2854521	56.76339	ng
16) C17(187)	25.29	2425545	55.08421	ng
17) C16(128)	25.63	2530776m	51.41714	ng
18) C17(180)	27.16	2856817	54.85821	ng
19) C17(170)	27.96	3110113m	52.61184	ng
20) C18(195)	29.04	3074674m	55.53231	ng
21) C19(206)	30.30	2854556m	53.36854	ng
22) C110(209)	30.90	2467728m	56.79143	ng
25) C12(8) #2	13.10	4875798m	49.18819	ng
26) C13(18) #2	14.99	5807011m	50.97708	ng
28) C13(28) #2	17.76	9140331m	42.21423	ng
29) C14(52) #2	19.14	6963654m	55.31182	ng
30) C14(44) #2	19.95	13945991m	64.88459	ng
31) C14(66) #2	22.35	12502948m	51.77046	ng
32) C15(101) #2	23.23	8619160m	63.71158	ng
35) C15(118) #2	26.34	10655429m	49.07579	ng
36) C16(153) #2	26.93	12254170m	54.05095	ng
37) C15(105) #2	27.20	16790014m	54.34575	ng
38) C16(138) #2	27.78	12068823m	57.30314	ng
39) C17(187) #2	28.14	13819646	59.91818	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7598.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0424\M7598.D\ECD2B.CH
 Acq On : 11-15-2014 05:20:43 AM Operator: RR
 Sample : M8170MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0081 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:58:23 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:58:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	18203026m	56.00723	ng
41)	Cl7(180) #2	29.58	16813087m	57.78047	ng
42)	Cl7(170) #2	30.21	18120590m	57.08350	ng
43)	Cl8(195) #2	31.08	17078878m	58.59963	ng
44)	Cl9(206) #2	32.18	15185002m	57.76551	ng
45)	Cl10(209) #2	32.62	12583596m	61.62972	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7599.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0424\M7599.D\ECD2B.CH
 Acq On : 11-15-2014 06:05:17 AM Operator: RR
 Sample : M8170MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0081 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:58:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:58:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3392393	100.00000	ng
10) I C16(161)	23.21	6732509m	100.00000	ng
24) I C15(96) #2	20.51	15484225m	100.00000	ng
33) I C16(161) #2	26.79	37347352m	100.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8894544m	393.56935	ng
Spiked Amount	400.0000	Recovery	=	98.39%
11) s C16(152)	20.48	12823270	417.68939	ng
Spiked Amount	401.6000	Recovery	=	104.01%
27) s C13(34) #2	16.47	48285821m	430.41640	ng
Spiked Amount	400.0000	Recovery	=	107.60%
34) s C16(152) #2	23.62	83479539m	401.33939	ng
Spiked Amount	401.6000	Recovery	=	99.94%
Target Compounds				
2) C12(8)	10.21	990212	48.33950	ng
3) C13(18)	12.12	1213253	47.34677	ng
5) C13(28)	14.21	2380027m	52.78389	ng
6) C14(52)	15.83	1746134	51.34862	ng
7) C14(44)	16.70	2279412m	50.15286	ng
8) C14(66)	18.60	2623138	51.01654	ng
9) C15(101)	19.74	2876634m	56.80340	ng
12) C15(118)	22.39	2753695m	57.41643	ng
13) C16(153)	23.43	2530735m	54.69879	ng
14) C15(105)	23.45	3277217m	55.88263	ng
15) C16(138)	24.53	3650574	62.25918	ng
16) C17(187)	25.29	2994206m	58.18733	ng
17) C16(128)	25.63	3694492m	64.60814	ng
18) C17(180)	27.16	3554165m	58.37076	ng
19) C17(170)	27.96	3928000m	56.85307	ng
20) C18(195)	29.04	3875157m	59.85853	ng
21) C19(206)	30.31	3660590m	58.55928	ng
22) C110(209)	30.90	3147197m	62.00941	ng
25) C12(8) #2	13.10	5396962m	53.53826	ng
26) C13(18) #2	14.99	6148442m	52.93270	ng
28) C13(28) #2	17.76	11667667m	53.47972	ng
29) C14(52) #2	19.14	7439396m	57.89472	ng
30) C14(44) #2	19.96	11996617m	53.72982	ng
31) C14(66) #2	22.35	14361290m	58.49684	ng
32) C15(101) #2	23.24	7840881m	56.27666	ng
35) C15(118) #2	26.34	13234534m	56.95422	ng
36) C16(153) #2	26.93	13925064m	56.96758	ng
37) C15(105) #2	27.20	19509701m	58.44513	ng
38) C16(138) #2	27.78	15240662m	66.73482	ng
39) C17(187) #2	28.14	15066657m	60.39675	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7599.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0424\M7599.D\ECD2B.CH
 Acq On : 11-15-2014 06:05:17 AM Operator: RR
 Sample : M8170MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0081 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:58:52 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:58:47 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	20996154m	59.78811	ng
41)	Cl7(180) #2	29.58	19352614m	61.51669	ng
42)	Cl7(170) #2	30.21	21138744m	61.57651	ng
43)	Cl8(195) #2	31.08	20025768m	63.50444	ng
44)	Cl9(206) #2	32.18	18451520m	64.85977	ng
45)	Cl10(209) #2	32.62	15199263m	68.85353	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7600.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0424\M7600.D\ECD2B.CH
 Acq On : 11-15-2014 06:49:47 AM Operator: RR
 Sample : M8171-P1(2) Inst : INST. M
 Misc : NBH14-0085 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 15:03:08 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 15:03:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3402257m	95.00000	ng
10) I C16(161)	23.21	6882455m	95.00000	ng
24) I C15(96) #2	20.51	16555565m	95.00000	ng
33) I C16(161) #2	26.79	38457295m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8188977	324.93850	ng
Spiked Amount	379.8670	Recovery	=	85.54%
11) s C16(152)	20.48	11543119m	338.11375	ng
Spiked Amount	381.3865	Recovery	=	88.65%
27) s C13(34) #2	16.47	45006703m	332.13658	ng
Spiked Amount	379.8670	Recovery	=	87.43%
34) s C16(152) #2	23.62	60978505m	284.09264	ng
Spiked Amount	381.3865	Recovery	=	74.49%
Target Compounds				
2) C12(8)	10.21	159683m	3.81779	ng
3) C13(18)	12.13	129114m	0.31617	ng
5) C13(28)	14.20	1047276	20.14591	ng
6) C14(52)	15.83	421783m	6.78364	ng
7) C14(44)	16.70	270801m	2.76779	ng
8) C14(66)	18.60	821792m	12.90849	ng
9) C15(101)	19.72	599213m	9.57308	ng
12) C15(118)	22.39	1478635m	26.80068	ng
13) C16(153)	23.42	947504m	18.09047	ng
14) C15(105)	23.45	559320m	6.53115	ng
15) C16(138)	24.53	1344026m	19.46725	ng
16) C17(187)	25.28	214286m	1.60915	ng
17) C16(128)	25.62	376506m	5.36042	ng
18) C17(180)	27.16	215241m	1.45442	ng
19) C17(170)	27.96	209691m	1.22857	ng
20) C18(195)	29.03	32365m	BelowCal	ng
21) C19(206)	30.29	48934m	BelowCal	ng
22) C110(209)	30.90	19879m	BelowCal	ng
25) C12(8) #2	13.10	853024m	5.07529	ng
26) C13(18) #2	14.99	673162m	0.35920	ng
28) C13(28) #2	17.76	3935112m	14.29615	ng
29) C14(52) #2	19.15	2026991m	11.63615	ng
30) C14(44) #2	19.95	1361871m	3.70321	ng
31) C14(66) #2	22.35	4200709m	13.40076	ng
32) C15(101) #2	23.23	1772278m	8.15929	ng
35) C15(118) #2	26.33	7690203m	28.88052	ng
36) C16(153) #2	26.93	5373162m	17.87135	ng
37) C15(105) #2	27.20	3004375m	6.78802	ng
38) C16(138) #2	27.78	5097057m	20.40288	ng
39) C17(187) #2	28.13	1526550m	3.28223	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7600.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0424\M7600.D\ECD2B.CH
 Acq On : 11-15-2014 06:49:47 AM Operator: RR
 Sample : M8171-P1(2) Inst : INST. M
 Misc : NBH14-0085 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 15:03:08 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 15:03:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2258423m	4.16736	ng
41)	Cl7(180) #2	29.58	1241544m	1.97526	ng
42)	Cl7(170) #2	30.21	1017569m	1.36840	ng
43)	Cl8(195) #2	31.08	149137m	BelowCal	ng
44)	Cl9(206) #2	32.18	152950m	BelowCal	ng
45)	Cl10(209) #2	32.62	135176m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7601.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0424\M7601.D\ECD2B.CH
 Acq On : 11-15-2014 07:34:10 AM Operator: RR
 Sample : M8388-P(2) Inst : INST. M
 Misc : NBH14-0105 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:56:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3424533m	95.00000	ng
10) I C16(161)	23.21	6773303m	95.00000	ng
24) I C15(96) #2	20.51	16614511m	95.00000	ng
33) I C16(161) #2	26.78	38220879m	95.00000	ng
System Monitoring Compounds				
4) s C13(34)	13.40	8576659	346.12127	ng
Spiked Amount	379.8670	Recovery	=	91.12%
11) s C16(152)	20.48	11098324m	328.57993	ng
Spiked Amount	381.3865	Recovery	=	86.15%
27) s C13(34) #2	16.47	47927865m	362.15142	ng
Spiked Amount	379.8670	Recovery	=	95.34%
34) s C16(152) #2	23.62	60308036m	282.88045	ng
Spiked Amount	381.3865	Recovery	=	74.17%
Target Compounds				
2) C12(8)	10.20	170787m	4.30189	ng
3) C13(18)	12.13	135021m	0.51338	ng
5) C13(28)	14.20	774477m	14.10528	ng
6) C14(52)	15.83	423231m	6.74390	ng
7) C14(44)	16.70	247357m	2.23002	ng
8) C14(66)	18.60	717407m	10.82807	ng
9) C15(101)	19.72	520861m	8.03104	ng
12) C15(118)	22.39	1480207m	27.32017	ng
13) C16(153)	23.42	1176922m	23.15326	ng
14) C15(105)	23.45	486330m	5.48719	ng
15) C16(138)	24.53	1387093m	20.53800	ng
16) C17(187)	25.28	267912m	2.67906	ng
17) C16(128)	25.62	411799m	6.03127	ng
18) C17(180)	27.16	248060m	2.02853	ng
19) C17(170)	27.96	219536m	1.41186	ng
20) C18(195)	29.04	41959m	BelowCal	ng
21) C19(206)	30.30	70898m	BelowCal	ng
22) C110(209)	30.90	29821m	BelowCal	ng
25) C12(8) #2	13.10	733537m	3.98382	ng
26) C13(18) #2	14.99	686108m	0.44449	ng
28) C13(28) #2	17.76	3999852m	14.50700	ng
29) C14(52) #2	19.14	1719203m	9.42815	ng
30) C14(44) #2	19.95	1241151m	3.20436	ng
31) C14(66) #2	22.35	3465107m	10.64680	ng
32) C15(101) #2	23.22	2081572m	10.28042	ng
35) C15(118) #2	26.33	7527827m	28.39015	ng
36) C16(153) #2	26.93	6039704m	20.72666	ng
37) C15(105) #2	27.20	2933918m	6.63639	ng
38) C16(138) #2	27.77	5435839m	21.94844	ng
39) C17(187) #2	28.13	1951617m	4.99597	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7601.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0424\M7601.D\ECD2B.CH
 Acq On : 11-15-2014 07:34:10 AM Operator: RR
 Sample : M8388-P(2) Inst : INST. M
 Misc : NBH14-0105 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Nov 24 14:56:46 2014 Quant Results File: MM0417C.RES

Quant Method : I:\M\DATA\MM0417C.M (Chemstation Integrator)
 Title : NBH
 Last Update : Mon Nov 24 14:55:40 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
40)	Cl6(128) #2	28.54	2395171m	4.58625	ng
41)	Cl7(180) #2	29.58	1338494m	2.30005	ng
42)	Cl7(170) #2	30.21	994949m	1.32209	ng
43)	Cl8(195) #2	31.08	192332m	BelowCal	ng
44)	Cl9(206) #2	32.18	179587m	BelowCal	ng
45)	Cl10(209) #2	32.64	297871m	BelowCal	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7582.D\ECD1A.CH Vial: 3
 Signal #2 : I:\M\DATA\SM0424\M7582.D\ECD2B.CH
 Acq On : 11-14-2014 05:28:55 PM Operator: RR
 Sample : CD588PB-P(0) Inst : INST. M
 Misc : Procedural Blank. Sodium Sulfate lot # 1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:41:57 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 09:54:19 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2164245	100.00000	ng
4) I C15(96) #2	20.52	14712577m	100.00000	ng
Target Compounds				
2) C15(101)	0.00	0d	N.D.	ng
5) C15(101) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7583.D\ECD1A.CH Vial: 4
 Signal #2 : I:\M\DATA\SM0424\M7583.D\ECD2B.CH
 Acq On : 11-14-2014 06:13:22 PM Operator: RR
 Sample : CD589LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample. Sodium Sulfa Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:03 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:41:56 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	2270924	100.00000	ng	
4) I C15(96) #2	20.52	15266855m	100.00000	ng	
Target Compounds					
2) C15(101)	19.74	1328263m	37.25666	ng	99%
5) C15(101) #2	23.21	11889354m	36.88300	ng	98%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7584.D\ECD1A.CH Vial: 5
 Signal #2 : I:\M\DATA\SM0424\M7584.D\ECD2B.CH
 Acq On : 11-14-2014 06:57:58 PM Operator: RR
 Sample : CD590MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:08 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:01 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2530448	100.00000	ng
4) I C15(96) #2	20.51	15423635m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	348837m	7.32694	ng
5) C15(101) #2	23.23	3040622m	9.81468	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7585.D\ECD1A.CH Vial: 6
 Signal #2 : I:\M\DATA\SM0424\M7585.D\ECD2B.CH
 Acq On : 11-14-2014 07:42:36 PM Operator: RR
 Sample : CD591MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:13 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:06 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2263263	100.00000	ng
4) I C15(96) #2	20.51	15016002m	100.00000	ng
Target Compounds				
2) C15(101)	19.73	314298m	7.39408	ng
5) C15(101) #2	23.22	2793562m	9.31525	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7586.D\ECD1A.CH Vial: 7
 Signal #2 : I:\M\DATA\SM0424\M7586.D\ECD2B.CH
 Acq On : 11-14-2014 08:27:09 PM Operator: RR
 Sample : CD592MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:19 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:11 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2631530	100.00000	ng
4) I C15(96) #2	20.51	15278184m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	361693m	7.29977	ng
5) C15(101) #2	23.22	2893628m	9.46621	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7587.D\ECD1A.CH Vial: 8
 Signal #2 : I:\M\DATA\SM0424\M7587.D\ECD2B.CH
 Acq On : 11-14-2014 09:11:36 PM Operator: RR
 Sample : CD593MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:24 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:17 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2439258	100.00000	ng
4) I C15(96) #2	20.51	15384670m	100.00000	ng
Target Compounds				
2) C15(101)	19.73	334503m	7.27906	ng
5) C15(101) #2	23.23	3039167m	9.83290	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7588.D\ECD1A.CH Vial: 9
 Signal #2 : I:\M\DATA\SM0424\M7588.D\ECD2B.CH
 Acq On : 11-14-2014 09:56:09 PM Operator: RR
 Sample : CD594MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:29 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:22 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2654343	100.00000	ng
4) I C15(96) #2	20.51	14296280m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	359054m	7.15566	ng
5) C15(101) #2	23.22	2799665m	9.75577	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7589.D\ECD1A.CH Vial: 10
 Signal #2 : I:\M\DATA\SM0424\M7589.D\ECD2B.CH
 Acq On : 14 Nov 2014 10:40 pm Operator: RR
 Sample : CD595MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:34 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:27 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2634253	100.00000	ng
4) I C15(96) #2	20.51	14387298m	100.00000	ng
Target Compounds				
2) C15(101)	19.73	361717m	7.29096	ng
5) C15(101) #2	23.23	2891333m	9.98685	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7590.D\ECD1A.CH Vial: 11
 Signal #2 : I:\M\DATA\SM0424\M7590.D\ECD2B.CH
 Acq On : 14 Nov 2014 11:25 pm Operator: RR
 Sample : CD596MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:38 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:32 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2609586	100.00000	ng
4) I C15(96) #2	20.51	15921435m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	356789m	7.25186	ng
5) C15(101) #2	23.22	3055287m	9.57875	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7591.D\ECD1A.CH Vial: 12
 Signal #2 : I:\M\DATA\SM0424\M7591.D\ECD2B.CH
 Acq On : 15 Nov 2014 12:09 am Operator: RR
 Sample : CD597MDL-P(0) Inst : INST. M
 Misc : Method Detection Limits. Method Detectio Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:42 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:36 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2507219	100.00000	ng
4) I C15(96) #2	20.51	14980909m	100.00000	ng
Target Compounds				
2) C15(101)	19.73	343735m	7.27673	ng
5) C15(101) #2	23.22	2929887m	9.74421	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7593.D\ECD1A.CH Vial: 14
 Signal #2 : I:\M\DATA\SM0424\M7593.D\ECD2B.CH
 Acq On : 11-15-2014 01:38:30 AM Operator: RR
 Sample : CD809PB-P(0) Inst : INST. M
 Misc : Procedural Blank. Sample PB. 5-128 14-04 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:52 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:45 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3101992	100.00000	ng
4) I C15(96) #2	20.51	15628154m	100.00000	ng
Target Compounds				
2) C15(101)	0.00	0d	N.D.	ng
5) C15(101) #2	0.00	0d	N.D.	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7594.D\ECD1A.CH Vial: 15
 Signal #2 : I:\M\DATA\SM0424\M7594.D\ECD2B.CH
 Acq On : 11-15-2014 02:22:58 AM Operator: RR
 Sample : CD810LCS-P(0) Inst : INST. M
 Misc : Laboratory Control Sample. Sample LCS. 5 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:42:56 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:50 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
Internal Standards					
1) I C15(96)	17.39	3035862	100.00000	ng	
4) I C15(96) #2	20.51	16237338m	100.00000	ng	
Target Compounds					
2) C15(101)	19.74	1518277m	31.53109	ng	84%
5) C15(101) #2	23.20	12523203m	36.52145	ng	97%

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7595.D\ECD1A.CH Vial: 16
 Signal #2 : I:\M\DATA\SM0424\M7595.D\ECD2B.CH
 Acq On : 11-15-2014 03:07:21 AM Operator: RR
 Sample : M8168-P(2) Inst : INST. M
 Misc : NBH14-0073 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:43:02 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:42:55 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2850968	95.00000	ng
4) I C15(96) #2	20.51	14541305m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	841989	16.90803	ng
5) C15(101) #2	23.23	4932249m	15.44631	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Data File : I:\M\DATA\SM0424\M7596.D\ECD1A.CH Vial: 17
 Acq On : 11-15-2014 03:51:50 AM Operator: RR
 Sample : M8168DUP-P(2) Inst : INST. M
 Misc : Lab Duplicate of NBH14-0073 5-128 14-049 Multiplr: 1.00
 IntFile : events.e

Data File : I:\M\DATA\SM0424\M7596.D\ECD2B.CH Vial: 17
 Acq On : 11-15-2014 03:51:51 AM Operator: RR
 Sample : M8168DUP-P(2) Inst : INST. M
 Misc : Multiplr: 1.00
 IntFile : events2.e

Quant Time: Dec 08 11:43:06 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)

Title : NBH 101 only to compliment B method

Last Update : Mon Dec 08 11:43:00 2014

Response via : Initial Calibration

DataAcq Meth : 5-128S.M

RIS/SIS Mult : NA

Volume Inj. :

Signal #1 Phase : Signal #2 Phase:

Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I C15(96)	17.39	3155710	95.00000	ng
4) I C15(96) #2	20.51	15605301m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	922377	16.71492	ng
5) C15(101) #2	23.22	5749292m	16.71821	ng

(f)=RT Delta > 1/2 Window

(m)=manual int.

(E) = > 2 * high standard response

(e) = > 1 * high standard response

(T) = Match R.T.

(TW) = Near Match R.T.

(*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7597.D\ECD1A.CH Vial: 18
 Signal #2 : I:\M\DATA\SM0424\M7597.D\ECD2B.CH
 Acq On : 11-15-2014 04:36:11 AM Operator: RR
 Sample : M8170-P(2) Inst : INST. M
 Misc : NBH14-0081 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:43:09 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:43:04 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3230472	95.00000	ng
4) I C15(96) #2	20.51	16224014m	95.00000	ng
Target Compounds				
2) C15(101)	19.71	314364	4.41138	ng
5) C15(101) #2	23.22	1359725m	4.50693	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7598.D\ECD1A.CH Vial: 19
 Signal #2 : I:\M\DATA\SM0424\M7598.D\ECD2B.CH
 Acq On : 11-15-2014 05:20:43 AM Operator: RR
 Sample : M8170MS-P(0) Inst : INST. M
 Misc : Matrix Spike of NBH14-0081 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:43:13 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:43:08 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	2970125	100.00000	ng
4) I C15(96) #2	20.51	15250466m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	2205001m	47.95501	ng
5) C15(101) #2	23.22	15546289m	48.65313	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7599.D\ECD1A.CH Vial: 20
 Signal #2 : I:\M\DATA\SM0424\M7599.D\ECD2B.CH
 Acq On : 11-15-2014 06:05:17 AM Operator: RR
 Sample : M8170MSD-P(0) Inst : INST. M
 Misc : Matrix Spike Duplicate of NBH14-0081 5-1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:43:16 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:43:12 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3392393	100.00000	ng
4) I C15(96) #2	20.51	15643142m	100.00000	ng
Target Compounds				
2) C15(101)	19.74	2787996m	53.38305	ng
5) C15(101) #2	23.21	17463621m	53.50263	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7600.D\ECD1A.CH Vial: 21
 Signal #2 : I:\M\DATA\SM0424\M7600.D\ECD2B.CH
 Acq On : 11-15-2014 06:49:47 AM Operator: RR
 Sample : M8171-P1(2) Inst : INST. M
 Misc : NBH14-0085 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:43:18 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:43:15 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3568658	95.00000	ng
4) I C15(96) #2	20.51	16482538m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	807618	12.53885	ng
5) C15(101) #2	23.22	5119060m	14.20525	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Signal #1 : I:\M\DATA\SM0424\M7601.D\ECD1A.CH Vial: 22
 Signal #2 : I:\M\DATA\SM0424\M7601.D\ECD2B.CH
 Acq On : 11-15-2014 07:34:10 AM Operator: RR
 Sample : M8388-P(2) Inst : INST. M
 Misc : NBH14-0105 5-128 14-0497 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e
 Quant Time: Dec 08 11:43:22 2014 Quant Results File: MM0417F.RES

Quant Method : I:\M\DATA\MM0417F.M (Chemstation Integrator)
 Title : NBH 101 only to compliment B method
 Last Update : Mon Dec 08 11:43:18 2014
 Response via : Initial Calibration
 DataAcq Meth : 5-128S.M
 RIS/SIS Mult : NA
 Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I C15(96)	17.39	3645171	95.00000	ng
4) I C15(96) #2	20.51	16286767m	95.00000	ng
Target Compounds				
2) C15(101)	19.72	735771m	10.99395	ng
5) C15(101) #2	23.22	4829931m	13.59866	ng

(f)=RT Delta > 1/2 Window (m)=manual int.
 (E) = > 2 * high standard response (e) = > 1 * high standard response
 (T) = Match R.T. (TW) = Near Match R.T.
 (*) = Not Verified to LIMS

Appendix F
Benthic Infauna Laboratory Data Report

QUALITY ASSURANCE STATEMENT

Client/Project: Battelle

Work Assignment Title: New Bedford Harbor

Description of Data Set or Deliverable: 158 Benthic macroinvertebrate samples collected in September 2014; Modified Van Veen grabs.

Description of audit and review activities: Judged accuracy rates were well above standard levels for taxonomy. Laboratory QC reports were completed.

Copies of QC results follow (see attachment.) All taxonomic data were entered into the computer and printed. This list was checked for accuracy against original taxonomic data sheets.

Description of outstanding issues or deficiencies, which may affect data quality: None



27 May 2015

Signature of QA Officer or Reviewer

Date



27 May 2015

Signature of Project Manager

Date

QUALITY CONTROL REWORKS

Client/Project: Battelle

Work Assignment Title: New Bedford Harbor

Description of Data Set : 158 Benthic macroinvertebrate samples

Sorting Results:	Sample #	Orig. Tech.	Verif. Tech.	# in sample	# in resort	% Accuracy
	NBH14-0023-253-14LTM-REP 2	DC	SMC	29	0	100%
	NBH14-0034-235-14LTM-REP1	DC	SMC	22	0	100%
	NBH14-0039-240-14LTM-REP2	DC	SMC	6	0	100%
	NBH14-0082-346-14LTM-REP1	DC	SMC	310	0	100%
	NBH14-0087-340-14LTM-REP2	DC	SMC	501	0	100%
	NBH14-0098-335-14LTM-REP1	DC	SMC	616	0	100%
	NBH14-0139-309-14LTM-REP2	DC	SMC	131	0	100%
	NBH14-0143-310-14LTM-REP2	DC	SMC	29	0	100%
	NBH14-0038-240-14LTM-REP1	SMC	DC	0	0	100%
	NBH14-0051-140-14LTM-REP2	SMC	DC	736	0	100%
	NBH14-0138-309-14LTM-REP1	SMC	DC	120	0	100%
	NBH14-0142-310-14LTM-REP1	SMC	DC	44	0	100%
	NBH14-0179-247-14LTM-REP2	SMC	DC	393	0	100%
	NBH14-0270-332-14LTM-REP1	MF	DC	213	0	100%
	NBH14-0316-217-14LTM-REP2	HRC	DC	237	0	100%
	NBH14-0290-325-14LTM-REP1	LS	DC	658	0	100%
	NBH14-0274-338-14LTM-REP1	BG	DC	306	0	100%

Taxonomy Result	Sample #	Orig. Taxon.	Verif. Taxon.	Taxa	# Errors	% Accuracy
	NBH14-0022-253-14LTM-REP1	TH	LS	CRUST/MOLL	1	96%
	NBH14-0035-235-14LTM-REP2	TH	LS	CRUST/MOLL	0	100%
	NBH14-0046-146-14LTM-REP1	TH	LS	CRUST/MOLL	1	96%
	NBH14-0062-147-14LTM-REP1	TH	LS	CRUST/MOLL	1	97%
	NBH14-0074-333-14LTM-REP1	TH	LS	CRUST/MOLL	5	98%
	NBH14-0138-309-14LTM-REP1	TH	LS	CRUST/MOLL	2	98%
	NBH14-0159-109-14LTM-REP1	TH	BG	CRUST/MOLL	0	100%
	NBH14-0170-139-14LTM-REP1	TH	BG	CRUST/MOLL	1	95%
	NBH14-0328-204-14LTM-REP2	TH	BG	CRUST/MOLL	4	98%
	NBH14-0226-126-14LTM-REP2	BG	TH	CRUST/MOLL	7	99%
	NBH14-0070-155-14LTM-REP2	BG	TH	CRUST/MOLL	6	99%
	NBH14-0171-139-14LTM-REP2	BG	TH	CRUST/MOLL	0	100%
	NBH14-0110-345-14LTM-REP1	BG	TH	CRUST/MOLL	8	98%
	NBH14-0102-349-14LTM-REP1	BG	TH	CRUST/MOLL	2	98%
	NBH14-0200-230-14LTM-REP1	BG	TH	CRUST/MOLL	2	97%
	NBH14-0238-222-14LTM-REP1	BG	TH	CRUST/MOLL	0	100%
	NBH14-0212-111-14LTM-REP1	JO	PG	ANNELIDA	3	99%
	NBH14-0278-324-14LTM-REP2	HS	PG	ANNELIDA	0	100%
	NBH14-0212-111-14LTM-REP1	JO	PG	ANNELIDA	3	99%
	NBH14-0287-324-14LTM-REP2	HS	PG	ANNELIDA	0	100%
	NBH14-0262-208-14LTM-REP1	HS	PG	ANNELIDA	3	99%
	NBH14-0122-306-14LTM-REP1	HS	PG	ANNELIDA	0	100%
	NBH14-0099-335-14LTM-REP2	HS	PG	ANNELIDA	1	99%
	NBH14-0078-339-14LTM-REP1	HS	PG	ANNELIDA	0	100%
	NBH14-0070-155-14LTM-REP1	HS	PG	ANNELIDA	3	99%
	NBH14-0050-140-14LTM-REP1	BG	PG	ANNELIDA	0	100%
	NBH14-0022-253-14LTM-REP1	BG	PG	ANNELIDA	0	100%
	NBH14-0010-130-14LTM-REP1	BG	PG	ANNELIDA	2	99%
	NBH14-0230-108-14LTM-REP2	JO	PG	ANNELIDA	3	99%
	NBH14-0312-227-14LTM-REP2	PG	HS	ANNELIDA	0	100%
	NBH14-0226-126-14LTM-REP2	PG	HS	ANNELIDA	0	100%
	NBH14-0171-139-14LTM-REP2	PG	HS	ANNELIDA	0	100%
	NBH14-0171-139-14LTM-REP2	PG	HS	ANNELIDA	0	100%
	NBH14-0102-349-14LTM-REP1	PG	HS	ANNELIDA	0	100%
	NBH14-0131-249-14LTM-REP2	PG	HS	ANNELIDA	1	99%

James Stiller

27-May-15

Signature of QA Officer or Reviewer

Date

Station Name	Rep	No. of Indvs	No. of Taxa	Density	Mean No. of Taxa	Total No. Taxa	Mean Density	Total No. Indv	Density (SD)	Taxa SD	Diversity H'	Evenness J'																																																																																																																																																																																																																				
NBH14-0002-120	1	807	23	20175.0	25.0	31	26900.0	2152	9510.6	2.8	2.08	0.61																																																																																																																																																																																																																				
	2	1345	27	33625.0									NBH14-0006-125	1	1237	23	30925.0	22.5	31	34387.5	2751	4896.7	0.7	1.62	0.47	2	1514	22	37850.0	NBH14-0010-130	1	850	14	21250.0	14.5	17	22750.0	1820	2121.3	0.7	0.60	0.21	2	970	15	24250.0	NBH14-0014-134	1	979	17	24475.0	19.5	24	33425.0	2674	?	3.5	1.53	0.48	2	1695	22	42375.0	NBH14-0018-150	1	847	26	21175.0	24.0	32	23325.0	1866	3040.6	2.8	1.79	0.52	2	1019	22	25475.0	NBH14-0022-253	1	42	15	1050.0	13.0	19	887.5	71	229.8	2.8	2.46	0.84	2	29	11	725.0	NBH14-0026-216	1	605	46	15125.0	47.5	58	16325.0	1306	1697.1	2.1	2.84	0.70	2	701	49	17525.0	NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58	2	272	17	6800.0	NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0
NBH14-0006-125	1	1237	23	30925.0	22.5	31	34387.5	2751	4896.7	0.7	1.62	0.47																																																																																																																																																																																																																				
	2	1514	22	37850.0									NBH14-0010-130	1	850	14	21250.0	14.5	17	22750.0	1820	2121.3	0.7	0.60	0.21	2	970	15	24250.0	NBH14-0014-134	1	979	17	24475.0	19.5	24	33425.0	2674	?	3.5	1.53	0.48	2	1695	22	42375.0	NBH14-0018-150	1	847	26	21175.0	24.0	32	23325.0	1866	3040.6	2.8	1.79	0.52	2	1019	22	25475.0	NBH14-0022-253	1	42	15	1050.0	13.0	19	887.5	71	229.8	2.8	2.46	0.84	2	29	11	725.0	NBH14-0026-216	1	605	46	15125.0	47.5	58	16325.0	1306	1697.1	2.1	2.84	0.70	2	701	49	17525.0	NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58	2	272	17	6800.0	NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0								
NBH14-0010-130	1	850	14	21250.0	14.5	17	22750.0	1820	2121.3	0.7	0.60	0.21																																																																																																																																																																																																																				
	2	970	15	24250.0									NBH14-0014-134	1	979	17	24475.0	19.5	24	33425.0	2674	?	3.5	1.53	0.48	2	1695	22	42375.0	NBH14-0018-150	1	847	26	21175.0	24.0	32	23325.0	1866	3040.6	2.8	1.79	0.52	2	1019	22	25475.0	NBH14-0022-253	1	42	15	1050.0	13.0	19	887.5	71	229.8	2.8	2.46	0.84	2	29	11	725.0	NBH14-0026-216	1	605	46	15125.0	47.5	58	16325.0	1306	1697.1	2.1	2.84	0.70	2	701	49	17525.0	NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58	2	272	17	6800.0	NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																									
NBH14-0014-134	1	979	17	24475.0	19.5	24	33425.0	2674	?	3.5	1.53	0.48																																																																																																																																																																																																																				
	2	1695	22	42375.0									NBH14-0018-150	1	847	26	21175.0	24.0	32	23325.0	1866	3040.6	2.8	1.79	0.52	2	1019	22	25475.0	NBH14-0022-253	1	42	15	1050.0	13.0	19	887.5	71	229.8	2.8	2.46	0.84	2	29	11	725.0	NBH14-0026-216	1	605	46	15125.0	47.5	58	16325.0	1306	1697.1	2.1	2.84	0.70	2	701	49	17525.0	NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58	2	272	17	6800.0	NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																										
NBH14-0018-150	1	847	26	21175.0	24.0	32	23325.0	1866	3040.6	2.8	1.79	0.52																																																																																																																																																																																																																				
	2	1019	22	25475.0									NBH14-0022-253	1	42	15	1050.0	13.0	19	887.5	71	229.8	2.8	2.46	0.84	2	29	11	725.0	NBH14-0026-216	1	605	46	15125.0	47.5	58	16325.0	1306	1697.1	2.1	2.84	0.70	2	701	49	17525.0	NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58	2	272	17	6800.0	NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																											
NBH14-0022-253	1	42	15	1050.0	13.0	19	887.5	71	229.8	2.8	2.46	0.84																																																																																																																																																																																																																				
	2	29	11	725.0									NBH14-0026-216	1	605	46	15125.0	47.5	58	16325.0	1306	1697.1	2.1	2.84	0.70	2	701	49	17525.0	NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58	2	272	17	6800.0	NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																												
NBH14-0026-216	1	605	46	15125.0	47.5	58	16325.0	1306	1697.1	2.1	2.84	0.70																																																																																																																																																																																																																				
	2	701	49	17525.0									NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58	2	272	17	6800.0	NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																																													
NBH14-0030-220	1	290	24	7250.0	20.5	26	7025.0	562	318.2	4.9	1.90	0.58																																																																																																																																																																																																																				
	2	272	17	6800.0									NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82	2	55	14	1375.0	NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																																																														
NBH14-0034-235	1	22	7	550.0	10.5	17	962.5	77	583.4	4.9	2.32	0.82																																																																																																																																																																																																																				
	2	55	14	1375.0									NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97	2	6	5	150.0	NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																																																																															
NBH14-0038-240	1	0	0	0.0	2.5	5	75.0	6	106.1	3.5	1.56	0.97																																																																																																																																																																																																																				
	2	6	5	150.0									NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63	2	484	24	12100.0	NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																																																																																																
NBH14-0042-245	1	458	20	11450.0	22.0	33	11775.0	942	459.6	2.8	2.19	0.63																																																																																																																																																																																																																				
	2	484	24	12100.0									NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65	2	238	29	5950.0	NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																																																																																																																	
NBH14-0046-146	1	351	34	8775.0	31.5	41	7362.5	589	1997.6	3.5	2.41	0.65																																																																																																																																																																																																																				
	2	238	29	5950.0									NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37	2	736	24	18400.0	NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																																																																																																																																		
NBH14-0050-140	1	1123	22	28075.0	23.0	30	23237.5	1859	6841.3	1.4	1.25	0.37																																																																																																																																																																																																																				
	2	736	24	18400.0									NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70	2	391	33	9775.0																																																																																																																																																																																																			
NBH14-0054-202	1	311	33	7775.0	33.0	39	8775.0	702	1414.2	0.0	2.58	0.70																																																																																																																																																																																																																				
	2	391	33	9775.0																																																																																																																																																																																																																												

Station Name	Rep	No. of Indvs	No. of Taxa	Density	Mean No. of Taxa	Total No. Taxa	Mean Density	Total No. Indv	Density (SD)	Taxa SD	Diversity H'	Evenness J'																																																																																																																																																																																																																				
NBH14-0058-151	1	713	31	17825.0	33.5	45	14612.5	1169	4543.2	3.5	2.07	0.54																																																																																																																																																																																																																				
	2	456	36	11400.0									NBH14-0062-147	1	407	27	10175.0	25.5	36	9575.0	766	848.5	2.1	1.92	0.54	2	359	24	8975.0	NBH14-0066-135	1	1305	22	32625.0	21.5	29	41350.0	3308	?	0.7	1.20	0.36	2	2003	21	50075.0	NBH14-0070-155	1	1290	27	32250.0	29.5	38	37012.5	2961	6735.2	3.5	1.75	0.48	2	1671	32	41775.0	NBH14-0074-333	1	576	67	14400.0	59.5	89	15362.5	1229	1361.2	10.6	3.05	0.68	2	653	52	16325.0	NBH14-0078-339	1	623	37	15575.0	34.0	43	14737.5	1179	1184.4	4.2	2.46	0.66	2	556	31	13900.0	NBH14-0082-346	1	310	48	7750.0	54.0	77	7575.0	606	247.5	8.5	3.51	0.81	2	296	60	7400.0	NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65	2	501	32	12525.0	NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5
NBH14-0062-147	1	407	27	10175.0	25.5	36	9575.0	766	848.5	2.1	1.92	0.54																																																																																																																																																																																																																				
	2	359	24	8975.0									NBH14-0066-135	1	1305	22	32625.0	21.5	29	41350.0	3308	?	0.7	1.20	0.36	2	2003	21	50075.0	NBH14-0070-155	1	1290	27	32250.0	29.5	38	37012.5	2961	6735.2	3.5	1.75	0.48	2	1671	32	41775.0	NBH14-0074-333	1	576	67	14400.0	59.5	89	15362.5	1229	1361.2	10.6	3.05	0.68	2	653	52	16325.0	NBH14-0078-339	1	623	37	15575.0	34.0	43	14737.5	1179	1184.4	4.2	2.46	0.66	2	556	31	13900.0	NBH14-0082-346	1	310	48	7750.0	54.0	77	7575.0	606	247.5	8.5	3.51	0.81	2	296	60	7400.0	NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65	2	501	32	12525.0	NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0								
NBH14-0066-135	1	1305	22	32625.0	21.5	29	41350.0	3308	?	0.7	1.20	0.36																																																																																																																																																																																																																				
	2	2003	21	50075.0									NBH14-0070-155	1	1290	27	32250.0	29.5	38	37012.5	2961	6735.2	3.5	1.75	0.48	2	1671	32	41775.0	NBH14-0074-333	1	576	67	14400.0	59.5	89	15362.5	1229	1361.2	10.6	3.05	0.68	2	653	52	16325.0	NBH14-0078-339	1	623	37	15575.0	34.0	43	14737.5	1179	1184.4	4.2	2.46	0.66	2	556	31	13900.0	NBH14-0082-346	1	310	48	7750.0	54.0	77	7575.0	606	247.5	8.5	3.51	0.81	2	296	60	7400.0	NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65	2	501	32	12525.0	NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																									
NBH14-0070-155	1	1290	27	32250.0	29.5	38	37012.5	2961	6735.2	3.5	1.75	0.48																																																																																																																																																																																																																				
	2	1671	32	41775.0									NBH14-0074-333	1	576	67	14400.0	59.5	89	15362.5	1229	1361.2	10.6	3.05	0.68	2	653	52	16325.0	NBH14-0078-339	1	623	37	15575.0	34.0	43	14737.5	1179	1184.4	4.2	2.46	0.66	2	556	31	13900.0	NBH14-0082-346	1	310	48	7750.0	54.0	77	7575.0	606	247.5	8.5	3.51	0.81	2	296	60	7400.0	NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65	2	501	32	12525.0	NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																										
NBH14-0074-333	1	576	67	14400.0	59.5	89	15362.5	1229	1361.2	10.6	3.05	0.68																																																																																																																																																																																																																				
	2	653	52	16325.0									NBH14-0078-339	1	623	37	15575.0	34.0	43	14737.5	1179	1184.4	4.2	2.46	0.66	2	556	31	13900.0	NBH14-0082-346	1	310	48	7750.0	54.0	77	7575.0	606	247.5	8.5	3.51	0.81	2	296	60	7400.0	NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65	2	501	32	12525.0	NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																											
NBH14-0078-339	1	623	37	15575.0	34.0	43	14737.5	1179	1184.4	4.2	2.46	0.66																																																																																																																																																																																																																				
	2	556	31	13900.0									NBH14-0082-346	1	310	48	7750.0	54.0	77	7575.0	606	247.5	8.5	3.51	0.81	2	296	60	7400.0	NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65	2	501	32	12525.0	NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																												
NBH14-0082-346	1	310	48	7750.0	54.0	77	7575.0	606	247.5	8.5	3.51	0.81																																																																																																																																																																																																																				
	2	296	60	7400.0									NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65	2	501	32	12525.0	NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																																													
NBH14-0086-340	1	739	45	18475.0	38.5	52	15500.0	1240	4207.3	9.2	2.55	0.65																																																																																																																																																																																																																				
	2	501	32	12525.0									NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74	2	725	54	18125.0	NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																																																														
NBH14-0090-341	1	758	56	18950.0	55.0	74	18537.5	1483	583.4	1.4	3.20	0.74																																																																																																																																																																																																																				
	2	725	54	18125.0									NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60	2	487	37	12175.0	NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																																																																															
NBH14-0094-334	1	509	40	12725.0	38.5	53	12450.0	996	388.9	2.1	2.36	0.60																																																																																																																																																																																																																				
	2	487	37	12175.0									NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54	2	525	34	13125.0	NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																																																																																																
NBH14-0098-335	1	616	31	15400.0	32.5	46	14262.5	1141	1608.7	2.1	2.06	0.54																																																																																																																																																																																																																				
	2	525	34	13125.0									NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74	2	404	58	10100.0	NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																																																																																																																	
NBH14-0102-349	1	195	39	4875.0	48.5	70	7487.5	599	3694.6	13.4	3.15	0.74																																																																																																																																																																																																																				
	2	404	58	10100.0									NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48	2	1271	48	31775.0	NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																																																																																																																																		
NBH14-0106-352	1	875	56	21875.0	52.0	75	26825.0	2146	7000.4	5.7	2.07	0.48																																																																																																																																																																																																																				
	2	1271	48	31775.0									NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67	2	425	45	10625.0																																																																																																																																																																																																			
NBH14-0110-345	1	480	32	12000.0	38.5	52	11312.5	905	972.3	9.2	2.63	0.67																																																																																																																																																																																																																				
	2	425	45	10625.0																																																																																																																																																																																																																												

Station Name	Rep	No. of Indvs	No. of Taxa	Density	Mean No. of Taxa	Total No. Taxa	Mean Density	Total No. Indv	Density (SD)	Taxa SD	Diversity H'	Evenness J'																																																																																																																																																																																																																				
NBH14-0114-318	1	844	72	21100.0	58.5	82	15712.5	1257	7619.1	19.1	2.89	0.65																																																																																																																																																																																																																				
	2	413	45	10325.0									NBH14-0118-311	1	1117	83	27925.0	76.5	104	25275.0	2022	3747.7	9.2	3.12	0.67	2	905	70	22625.0	NBH14-0122-306	1	99	30	2475.0	33.5	50	3587.5	287	1573.3	4.9	3.20	0.82	2	188	37	4700.0	NBH14-0126-221	1	668	16	16700.0	17.0	24	16437.5	1315	371.2	1.4	1.44	0.45	2	647	18	16175.0	NBH14-0130-249	1	260	27	6500.0	25.0	35	6387.5	511	159.1	2.8	2.39	0.67	2	251	23	6275.0	NBH14-0134-317	1	263	22	6575.0	25.5	35	7187.5	575	866.2	4.9	2.49	0.70	2	312	29	7800.0	NBH14-0138-309	1	120	18	3000.0	19.5	25	3137.5	251	194.5	2.1	2.41	0.75	2	131	21	3275.0	NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81	2	29	12	725.0	NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5
NBH14-0118-311	1	1117	83	27925.0	76.5	104	25275.0	2022	3747.7	9.2	3.12	0.67																																																																																																																																																																																																																				
	2	905	70	22625.0									NBH14-0122-306	1	99	30	2475.0	33.5	50	3587.5	287	1573.3	4.9	3.20	0.82	2	188	37	4700.0	NBH14-0126-221	1	668	16	16700.0	17.0	24	16437.5	1315	371.2	1.4	1.44	0.45	2	647	18	16175.0	NBH14-0130-249	1	260	27	6500.0	25.0	35	6387.5	511	159.1	2.8	2.39	0.67	2	251	23	6275.0	NBH14-0134-317	1	263	22	6575.0	25.5	35	7187.5	575	866.2	4.9	2.49	0.70	2	312	29	7800.0	NBH14-0138-309	1	120	18	3000.0	19.5	25	3137.5	251	194.5	2.1	2.41	0.75	2	131	21	3275.0	NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81	2	29	12	725.0	NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0								
NBH14-0122-306	1	99	30	2475.0	33.5	50	3587.5	287	1573.3	4.9	3.20	0.82																																																																																																																																																																																																																				
	2	188	37	4700.0									NBH14-0126-221	1	668	16	16700.0	17.0	24	16437.5	1315	371.2	1.4	1.44	0.45	2	647	18	16175.0	NBH14-0130-249	1	260	27	6500.0	25.0	35	6387.5	511	159.1	2.8	2.39	0.67	2	251	23	6275.0	NBH14-0134-317	1	263	22	6575.0	25.5	35	7187.5	575	866.2	4.9	2.49	0.70	2	312	29	7800.0	NBH14-0138-309	1	120	18	3000.0	19.5	25	3137.5	251	194.5	2.1	2.41	0.75	2	131	21	3275.0	NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81	2	29	12	725.0	NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																									
NBH14-0126-221	1	668	16	16700.0	17.0	24	16437.5	1315	371.2	1.4	1.44	0.45																																																																																																																																																																																																																				
	2	647	18	16175.0									NBH14-0130-249	1	260	27	6500.0	25.0	35	6387.5	511	159.1	2.8	2.39	0.67	2	251	23	6275.0	NBH14-0134-317	1	263	22	6575.0	25.5	35	7187.5	575	866.2	4.9	2.49	0.70	2	312	29	7800.0	NBH14-0138-309	1	120	18	3000.0	19.5	25	3137.5	251	194.5	2.1	2.41	0.75	2	131	21	3275.0	NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81	2	29	12	725.0	NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																										
NBH14-0130-249	1	260	27	6500.0	25.0	35	6387.5	511	159.1	2.8	2.39	0.67																																																																																																																																																																																																																				
	2	251	23	6275.0									NBH14-0134-317	1	263	22	6575.0	25.5	35	7187.5	575	866.2	4.9	2.49	0.70	2	312	29	7800.0	NBH14-0138-309	1	120	18	3000.0	19.5	25	3137.5	251	194.5	2.1	2.41	0.75	2	131	21	3275.0	NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81	2	29	12	725.0	NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																											
NBH14-0134-317	1	263	22	6575.0	25.5	35	7187.5	575	866.2	4.9	2.49	0.70																																																																																																																																																																																																																				
	2	312	29	7800.0									NBH14-0138-309	1	120	18	3000.0	19.5	25	3137.5	251	194.5	2.1	2.41	0.75	2	131	21	3275.0	NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81	2	29	12	725.0	NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																												
NBH14-0138-309	1	120	18	3000.0	19.5	25	3137.5	251	194.5	2.1	2.41	0.75																																																																																																																																																																																																																				
	2	131	21	3275.0									NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81	2	29	12	725.0	NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																																													
NBH14-0142-310	1	44	10	1100.0	11.0	17	912.5	73	265.2	1.4	2.29	0.81																																																																																																																																																																																																																				
	2	29	12	725.0									NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52	2	774	61	19350.0	NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																																																														
NBH14-0146-304	1	690	38	17250.0	49.5	73	18300.0	1464	1484.9	16.3	2.24	0.52																																																																																																																																																																																																																				
	2	774	61	19350.0									NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54	2	897	38	22425.0	NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																																																																															
NBH14-0150-250	1	1181	49	29525.0	43.5	59	25975.0	2078	5020.5	7.8	2.19	0.54																																																																																																																																																																																																																				
	2	897	38	22425.0									NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62	2	255	17	6375.0	NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																																																																																																
NBH14-0154-105	1	331	20	8275.0	18.5	25	7325.0	586	1343.5	2.1	1.98	0.62																																																																																																																																																																																																																				
	2	255	17	6375.0									NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32	2	747	19	18675.0	NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																																																																																																																	
NBH14-0158-109	1	553	11	13825.0	15.0	23	16250.0	1300	3429.5	5.7	1.00	0.32																																																																																																																																																																																																																				
	2	747	19	18675.0									NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33	2	248	13	6200.0	NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																																																																																																																																		
NBH14-0162-115	1	339	11	8475.0	12.0	17	7337.5	587	1608.7	1.4	0.94	0.33																																																																																																																																																																																																																				
	2	248	13	6200.0									NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57	2	687	34	17175.0																																																																																																																																																																																																			
NBH14-0166-154	1	514	36	12850.0	35.0	46	15012.5	1201	3058.2	1.4	2.18	0.57																																																																																																																																																																																																																				
	2	687	34	17175.0																																																																																																																																																																																																																												

Station Name	Rep	No. of Indvs	No. of Taxa	Density	Mean No. of Taxa	Total No. Taxa	Mean Density	Total No. Indv	Density (SD)	Taxa SD	Diversity H'	Evenness J'
NBH14-0170-139	1	144	24	3600.0	21.5	31	3475.0	278	176.8	3.5	1.92	0.56
	2	134	19	3350.0								
NBH14-0174-131	1	2198	23	54950.0	24.5	29	58700.0	4696	5303.3	2.1	1.13	0.33
	2	2498	26	62450.0								
NBH14-0229-108	1	1514	23	37850.0	23.0	27	36775.0	2942	1520.3	0.0	2.10	0.64
	2	1428	23	35700.0								
NBH14-0212-111	1	1485	28	37125.0	26.0	33	39037.5	3123	2704.7	2.8	1.93	0.55
	2	1638	24	40950.0								
NBH14-0208-114	1	1224	30	30600.0	27.5	32	27425.0	2194	4490.1	3.5	2.42	0.70
	2	970	25	24250.0								
NBH14-0204-117	1	7800	34	?	29.5	40	309375.0	24750	?	6.4	0.97	0.26
	2	16950	25	?								
NBH14-0254-121	1	2865	22	71625.0	21.5	31	96587.5	7727	?	0.7	0.83	0.24
	2	4862	21	?								
NBH14-0250-123	1	1225	27	30625.0	24.5	29	28075.0	2246	3606.2	3.5	1.59	0.47
	2	1021	22	25525.0								
NBH14-0225-126	1	4881	12	?	14.5	21	89425.0	7154	?	3.5	0.65	0.21
	2	2273	17	56825.0								
NBH14-0246-128	1	1687	20	42175.0	23.0	29	37850.0	3028	6116.5	4.2	1.27	0.38
	2	1341	26	33525.0								
NBH14-0221-138	1	895	34	22375.0	29.0	39	21450.0	1716	1308.1	7.1	1.74	0.48
	2	821	24	20525.0								
NBH14-0216-152	1	275	26	6875.0	26.5	35	10937.5	875	5745.2	0.7	2.38	0.67
	2	600	27	15000.0								
NBH14-0327-204	1	629	14	15725.0	14.0	21	12662.5	1013	4331.0	0.0	1.39	0.46
	2	384	14	9600.0								
NBH14-0266-207	1	1269	20	31725.0	19.5	24	38187.5	3055	9139.4	0.7	1.98	0.62
	2	1786	19	44650.0								

Station Name	Rep	No. of Indvs	No. of Taxa	Density	Mean No. of Taxa	Total No. Taxa	Mean Density	Total No. Indv	Density (SD)	Taxa SD	Diversity H'	Evenness J'																																																																																																																																																																																																																				
NBH14-0262-208	1	952	24	23800.0	30.5	43	24587.5	1967	1113.7	9.2	2.41	0.64																																																																																																																																																																																																																				
	2	1015	37	25375.0									NBH14-0323-211	1	735	24	18375.0	23.5	29	19675.0	1574	1838.5	0.7	1.83	0.54	2	839	23	20975.0	NBH14-0319-212	1	290	12	7250.0	12.5	15	6400.0	512	1202.1	0.7	1.60	0.59	2	222	13	5550.0	NBH14-0315-217	1	248	19	6200.0	17.5	22	6062.5	485	194.5	2.1	2.16	0.70	2	237	16	5925.0	NBH14-0258-218	1	950	25	23750.0	25.0	37	34475.0	2758	?	0.0	1.90	0.53	2	1808	25	45200.0	NBH14-0238-222	1	114	11	2850.0	12.0	16	3262.5	261	583.4	1.4	1.92	0.69	2	147	13	3675.0	NBH14-0242-224	1	330	17	8250.0	19.0	29	30462.5	2437	?	2.8	1.04	0.31	2	2107	21	52675.0	NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69	2	167	26	4175.0	NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0
NBH14-0323-211	1	735	24	18375.0	23.5	29	19675.0	1574	1838.5	0.7	1.83	0.54																																																																																																																																																																																																																				
	2	839	23	20975.0									NBH14-0319-212	1	290	12	7250.0	12.5	15	6400.0	512	1202.1	0.7	1.60	0.59	2	222	13	5550.0	NBH14-0315-217	1	248	19	6200.0	17.5	22	6062.5	485	194.5	2.1	2.16	0.70	2	237	16	5925.0	NBH14-0258-218	1	950	25	23750.0	25.0	37	34475.0	2758	?	0.0	1.90	0.53	2	1808	25	45200.0	NBH14-0238-222	1	114	11	2850.0	12.0	16	3262.5	261	583.4	1.4	1.92	0.69	2	147	13	3675.0	NBH14-0242-224	1	330	17	8250.0	19.0	29	30462.5	2437	?	2.8	1.04	0.31	2	2107	21	52675.0	NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69	2	167	26	4175.0	NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0								
NBH14-0319-212	1	290	12	7250.0	12.5	15	6400.0	512	1202.1	0.7	1.60	0.59																																																																																																																																																																																																																				
	2	222	13	5550.0									NBH14-0315-217	1	248	19	6200.0	17.5	22	6062.5	485	194.5	2.1	2.16	0.70	2	237	16	5925.0	NBH14-0258-218	1	950	25	23750.0	25.0	37	34475.0	2758	?	0.0	1.90	0.53	2	1808	25	45200.0	NBH14-0238-222	1	114	11	2850.0	12.0	16	3262.5	261	583.4	1.4	1.92	0.69	2	147	13	3675.0	NBH14-0242-224	1	330	17	8250.0	19.0	29	30462.5	2437	?	2.8	1.04	0.31	2	2107	21	52675.0	NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69	2	167	26	4175.0	NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																									
NBH14-0315-217	1	248	19	6200.0	17.5	22	6062.5	485	194.5	2.1	2.16	0.70																																																																																																																																																																																																																				
	2	237	16	5925.0									NBH14-0258-218	1	950	25	23750.0	25.0	37	34475.0	2758	?	0.0	1.90	0.53	2	1808	25	45200.0	NBH14-0238-222	1	114	11	2850.0	12.0	16	3262.5	261	583.4	1.4	1.92	0.69	2	147	13	3675.0	NBH14-0242-224	1	330	17	8250.0	19.0	29	30462.5	2437	?	2.8	1.04	0.31	2	2107	21	52675.0	NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69	2	167	26	4175.0	NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																										
NBH14-0258-218	1	950	25	23750.0	25.0	37	34475.0	2758	?	0.0	1.90	0.53																																																																																																																																																																																																																				
	2	1808	25	45200.0									NBH14-0238-222	1	114	11	2850.0	12.0	16	3262.5	261	583.4	1.4	1.92	0.69	2	147	13	3675.0	NBH14-0242-224	1	330	17	8250.0	19.0	29	30462.5	2437	?	2.8	1.04	0.31	2	2107	21	52675.0	NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69	2	167	26	4175.0	NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																											
NBH14-0238-222	1	114	11	2850.0	12.0	16	3262.5	261	583.4	1.4	1.92	0.69																																																																																																																																																																																																																				
	2	147	13	3675.0									NBH14-0242-224	1	330	17	8250.0	19.0	29	30462.5	2437	?	2.8	1.04	0.31	2	2107	21	52675.0	NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69	2	167	26	4175.0	NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																												
NBH14-0242-224	1	330	17	8250.0	19.0	29	30462.5	2437	?	2.8	1.04	0.31																																																																																																																																																																																																																				
	2	2107	21	52675.0									NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69	2	167	26	4175.0	NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																																													
NBH14-0303-225	1	454	43	11350.0	34.5	50	7762.5	621	5073.5	12.0	2.70	0.69																																																																																																																																																																																																																				
	2	167	26	4175.0									NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58	2	347	17	8675.0	NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																																																														
NBH14-0307-226	1	420	26	10500.0	21.5	32	9587.5	767	1290.5	6.4	2.00	0.58																																																																																																																																																																																																																				
	2	347	17	8675.0									NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77	2	64	18	1600.0	NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																																																																															
NBH14-0311-227	1	114	17	2850.0	17.5	22	2225.0	178	883.9	0.7	2.38	0.77																																																																																																																																																																																																																				
	2	64	18	1600.0									NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49	2	307	19	7675.0	NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																																																																																																
NBH14-0200-230	1	816	21	20400.0	20.0	27	14037.5	1123	8997.9	1.4	1.60	0.49																																																																																																																																																																																																																				
	2	307	19	7675.0									NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85	2	81	21	2025.0	NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																																																																																																																	
NBH14-0198-231	1	26	11	650.0	16.0	24	1337.5	107	972.3	7.1	2.70	0.85																																																																																																																																																																																																																				
	2	81	21	2025.0									NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75	2	43	14	1075.0	NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																																																																																																																																		
NBH14-0194-236	1	191	24	4775.0	19.0	26	2925.0	234	2616.3	7.1	2.45	0.75																																																																																																																																																																																																																				
	2	43	14	1075.0									NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57	2	690	41	17250.0																																																																																																																																																																																																			
NBH14-0190-237	1	322	43	8050.0	42.0	59	12650.0	1012	6505.4	1.4	2.32	0.57																																																																																																																																																																																																																				
	2	690	41	17250.0																																																																																																																																																																																																																												

Station Name	Rep	No. of Indvs	No. of Taxa	Density	Mean No. of Taxa	Total No. Taxa	Mean Density	Total No. Indv	Density (SD)	Taxa SD	Diversity H'	Evenness J'
NBH14-0186-241	1	225	29	5625.0	26.0	36	5825.0	466	282.8	4.2	2.34	0.65
	2	241	23	6025.0								
NBH14-0182-242	1	237	18	5925.0	21.5	29	9212.5	737	4649.2	4.9	1.65	0.49
	2	500	25	12500.0								
NBH14-0178-247	1	445	13	11125.0	16.0	21	10475.0	838	919.2	4.2	1.75	0.57
	2	393	19	9825.0								
NBH14-0282-323	1	33	10	825.0	13.0	17	850.0	68	35.4	4.2	2.42	0.85
	2	35	16	875.0								
NBH14-0286-324	1	330	44	8250.0	35.5	53	6150.0	492	2969.8	12.0	2.89	0.73
	2	162	27	4050.0								
NBH14-0290-325	1	306	31	7650.0	35.0	48	7612.5	609	53.0	5.7	2.92	0.76
	2	303	39	7575.0								
NBH14-0278-331	1	658	54	16450.0	46.0	66	12175.0	974	6045.8	11.3	2.87	0.68
	2	316	38	7900.0								
NBH14-0270-332	1	213	50	5325.0	43.5	64	4212.5	337	1573.3	9.2	3.44	0.83
	2	124	37	3100.0								
NBH14-0274-338	1	306	24	7650.0	36.0	52	14162.5	1133	9210.1	17.0	2.38	0.60
	2	827	48	20675.0								

Appendix G
Data Validation Reports

Grain Size Validation Report

This page left intentionally blank.

February 23, 2015

Ms. Deirdre Dahlen
Battelle
141 Longwater Drive
Suite 202
Norwell, MA 02061

Subject: NBH Data Validation

Dear Ms. Dahlen,

Enclosed are the final validation reports for the sample delivery groups (SDGs) listed below.

<u>SDG #</u>	<u>Fraction</u>	<u>Date Received for Validation</u>
GTX302366	Grain Size and TOC	1/6/15

The data validation was performed at Tier I+ level using the following guidelines, as applicable to each method:

- EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013

Please feel free to contact me if you have any questions.

Sincerely,



Elizabeth Cutié
Battelle Columbus Operations

Data Validation Report

Project Name: New Bedford Harbor
Collection Date: September 24-30, 2014
Report Date: February 23, 2015
Matrix: Sediment
Parameters: Grain Size
Validation Level: Tier I+
Laboratory: Battelle
Sample Delivery Group (SDG): GTX302366
Sample Identification:

NBH14-0001 through NBH14-0329

Introduction

This data review covers the sediment samples listed on the cover sheet. The samples were analyzed for grain size analyses by GeoTesting Express according to ASTM D422.

The laboratory selected 16 samples to analyze in duplicate. The following samples were analyzed in duplicate by the lab: NBH14-0010, 0028, 0050, 0066, 0086, 0110, 0125, 0149, 0173, 0188, 0200, 0242, 0262, 0282, 0311, and 0324.

The following grain size fractions were reported:

PARAM_CODE	DESCRIPTION
GRAVEL	Gravel (>2.00 mm)
SAND_VCO	Very Course Sand (1.00-2.00 mm)
SAND_CO	Course Sand (0.50-1.00 mm)
SAND_MED	Medium Sand (0.25-0.50 mm)
SAND_FI	Fine Sand (0.125-0.25 mm)
SAND_VFI	Very Fine Sand (0.063-0.125 mm)
SILT	Silt (0.0039-0.0625 mm)
CLAY	Clay (<0.00391 mm)

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

New Bedford Harbor

Grain Size - Data Qualification Summary - SDG GTX302366

SDG	Sample IDs	Compound	Flag	Reason
GTX302366	NBH14-0010 & DUP	CLAY SAND_VFI SAND_MED	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0028 & DUP	SAND_VCO	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0050 & DUP	GRAVEL, SAND_FI	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0066 & DUP	SILT	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0110 & DUP	SAND_FI	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0125 & DUP	GRAVEL	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0149 & DUP	CLAY	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0173 & DUP	CLAY SAND_VFI SAND_MED SAND_CO	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0188 & DUP	GRAVEL	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0200 & DUP	GRAVEL CLAY SAND_VFI SAND_FI SAND_MED SAND_VCO	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0242 & DUP	CLAY SAND_MED	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0262 & DUP	SAND_MED	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0282 & DUP	SAND_VFI SAND_CO	J/detects	The lab duplicate pair did not meet the %RPD criteria.
	NBH14-0311 & DUP	SAND_MED SAND_VCO	J/detects	The lab duplicate pair did not meet the %RPD criteria.

Laboratory: GeoTesting Express

Laboratory Batch: GTX302366

Analysis: Grain Size

Matrix: Sediment

Collection Date: 9/25, 9/26, 9/29 and 9/30/14

Reviewer: B. Cutie

Review Date: 2/20/15

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	None specified	Yes/ shipped at 4±2°C with total organic carbon samples.
Lab Duplicates	1 per 20 samples or per batch or 5% of field samples; RPD ≤ 20% for results >5x RL	No/There were 16 duplicate pairs in the dataset. Fourteen of the duplicate pairs did not meet the RPD criteria. See report narrative.

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

This page left intentionally blank.

TOC Validation Report

This page left intentionally blank.

Data Validation Report

Project Name: New Bedford Harbor

Collection Date: September 22 - 30, 2014

Report Date: February 23, 2015

Matrix: Sediment

Parameters: Total Organic Carbon

Validation Level: Tier I+

Laboratory: Battelle

Sample Delivery Group (SDG): L14422692, L1423076, L1423331

Sample Identification:
NBH14-0001 through NBH14-0329

Introduction

This data review covers the sediment samples listed on the cover sheet. The samples were analyzed by Alpha Analytical for total organic carbon (TOC). The TOC reports are contained within GeoTesting Express report # GTX 302366 (Grain Size).

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

New Bedford Harbor

TOC - Data Qualification Summary

No Sample Data Qualified in these SDGs

Laboratory: Alpha Analytical

Laboratory Batch: L1422692*

Analysis: Total Organic Carbon

Matrix: Sediment

Collection Date: 9/22-9/23-14

Reviewer: B. Cutie

Review Date: 2/19/15

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	4 ± 2°C; Analyze on 28 days	Yes
Method Blank	1 per batch; target analytes < RL	Yes
Standard Reference Material (SRM)	1 per batch; %R = 75-125%; RPD ≤ 25%	Yes
Lab Duplicates	1 per 20 samples or 5% of field samples; RPD ≤ 25%	Yes
Field Replicates ¹	RPD ≤ 50%	Yes

* NOTE: This report is contained in Grain Size report # GTX302366.

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

¹ Per QAPP, all field samples are analyzed in duplicate.

Laboratory: Alpha Analytical

Laboratory Batch: L1423076*

Analysis: Total Organic Carbon

Matrix: Sediment

Collection Date: 9/24-9/25/14

Reviewer: B. Cutie

Review Date: 2/19/15

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	4 ± 2°C; Analyze on 28 days	Yes
Method Blank	1 per batch; target analytes < RL	Yes
Standard Reference Material (SRM)	1 per batch; %R = 75-125%; RPD ≤ 25%	Yes
Lab Duplicates	1 per 20 samples or 5% of field samples; RPD ≤ 25%	Yes
Field Replicates ¹	RPD ≤ 50%	Yes

* NOTE: This report is contained in Grain Size report # GTX302366.

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

¹ Per QAPP, all field samples are analyzed in duplicate.

Laboratory: Alpha Analytical

Laboratory Batch: L1423331*

Analysis: Total Organic Carbon

Matrix: Sediment

Collection Date: 9/25, 9/26, 9/29 and 9/30/14

Reviewer: B. Cutie

Review Date: 2/20/15

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	4 ± 2°C; Analyze on 28 days	Yes
Method Blank	1 per batch; target analytes < RL	Yes
Standard Reference Material (SRM)	1 per batch; %R = 75-125%; RPD ≤ 25%	Yes
Lab Duplicates	1 per 20 samples or 5% of field samples; RPD ≤ 25%	Yes
Field Replicates ¹	RPD ≤ 50%	Yes

* NOTE: This report is contained in Grain Size report # GTX302366.

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

¹ Per QAPP, all field samples are analyzed in duplicate.

Total PCB Validation Report

This page left intentionally blank.

February 13, 2015

Ms. Deirdre Dahlen
Battelle
141 Longwater Drive
Suite 202
Norwell, MA 02061

Subject: NBH Data Validation

Dear Ms. Dahlen,

Enclosed are the final validation reports for the sample delivery groups (SDGs) listed below. These SDGs have been validated against the criteria in the long term monitoring (LTM) QAPP.

<u>SDG #</u>	<u>Fraction</u>	<u>Date Received for Validation</u>
14-0493	PCBs – Congeners	1/6/15
14-0494	PCBs – Congeners	1/6/15
14-0495	PCBs – Congeners	1/6/15
14-0595	PCBs – Congeners	1/6/15

The data validation was performed at Tier I+ level using the following guidelines, as applicable to each method:

- EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013
- EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- EPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010

Please feel free to contact me if you have any questions.

Sincerely,



Elizabeth Cutié
Battelle Columbus Operations

Data Validation Report

Project Name: New Bedford Harbor
Collection Date: September 22-26 and 29, 2014
Report Date: February 4, 2015
Matrix: Sediment
Parameters: PCB Congeners
Validation Level: Tier I+
Laboratory: Battelle
Sample Delivery Group (SDG): 14-0493

Sample Identification:

NBH14-0001
NBH14-0005
NBH14-0009
NBH14-0013
NBH14-0065
NBH14-0207
NBH14-0211
NBH14-0220
NBH14-0224
NBH14-0228
NBH14-0232
NBH14-0245
NBH14-0249
NBH14-0253
NBH14-0101
NBH14-0153
NBH14-0157
NBH14-0161
NBH14-0169
NBH14-0173

Introduction

This data review covers 20 sediment samples listed on the cover sheet. The analyses of PCB Congeners (18 congeners) were performed according to Battelle SOP 5-128 (GC/ECD).

The Duplicate Pair is NBH14-0232 and NBH14-0169.

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

**New Bedford Harbor
PCB Congeners - Data Qualification Summary - SDG 14-0493**

SDG	Sample IDs	Compound	Flag	Reason
14-0493	NBH14-0161	All reported PCBs	J/UJ (detects /non- detects)	No/ Surrogates were diluted out of sample NBH14-0161. Dilutions were required because PCB congeners responded above the upper limit of the linear calibration. PCB results will be flagged J (detects) or UJ (non-detects) for the sample without surrogate recoveries.

Laboratory: Battelle Norwell

Laboratory Batch: 14-0493

Analysis: PCBs by GC/ECD

Reviewer: B. Cutie

Review Date: 2/2/15 and 2/13/15

Matrix: Sediment

Collection Date: 9/22-9/26, 9/29/14

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Ice, 4°C ± 2°C Extract within 14 days (cold) and 1 year (frozen) Analyze within 40 days	Yes/Frozen
Method Blank	Target Analytes < 5x ssMDL	Yes
Laboratory Control Sample/Laboratory Control Sample Duplicate	1 per batch; 70-130 %Recovery	Yes
Matrix Spike/ Matrix Spike Duplicate	70 - 130% Recovery and RPD ≤ 30% for compounds spiked at a concentration > 5x background	Yes
Internal Standards	-50% to +100% of area counts in ICAL	Yes
Field Replicates	RPD ≤ 50%	Yes
Surrogate Spike (Organics)	Recovery results between 40% and 120%.	No/ Surrogates were diluted out of sample ID# 14-0161. Dilutions were required because PCB congeners responded above the upper limit of the linear calibration. PCB results will be flagged J (detects) or UJ (non-detects) for the sample without surrogate recoveries.
Standard Reference Material (SRM)	PD ≤ 30% from NIST 95% uncertainty range for compounds with certified concentrations >5x ssMDL	SRM was not included in the dataset. Requested a QAPP deviation report.

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Initial Calibration	ICAL - coefficient of determination > 0.995 (based on a linear curve fit)	Yes
Initial Calibration Verification (ICV)	ICV – runs immediately after ICAL; ICV ≤ 20 %D	Yes
Continuing Calibration Verification (CCV)	CCV - run every 12 hours or every 10 samples; CCV ≤ 20 %D	Yes
Percent solids	≥ 50% for all; reported as dry-weight basis	Yes

*Duplicate Pair is NBH14-0232 and NBH14-0169

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

Data Validation Report

Project Name: New Bedford Harbor
Collection Date: September 22 - 26, 29 and 30, 2014
Report Date: February 4, 2015
Matrix: Sediment
Parameters: PCB Congeners
Validation Level: Tier I+
Laboratory: Battelle
Sample Delivery Group (SDG): 14-0494

Sample Identification:

NBH14-0017
NBH14-0025
NBH14-0045
NBH14-0049
NBH14-0053
NBH14-0061
NBH14-0057
NBH14-0069
NBH14-0203
NBH14-0215
NBH14-0219
NBH14-0234
NBH14-0257
NBH14-0261
NBH14-0265
NBH14-0314
NBH14-0318
NBH14-0322
NBH14-0326
NBH14-0165

Introduction

This data review covers 20 sediment samples listed on the cover sheet. The analyses of PCB Congeners (18 congeners) were performed according to Battelle SOP 5-128 (GC/ECD).

Duplicate Pair 1 is NBH14-0215 and NBH14-0219

Duplicate Pair 2 is NBH14-0121 (reported in dataset 14-0495) and NBH14-0234

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

**New Bedford Harbor
PCB Congeners - Data Qualification Summary - SDG 14-0494**

SDG	Sample IDs	Compound	Flag	Reason
14-0494	NBH14-0215, NBH14-0219	PCB 206	J/(detects)	PCB 206 did not meet criteria for the duplicate pair 1. PCB results will be flagged J (detects) or UJ (non-detects) for these samples.
14-0494	NBH14-0121 (reported in dataset 14-0495), NBH14-0234	PCB 66	J/(detects)	PCB 66 did not meet criteria for the duplicate pair 2. PCB results will be flagged J (detects) or UJ (non-detects) for these samples.

Laboratory: Battelle Norwell

Laboratory Batch: 14-0494

Analysis: PCBs by GC/ECD

Reviewer: B. Cutie

Review Date: 2/2/15 and 2/13/15

Matrix: Sediment

Collection Date: 9/22-9/26, 9/29 and 9/30/14

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Ice, 4°C ± 2°C Extract within 14 days (cold) and 1 year (frozen) Analyze within 40 days	Yes/Frozen
Method Blank	Target Analytes < 5x ssMDL	Yes
Laboratory Control Sample/Laboratory Control Sample Duplicate	1 per batch; 70-130 %Recovery	Yes
Matrix Spike/ Matrix Spike Duplicate	70 - 130% Recovery and RPD ≤ 30% for compounds spiked at a concentration > 5x background	Yes
Internal Standards	-50% to +100% of area counts in ICAL	Yes
Field Replicates	RPD ≤ 50%	No/PCB 206 did not meet criteria for the duplicate pair 1. No/PCB 66 did not meet criteria for the duplicate pair 1. PCB results will be flagged J (detects) or UJ (non-detects) for these samples.
Surrogate Spike (Organics)	Recovery results between 40% and 120%.	Yes
Standard Reference Material (SRM)	PD ≤ 30% from NIST 95% uncertainty range for compounds with certified concentrations >5x ssMDL	SRM was not included in the dataset. Requested a QAPP deviation report.
Initial Calibration	ICAL - coefficient of determination > 0.995 (based on a linear curve fit)	Yes
Initial Calibration Verification (ICV)	ICV – runs immediately after ICAL; ICV ≤ 20 %D	Yes

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Continuing Calibration Verification (CCV)	CCV - run every 12 hours or every 10 samples; $CCV \leq 20\%D$	Yes
Percent solids	$\geq 50\%$ for all; reported as dry-weight basis	Yes

*Duplicate Pair 1 is NBH14-0215 and NBH14-0219

* Duplicate Pair 2 is NBH14-0121 (reported in dataset 14-0495) and NBH14-0234

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

Data Validation Report

Project Name: New Bedford Harbor
Collection Date: September 22, 24, 25, 26, 29 and 30, 2014
Report Date: February 4, 2015
Matrix: Sediment
Parameters: PCB Congeners
Validation Level: Tier I+
Laboratory: Battelle
Sample Delivery Group (SDG): 14-0495

Sample Identification:

NBH14-0029
NBH14-0033
NBH14-0037
NBH14-0041
NBH14-0181
NBH14-0185
NBH14-0189
NBH14-0193
NBH14-0197
NBH14-0199
NBH14-0233
NBH14-0237
NBH14-0241
NBH14-0302
NBH14-0306
NBH14-0310
NBH14-0121
NBH14-0125
NBH14-0129
NBH14-0177

Introduction

This data review covers 20 sediment samples listed on the cover sheet. The analyses of PCB Congeners (18 congeners) were performed according to Battelle SOP 5-128 (GC/ECD).

Duplicate Pair 1 is NBH14-0181 and NBH14-0233

Duplicate Pair 2 is NBH14-0121 and NBH14-0234 (reported in dataset 14-0494)

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

**New Bedford Harbor
PCB Congeners - Data Qualification Summary - SDG 14-0495**

SDG	Sample IDs	Compound	Flag	Reason
14-0495	NBH14-0029, NBH14-0033, NBH14-0037, NBH14-0041, NBH14-0181, NBH14-0185, NBH14-0189	PCB 206, PCB 209	J/UJ (detects/non -detects)	PCB 206 and PCB 209 did not meet criteria in one CCV. PCB results will be flagged J (detects) or UJ (non-detects) for the associated samples.
14-0495	NBH14-0121, NBH14-0234 (reported in dataset 14-0494)	PCB 66	J/(detects)	PCB 66 did not meet criteria for duplicate pair 2. PCB results will be flagged J (detects) or UJ (non-detects) for these samples.

Laboratory: Battelle Norwell

Laboratory Batch: 14-0495

Analysis: PCBs by GC/ECD

Reviewer: B. Cutie

Review Date: 2/3/15 and 2/13/15

Matrix: Sediment

Collection Date: 9/22, 9/24-9/26, 9/29 and 9/30/14

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Ice, 4°C ± 2°C Extract within 14 days (cold) and 1 year (frozen) Analyze within 40 days	Yes/Frozen
Method Blank	Target Analytes < 5x ssMDL	Yes
Laboratory Control Sample/Laboratory Control Sample Duplicate	1 per batch; 70-130 %Recovery	Yes
Matrix Spike/ Matrix Spike Duplicate	70 - 130% Recovery and RPD ≤ 30% for compounds spiked at a concentration > 5x background	Yes
Internal Standards	-50% to +100% of area counts in ICAL	Yes
Field Replicates	RPD ≤ 50%	No/PCB 66 did not meet criteria for duplicate pair 2. PCB results will be flagged J (detects) or UJ (non-detects) for these samples.
Surrogate Spike (Organics)	Recovery results between 40% and 120%.	Yes
Standard Reference Material (SRM)	PD ≤ 30% from NIST 95% uncertainty range for compounds with certified concentrations >5x ssMDL	SRM was not included in the dataset. Requested a QAPP deviation report.
Initial Calibration	ICAL - coefficient of determination > 0.995 (based on a linear curve fit)	Yes
Initial Calibration Verification (ICV)	ICV – runs immediately after ICAL; ICV ≤ 20 %D	Yes
Continuing Calibration Verification (CCV)	CCV - run every 12 hours or every 10 samples; CCV ≤ 20 %D	No/PCB 206 and PCB 209 did not meet criteria in one

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
		of the CCVs (File M7442.D). Affected samples were analyzed after the failing CCV and before the next passing CCV. PCB results will be flagged J (detects) or UJ (non-detects) for these samples.
Percent solids	≥ 50% for all; reported as dry-weight basis	Yes

*Duplicate Pair 1 is NBH14-0181 and NBH14-0233

*Duplicate Pair 2 is NBH14-0121 and NBH14-0234 (reported in dataset 14-0494)

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

Data Validation Report

Project Name: New Bedford Harbor
Collection Date: September 22 - 25 and 29, 2014
Report Date: February 4, 2015
Matrix: Sediment
Parameters: PCB Congeners
Validation Level: Tier I+
Laboratory: Battelle
Sample Delivery Group (SDG): 14-0496

Sample Identification:

NBH14-0021
NBH14-0077
NBH14-0089
NBH14-0093
NBH14-0097
NBH14-0269
NBH14-0273
NBH14-0277
NBH14-0281
NBH14-0285
NBH14-0289
NBH14-0109
NBH14-0113
NBH14-0117
NBH14-0133
NBH14-0137
NBH14-0141
NBH14-0145
NBH14-0149

Introduction

This data review covers 19 sediment samples listed on the cover sheet. The analyses of PCB Congeners (18 congeners) were performed according to Battelle SOP 5-128 (GC/ECD).

There was no Duplicate Pair in this dataset.

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

**New Bedford Harbor
PCB Congeners - Data Qualification Summary - SDG 14-0496**

No Sample Data Qualified in this SDG

Laboratory: Battelle Norwell

Laboratory Batch: 14-0496

Analysis: PCBs by GC/ECD

Reviewer: B. Cutie

Review Date: 2/4/15 and 2/13/15

Matrix: Sediment

Collection Date: 9/22-9/25 and 9/29/14

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Ice, 4°C ± 2°C Extract within 14 days (cold) and 1 year (frozen) Analyze within 40 days	Yes/Frozen
Method Blank	Target Analytes < 5x ssMDL	Yes
Laboratory Control Sample/Laboratory Control Sample Duplicate	1 per batch; 70-130 %Recovery	Yes
Matrix Spike/ Matrix Spike Duplicate	70 - 130% Recovery and RPD ≤ 30% for compounds spiked at a concentration > 5x background	Yes
Internal Standards	-50% to +100% of area counts in ICAL	Yes
Field Replicates	RPD ≤ 50%	Not applicable
Surrogate Spike (Organics)	Recovery results between 40% and 120%.	Yes
Standard Reference Material (SRM)	PD ≤ 30% from NIST 95% uncertainty range for compounds with certified concentrations >5x ssMDL	SRM was not included in the dataset. Requested a QAPP deviation report.
Initial Calibration	ICAL - coefficient of determination > 0.995 (based on a linear curve fit)	Yes
Initial Calibration Verification (ICV)	ICV – runs immediately after ICAL; ICV ≤ 20 %D	Yes
Continuing Calibration Verification (CCV)	CCV - run every 12 hours or every 10 samples; CCV ≤ 20 %D	Yes

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Percent solids	≥ 50% for all; reported as dry-weight basis	Yes

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

March 18, 2015

Attn: Ms. Deirdre Dahlen
Battelle
141 Longwater Drive
Suite 202
Norwell, MA 02061

Subject: NBH Data Validation

Dear Ms. Dahlen,

Enclosed is the final validation report for the sample delivery group (SDG) listed below.

<u>SDG #</u>	<u>Fraction</u>	<u>Date Received</u>
14-0497	PCBs – Total	3/5/15

The data validation was performed at the Tier I+ level using the following guidelines, as applicable to each method:

- EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013
- EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008

Please feel free to contact me if you have any questions.

Sincerely,



Elizabeth Cutié
Battelle Columbus Operations

Data Validation Report

Project Name: New Bedford Harbor
Collection Date: September 23 and 24, 2014
Report Date: March 18, 2015
Matrix: Sediment
Parameters: PCB Congeners
Validation Level: Tier I+
Laboratory: Battelle
Sample Delivery Group (SDG): 14-0497

Sample Identification:

NBH14-0073
NBH14-0081
NBH14-0085
NBH14-0105

Introduction

This data review covers 4 sediment samples listed on the cover sheet. The analyses of PCB Congeners (18 congeners) were performed according to Battelle SOP 5-128 (GC/ECD).

There was no Duplicate Pair in this dataset.

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

New Bedford Harbor PCB Congeners (Total) - Data Qualification Summary - SDG 14-0497

No Sample Data Qualified in this SDG

Laboratory: Battelle Norwell

Laboratory Batch: 14-0497

Analysis: PCBs by GC/ECD

Reviewer: B. Cutie

Review Date: 3/12/15

Matrix: Sediment

Collection Date: 9/23-9/24/14

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Ice, 4°C ± 2°C Extract within 14 days (cold) and 1 year (frozen) Analyze within 40 days	Yes/Frozen
Method Blank	Target Analytes < 5x ssMDL	Yes
Laboratory Control Sample/Laboratory Control Sample Duplicate	1 per batch; 70-130 %Recovery	Yes
Matrix Spike/ Matrix Spike Duplicate	70 - 130% Recovery and RPD ≤ 30% for compounds spiked at a concentration > 5x background	Yes
Internal Standards	-50% to +100% of area counts in ICAL	Yes
Field Replicates	RPD ≤ 50%	Not applicable
Surrogate Spike (Organics)	Recovery results between 40% and 120%.	Yes
Standard Reference Material (SRM)	PD ≤ 30% from NIST 95% uncertainty range for compounds with certified concentrations >5x ssMDL	SRM was not included in the dataset. SRM was included in the Work Order on 2/20/15.
Initial Calibration	ICAL - coefficient of determination > 0.995 (based on a linear curve fit)	Yes
Initial Calibration Verification (ICV)	ICV – runs immediately after ICAL; ICV ≤ 20 %D	Yes
Continuing Calibration Verification (CCV)	CCV - run every 12 hours or every 10 samples; CCV ≤ 20 %D	Yes

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Percent solids	≥ 50% for all; reported as dry-weight basis	Yes

References:

Final Quality Assurance Project Plan for New Bedford harbor Long Term Monitoring VI, New Bedford Harbor Superfund Site, New Bedford, MA, Revision 0, September 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.