

## FINAL TECHNICAL MEMORANDUM

### OPERABLE UNIT #3 PILOT CAP SEDIMENT MONITORING

#### NEW BEDFORD HARBOR SUPERFUND SITE, OU #3

Contract No. W912WJ-09-D-0001-0010-07



**Prepared For:**

United States Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742

**Prepared By:**

Woods Hole Group, Inc.  
81 Technology Park Drive  
East Falmouth, MA 02536

May 2013

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81 Technology Park Drive  
East Falmouth MA 02536  
(508) 540-8080

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**May 8, 2013**

Peter Hugh  
U.S. Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742

**Subject: November 2012 Sediment Sampling Event  
New Bedford Harbor Superfund Site  
Operable Unit #3 (OU3) Pilot Underwater Sediment Cap**

Dear Mr. Hugh,

This FINAL Technical Memorandum presents a summary of the sediment monitoring activities conducted at the Operable Unit #3 (OU3) pilot underwater sediment cap in New Bedford, Massachusetts during the 2012 monitoring period. The 2012 monitoring study is a continuation of a multi-year program developed to sample 17 sediment stations located within, and adjacent to, the sediment cap.

The OU#3 cap sample collection effort was performed as part of the 2012 Environmental Monitoring, Sampling, and Analysis of the New Bedford Superfund Site Task Order (TO-0010-07).

### **Introduction**

The pilot underwater cap in Operable Unit #3 (OU#3) is located south of the hurricane barrier along the western shoreline of New Bedford's outer harbor (Figure 1). Construction of the 19-acre cap was completed in 2005, using clean sand and gravel from a Port of New Bedford navigational Confined Aquatic Disposal (CAD) cell, and is adjacent to a proposed winter flounder mitigation area. The pilot cap covers polychlorinated biphenyl (PCB)-contaminated sediments just offshore of the Cornell-Dubilier Electronics (CDE) facility.

Post-cap monitoring since 2005 has included bathymetric surveys to determine cap thickness and grab samples to determine PCB concentrations in surface sediment (top 0.1 feet). Monitoring has been done annually since the cap was placed, with exception of 2009 and 2011. Prior to the November 2012 sediment monitoring event, Woods Hole Group (WHG) previously completed a sediment grab survey of the OU#3 cap in 2010. A bathymetric survey of the OU#3 cap was performed by a Jacobs Engineering subcontractor on October 24-25, 2012 at the request of the USACE-NAE. The bathymetric survey was performed as part of the annual monitoring of cap thickness (Woods Hole Group, 2012a).

## **Sediment Grab Sampling**

Sediment sample stations selected for the 2012 monitoring event were chosen based on three objectives: 1) to reoccupy previously sampled sites within the cap; 2) to fill spatial gaps in data coverage; and 3) to collect samples in an area adjacent to the cap designated for winter flounder habitat mitigation. In total, twenty-five (25) stations were considered for sample collection, but at the request of the USACE-NAE these stations were prioritized to keep the number of sample locations at 17, which was the number of samples called for in the scope of work. The eight lowest-priority stations were left as backups, but were not sampled during the November 2012 collection event. All station locations were accepted by the USACE and EPA prior to sampling. Station IDs were labeled in the same manner as previous events (OU02 through OU25). To avoid confusion between sampling years, the suffix “-12” was appended to the station IDs to indicate that the samples were collected during the year 2012.

Due to a strong north wind and ebbing tide, which combined to push the boat to the south/southeast, all of the sampling locations in 2012 were several meters away from their proposed coordinates. WHG field crew maintained good communication with the vessel captain during sampling, who positioned the vessel upstream and drifted back over the proposed coordinates. The WHG field crew stored a sample position in the handheld GPS once the grab sampler made contact with the bottom, but due to boat drift the sampled locations were between 4 and 27 meters away from the proposed coordinates. Stations OU4-12 and OU19-12 were the farthest from their proposed coordinates (26 and 27 meters, respectively), and the field replicate (REP) at station OU7-12 is 23 meters away from its field sample. This was brought to the attention of the USACE Engineering Technical Lead and USEPA Project Manager prior to sample analysis to determine if re-sampling was necessary, but the sampling locations were accepted and the samples were analyzed as planned.

Target sampling coordinates are provided in Massachusetts State Plane Mainland coordinates (units in feet) and latitude and longitude in Table 1. Actual sampling stations are plotted in Figure 1 and listed in Table 2.





**Figure 1. Basemap of the OU#3 Cap and November 2012 sample locations**

**Table 1. Target 2012 sample station coordinates**

Station ID	Easting (ft)	Northing (ft)	Latitude (N)	Longitude (W)
OU02-12	818142.86	2685865.94	41° 36.994	70° 54.459
OU03-12	817893.62	2685844.34	41° 36.991	70° 54.513
OU04-12	818041.9	2686002.33	41° 37.016	70° 54.481
OU06-12	817950.21	2686187.35	41° 37.047	70° 54.501
OU07-12	817784.57	2686015.8	41° 37.019	70° 54.537
OU08-12	817755.47	2686240.48	41° 37.056	70° 54.543
OU09-12	817489.55	2686129.35	41° 37.038	70° 54.602
OU12-12	817501.62	2686489.66	41° 37.097	70° 54.598
OU13-12	817318.16	2686397.34	41° 37.082	70° 54.639
OU16-12	817325.85	2686827.28	41° 37.153	70° 54.636
OU18-12	816889.509	2686916.547	41° 37.168	70° 54.732
OU19-12	817257.564	2686565.852	41° 37.110	70° 54.652
OU21-12	817132.564	2686322.797	41° 37.070	70° 54.680
OU22-12	817344.37	2686201.269	41° 37.050	70° 54.633
OU23-12	817295.759	2685999.88	41° 37.017	70° 54.644
OU24-12	817515.773	2685857.143	41° 36.993	70° 54.596
OU25-12	817400.227	2686553.723	41° 37.108	70° 54.621

**Table 2. Actual OU#3 Cap sample coordinates from November 2012**

Station ID	Easting (ft)	Northing (ft)	Latitude (N)	Longitude (W)
OU02-12	818157.271	2685816.807	41° 36.986	70° 54.456
OU03-12	817911.258	2685802.952	41° 36.984	70° 54.510
OU04-12	818042.619	2685919.257	41° 37.003	70° 54.481
OU06-12	817972.491	2686173.853	41° 37.045	70° 54.496
OU07-12	817759.431	2686008.394	41° 37.018	70° 54.543
OU07-12-REP	817832.518	2685984.608	41° 37.014	70° 54.527
OU08-12	817803.45	2686233.414	41° 37.055	70° 54.533
OU09-12	817485.278	2686109.743	41° 37.035	70° 54.603
OU12-12	817455.078	2686522.527	41° 37.103	70° 54.609
OU13-12	817305.442	2686412.17	41° 37.085	70° 54.642
OU16-12	817334.405	2686837.507	41° 37.155	70° 54.635
OU18-12	816901.221	2686870.958	41° 37.161	70° 54.730
OU19-12	817336.548	2686527.78	41° 37.104	70° 54.635
OU21-12	817110.443	2686271.137	41° 37.062	70° 54.685
OU22-12	817316.193	2686175.382	41° 37.046	70° 54.640
OU23-12	817313.188	2685950.645	41° 37.009	70° 54.641
OU24-12	817546.537	2685818.644	41° 36.987	70° 54.590
OU25-12	817468.706	2686528.692	41° 37.104	70° 54.606



Surface sediments were collected at each station. Sediment was collected using a stainless-steel Van Veen grab sampler. This device consists of a stainless steel jaw set into the center of a weighted frame. The jaws are kept open by tension on the winch cable during the lowering through the water column. Once the device hits the bottom the tension is lost and the jaws close, collecting a sample of the top 0.5 feet of bottom sediment. Each grab sample was inspected to ensure the bottom surface was undisturbed and representative of the sediment-water interface. All sites were composed of varying percentages of sand and silt (silty sand vs. sandy silt) with occasional gravel, small cobbles and shells. Several stations required multiple attempts due to the coarse composition of the bottom material. Marine vegetation (*Ulva lactuca*/sea lettuce) was common in many grab samples, especially from stations that were to the west. No photographs were taken of the sediment, but it was mostly gray or brown in color based on firsthand accounts of the WHG field crew, though some samples contained small black streaks. Photographing the sediment provides valuable information and this action will be included in future sampling events.

Samples were collected using a pre-cleaned stainless steel spoon to scoop the top 0–2 cm (approximately 0.1 ft) of the sediment from the grab sampler. Sediment was spooned directly into the pre-labeled sample containers, stored on ice (4°C) in coolers, and transported to Alpha Analytical Labs (AAL) under chain of custody. Care was taken not to collect any sediment that came in contact with the interior surfaces of the grab sampler.

The grab sampler jaws, stainless steel spoons, and other equipment that came in contact with bottom sediment were decontaminated prior to sampling, as well as in-between stations. Equipment was rinsed in site water several times for gross decontamination, followed by thorough decontamination using a 1% Liquinox solution, scrubbing with a hard-bristled brush, and distilled water rinse. More information regarding decontamination techniques can be found in the Field Sampling Plan (Woods Hole Group, 2012a).

### **Laboratory Analysis**

Sediment samples were submitted to Alpha Analytical Laboratory (AAL), a Massachusetts and USACE certified laboratory, for PCB congener analysis - USEPA Method 8082. Quality control (QC) of samples was performed by collecting separate field replicates (REPs), matrix spike (MS), and matrix spike duplicate (MSD) samples, which were submitted for analysis along with the field samples. The REP was collected from station OU07 and the MS/MSD samples were collected from OU12.

WHG submitted one equipment blank (EB), which was collected by pouring laboratory-quality deionized water (supplied by AAL) through the decontaminated grab sampler and collection equipment (e.g., stainless steel spoons). Analyzing this sample for NOAA-18 PCB congeners verifies if decontamination methods were adequate.

All samples were received at the laboratory intact, properly preserved, and within temperature acceptance criteria. Information and the Chain of Custody documents are

also located at the end of the lab report provided in Appendix A as well as electronic attachments on the accompanying CD.

## **Results**

This monitoring effort analyzed and reported the sum of NOAA-18 congeners, which are presented in Table 3. The sum of congeners in each of the 2012 samples is all less than 4 mg/kg: samples within the pilot cap range from 0.04 to 3.11 mg/kg with an average of 0.56 mg/kg (excludes three stations located outside the cap area). Samples from stations within the proposed flounder mitigation area (OU18, OU21, OU23), had concentrations of 2.02, 2.19, and 1.49 mg/kg, respectively. Results from 2012 are much lower than those in pre-cap samples, which had an average PCB concentration of approximately 32 ppm in the top foot of sediment (Dickerson, 2007). Caution should be used when comparing historical PCB concentrations to 2012 results from the same station due to difficulties reoccupying previous sample locations. Also, sample matrix heterogeneity can influence PCB congener concentrations greatly, even for samples that are located just feet apart.

Areas A and B (Figure 1) are locations on the pilot cap that are less thick than average. There were three samples within Area A; sum of NOAA-18 congeners was 0.07 mg/kg for station OU25, 0.20 mg/kg for station OU12, and 0.81 mg/kg for station OU19. From Area B, the sum of NOAA-18 congeners from station OU09 was 0.1 mg/kg. Although these stations were not located in the exact location as historical stations, these concentrations were similar to historical results from Areas A and B acquired from the New Bedford Harbor Database (Table 4). In Table 4, results from Area A are indicated with “(A)”, results from Area B are indicated with “(B)”, and results shaded gray were from the proposed winter flounder mitigation area outside the pilot cap area (Figure 1).

Results from the equipment blank (EB-111512-01) were all non-detects, indicating that decontamination procedures were successful.

**Table 3. Sum of NOAA-18 Congeners of 2012 OU3 Samples.**

<b>Station ID</b>	<b>Sample ID</b>	<b>Sum of NOAA-18 Congeners (mg/kg)</b>
OU02	S-12N-G006-0.0-0.1	0.13
OU03	S-12N-G005-0.0-0.1	0.04
OU04	S-12N-G007-0.0-0.1	0.50
OU06	S-12N-G008-0.0-0.1	0.12
OU07	S-12N-G009-0.0-0.1	0.09 J*
OU07-REP	S-12N-G009-0.0-0.1-REP	0.17 J*
OU08	S-12N-G010-0.0-0.1	0.07
OU09	S-12N-G011-0.0-0.1	0.10
OU12	S-12N-G014-0.0-0.1	0.20
OU13	S-12N-G013-0.0-0.1	1.02
OU16	S-12N-G017-0.0-0.1	3.11
OU18	S-12N-G001-0.0-0.1	2.02
OU19	S-12N-G016-0.0-0.1	0.81
OU21	S-12N-G003-0.0-0.1	2.19
OU22	S-12N-G012-0.0-0.1	0.63
OU23	S-12N-G002-0.0-0.1	1.49
OU24	S-12N-G004-0.0-0.1	1.31
OU25	S-12N-G015-0.0-0.1	0.07
Equipment Blank	EB-111512-01	0.00

\* result is estimated due to FD imprecision.

**Table 4. Historical and Recent PCB Concentrations from OU3 Cap Area.**

Station	<u>Sum of NOAA-18 Congeners (mg/kg)</u>					
	Aug. 2005	Sept. 2006	Sept. 2007	Oct. 2008	Nov. 2010	Nov. 2012 †
OU1	0.46	0.42	0.15	0.42	0.30	-
OU2	0.42	0.18	0.26	1.35	0.85	0.13
OU3	0.58	0.16	0.22	0.09	0.58	0.04
OU4	0.21	0.62	0.85	0.62	0.54	0.50
OU5	0.73	0.62	0.30	0.11	0.15	-
OU6	1.23	0.38 / 0.37 *	0.50	0.50	0.58	0.12
OU7	1.46	0.88	0.65	0.38	0.23	0.09J / 0.17J *
OU8	1.27 / 1.77 *	0.31	0.42	0.19	0.28	0.07
OU9	0.81 (B)	0.50 (B)	0.69 (B)	0.32 (B)	0.32 (B)	0.10 (B)
OU10	0.62	0.62	1.19	0.21	0.27	-
OU11	0.14	1.54	0.12	0.10	0.10	-
OU12	2.62	1.77	1.08 (A)	0.28	0.17	0.20 (A)
OU13	3.38	6.54	0.88 / 0.5 *	2.31	0.36	1.02
OU14	3.73	1.65	0.69	0.35	0.28	-
OU15	1.35	1.73	1.19	0.85	0.54	-
OU16	1.23	0.88	1.54	0.85 / 0.69 *	0.58	3.11
OU17	0.17	0.02	0.09	0.22	0.09	-
OU18	Not sampled					2.02
OU19						0.81 (A)
OU21						2.19
OU22						0.63
OU23						1.49
OU24						1.31
OU25						0.07 (A)

\* Result is from a field replicate sample.

† Caution should be used when comparing results from 2012 with historical results.

Note: Results from Area A are indicated with “(A)”, results from Area B are indicated with “(B)”, and results shaded gray were from the proposed winter flounder mitigation area outside the pilot cap area.

The full laboratory report is available in Appendix A and on CD with the electronic data attachments.

## Data Validation

Data validation was completed by New Environmental Horizons, Inc. (NEH). Detected and estimated (J) values were used during the summation of the NOAA-18 congeners; a value of zero was used for a non-detect (U) and a non-detect estimate (UJ) (Woods Hole Group, 2012b). The full data validation report is available in Appendix B and on CD with the electronic data attachments.

Laboratory results were submitted to New Environmental Horizons, Inc. for EPA Region I Tier I+ validation of PCB congeners. The intentions of data validation are: 1) to determine if the data were generated and reported in accordance with the *Field Sampling Plan* and *Quality Assurance Project Plan, New Bedford Harbor Superfund Site, Operable Unit (OUI)* (Woods Hole Group, 2012a and 2012b); 2) to determine if the data meet project data quality objectives for acceptable accuracy, precision, sensitivity, and technical usability and; 3) to generate an electronic deliverable of validated results with project-specific data validation qualifiers added.

Based on this Tier I+ validation of 18 NOAA PCB congeners, all results were considered usable for project decisions based on a comparison to the NBH OUI QAPP Addendum 2012 requirements and with the understanding of the potential uncertainty (bias) in the qualified results.

The equipment blank had non-detects for all congeners. The LCS/LCSD recoveries were acceptable for all 18 NOAA congeners, which indicate acceptable laboratory accuracy for the method of analysis in the absence of the site matrix. MS/MSD accuracy was acceptable for all 18 NOAA congeners from sample S-12N-G014-0.0-0.1.

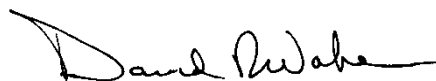
There was one field duplicate (FD) pair reported: S-12N-G009-0.0-0.1 & S-12N-G009-0.0-0.1-REP. FD precision was unacceptable (RPD > 50%) for ten of the 18 NOAA congeners in this FD pair. These ten congener results were estimated (J) in both FD pair samples with indeterminate bias due to FD imprecision. These FD results are an indication of sample heterogeneity that may affect representativeness of the 18 NOAA PCB congeners to the site sediment locations.

Sincerely,

The Woods Hole Group, Inc.



Dack Stuart  
Coastal Scientist



David Walsh  
Senior Project Manager/Coastal Scientist

Attachments: Appendix A Alpha Analytical Laboratory Report  
Appendix B New Environmental Horizons, Inc. Data Validation Report

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## References

- Dickerson, D. 2007. Operable Unit 3 Pilot Underwater Cap: Post-Cap Monitoring Update. Technical Memorandum to Site File. August 24, 2007. Available at <http://www.epa.gov/region1/superfund/sites/newbedford/272425.pdf>. Accessed January 2, 2013.
- Woods Hole Group. 2012a. Operable Unit #3 Cap Monitoring Field Sampling Plan. New Bedford Harbor Superfund Site, New Bedford, MA. Prepared under Contract W912WJ-09-D-0001 Task Order No 0010 for the U.S. Army Corps of Engineers New England District, Concord, MA.
- Woods Hole Group. 2012b. Environmental Monitoring, Sampling and Analysis Quality Assurance Project Plan Addendum. New Bedford Harbor Superfund Site, New Bedford, Massachusetts. Prepared under Contract W912WJ-09-D-0001 Task Order No 0010 for the U.S. Army Corps of Engineers New England District, Concord, MA.



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## **APPENDIX A. ALPHA ANALYTICAL LABORATORY REPORT**

(See Electronic Attachment)

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## INTRODUCTION

Samples were analyzed at Alpha Analytical Laboratories. Upon receipt, samples were divided into sample delivery groups (SDGs), which were assigned a unique 7-digit number preceded by the letter L. One SDG typically describes 20 samples and consists of three data files. The table below describes the contents of each SDG file from the OU3 cap sampling.

<b>File name</b>	<b>File type</b>	<b>Description</b>
L1221058_coc	.PDF	Scanned copy of the chain of custody.
L1221058_nbh	.CSV	Comma-delimited spreadsheet of analytical data, formatted for the New Bedford Harbor Database.
L1221058_pdf	.PDF	SDG laboratory report.

This Appendix document includes the SDG laboratory report only. All other data files associated with this SDG are included as electronic attachments on the accompanying CD.



## ANALYTICAL REPORT

Lab Number:	L1221058
Client:	Woods Hole Group 81 Technology Park Drive East Falmouth, MA 02536
ATTN:	Dack Stuart
Phone:	(508) 540-8080
Project Name:	NEW BEDFORD OU3 CAP
Project Number:	TO-0010-07
Report Date:	12/11/12

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.

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1221058-01	S-12N-G001-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:01
L1221058-02	S-12N-G002-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:15
L1221058-03	S-12N-G003-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:22
L1221058-04	S-12N-G004-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:30
L1221058-05	S-12N-G005-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:35
L1221058-06	S-12N-G006-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:48
L1221058-07	S-12N-G007-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:00
L1221058-08	S-12N-G008-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:11
L1221058-09	S-12N-G009-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:20
L1221058-10	S-12N-G009-0.0-0.1-REP	NEW BEDFORD, MA	11/15/12 09:20
L1221058-11	S-12N-G010-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:42
L1221058-12	S-12N-G011-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:52
L1221058-13	S-12N-G012-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:04
L1221058-14	S-12N-G013-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:15
L1221058-15	S-12N-G014-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:30
L1221058-16	S-12N-G015-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:45
L1221058-17	S-12N-G016-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:58
L1221058-18	S-12N-G017-0.0-0.1	NEW BEDFORD, MA	11/15/12 11:12
L1221058-19	EB-111512-01	NEW BEDFORD, MA	11/15/12 11:35

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### 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. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for 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 free of charge for 30 days from the date the project is completed. After 30 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.

Please contact Client Services at 800-624-9220 with any questions.



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### Case Narrative (continued)

#### Sample Receipt

Sediment samples were received intact on November 16, 2012. The samples were placed in frozen storage immediately upon receipt. The samples were removed November 27, 2012 and analyzed for initial percent solids air-dried and then replaced in frozen storage on November 29, 2012. Samples were again removed from frozen storage on December 5, 2012 when they were removed to extract samples for PCB Congener analysis and analyze for air-dried percent solids.

#### PCB Congeners by GC/ECD

The PCB Congener analysis was performed utilizing dual column confirmation with the higher of the two values reported. Technical judgment was employed in the case of an observed interference. In each case that interference was observed on one column, the value from the opposite column was reported regardless of whether it was the higher or lower value.

The WG575133-2/-3 LCS/LCSD recoveries, associated with L1221058-19, are below the individual acceptance criteria for Cl2-BZ#8(26%)/(28%) due to obvious interference.

Samples L1221058-01, 02, 03, 04, 07, 13, 14, 15, and 17 have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in 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:  Cynthia McQueen

Title: Technical Director/Representative

Date: 12/11/12

# ORGANICS

# PCBS

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-01 D  
 Client ID: S-12N-G001-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 07:43  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:01  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	300		ug/kg	132	--	100
CI3-BZ#18	360		ug/kg	132	--	100
CI4-BZ#52	329		ug/kg	132	--	100
CI4-BZ#66	247		ug/kg	132	--	100
CI5-BZ#118	172		ug/kg	132	--	100
CI5-BZ#105	ND		ug/kg	132	--	100
CI6-BZ#138	ND		ug/kg	132	--	100
CI7-BZ#187	ND		ug/kg	132	--	100
CI6-BZ#128	ND		ug/kg	132	--	100
CI7-BZ#180	ND		ug/kg	132	--	100
CI7-BZ#170	ND		ug/kg	132	--	100
CI8-BZ#195	ND		ug/kg	132	--	100
CI9-BZ#206	ND		ug/kg	132	--	100
CI10-BZ#209	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-01 D  
 Client ID: S-12N-G001-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 07:43  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:01  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	460		ug/kg	132	--	100
CI4-BZ#44	152		ug/kg	132	--	100
CI5-BZ#101	ND		ug/kg	132	--	100
CI6-BZ#153	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-02 D  
 Client ID: S-12N-G002-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 08:27  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#18	282		ug/kg	130	--	100
CI4-BZ#52	249		ug/kg	130	--	100
CI4-BZ#66	184		ug/kg	130	--	100
CI5-BZ#118	137		ug/kg	130	--	100
CI5-BZ#105	ND		ug/kg	130	--	100
CI6-BZ#138	ND		ug/kg	130	--	100
CI7-BZ#187	ND		ug/kg	130	--	100
CI6-BZ#128	ND		ug/kg	130	--	100
CI7-BZ#180	ND		ug/kg	130	--	100
CI7-BZ#170	ND		ug/kg	130	--	100
CI8-BZ#195	ND		ug/kg	130	--	100
CI9-BZ#206	ND		ug/kg	130	--	100
CI10-BZ#209	ND		ug/kg	130	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	81		30-150
BZ 198	74		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-02 D  
**Client ID:** S-12N-G002-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 08:27  
**Analyst:** JW  
**Percent Solids:** 99%

**Date Collected:** 11/15/12 08:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI2-BZ#8	320		ug/kg	130	--	100
CI3-BZ#28	319		ug/kg	130	--	100
CI4-BZ#44	ND		ug/kg	130	--	100
CI5-BZ#101	ND		ug/kg	130	--	100
CI6-BZ#153	ND		ug/kg	130	--	100

DBOB	81	30-150
BZ 198	74	30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-03 D  
 Client ID: S-12N-G003-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:10  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:22  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	382		ug/kg	132	--	100
CI3-BZ#18	275		ug/kg	132	--	100
CI4-BZ#52	333		ug/kg	132	--	100
CI4-BZ#66	272		ug/kg	132	--	100
CI5-BZ#118	191		ug/kg	132	--	100
CI6-BZ#138	ND		ug/kg	132	--	100
CI7-BZ#187	ND		ug/kg	132	--	100
CI6-BZ#128	ND		ug/kg	132	--	100
CI7-BZ#180	ND		ug/kg	132	--	100
CI7-BZ#170	ND		ug/kg	132	--	100
CI8-BZ#195	ND		ug/kg	132	--	100
CI9-BZ#206	ND		ug/kg	132	--	100
CI10-BZ#209	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-03 D  
 Client ID: S-12N-G003-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:10  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:22  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	442		ug/kg	132	--	100
CI4-BZ#44	146		ug/kg	132	--	100
CI5-BZ#101	148		ug/kg	132	--	100
CI6-BZ#153	ND		ug/kg	132	--	100
CI5-BZ#105	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-04 D  
 Client ID: S-12N-G004-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:54  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	295		ug/kg	131	--	100
CI3-BZ#18	232		ug/kg	131	--	100
CI4-BZ#52	288		ug/kg	131	--	100
CI4-BZ#66	191		ug/kg	131	--	100
CI5-BZ#118	ND		ug/kg	131	--	100
CI5-BZ#105	ND		ug/kg	131	--	100
CI6-BZ#138	ND		ug/kg	131	--	100
CI7-BZ#187	ND		ug/kg	131	--	100
CI6-BZ#128	ND		ug/kg	131	--	100
CI7-BZ#180	ND		ug/kg	131	--	100
CI7-BZ#170	ND		ug/kg	131	--	100
CI8-BZ#195	ND		ug/kg	131	--	100
CI9-BZ#206	ND		ug/kg	131	--	100
CI10-BZ#209	ND		ug/kg	131	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	83		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-04 D  
 Client ID: S-12N-G004-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:54  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	303		ug/kg	131	--	100
CI4-BZ#44	ND		ug/kg	131	--	100
CI5-BZ#101	ND		ug/kg	131	--	100
CI6-BZ#153	ND		ug/kg	131	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	83		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-05  
 Client ID: S-12N-G005-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 17:55  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:35  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	3.69		ug/kg	1.32	--	1
CI3-BZ#18	3.91		ug/kg	1.32	--	1
CI4-BZ#52	5.95		ug/kg	1.32	--	1
CI4-BZ#66	5.57		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

DBOB 73 30-150  
 BZ 198 81 30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-05  
**Client ID:** S-12N-G005-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 17:55  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 08:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	6.70		ug/kg	1.32	--	1
CI4-BZ#44	2.24		ug/kg	1.32	--	1
CI5-BZ#101	3.88		ug/kg	1.32	--	1
CI5-BZ#118	5.31		ug/kg	1.32	--	1
CI6-BZ#153	3.00		ug/kg	1.32	--	1
CI5-BZ#105	1.62		ug/kg	1.32	--	1
CI6-BZ#138	2.94		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI6-BZ#128	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	73		30-150
BZ 198	81		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-06  
 Client ID: S-12N-G006-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 18:39  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:48  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	9.02		ug/kg	1.32	--	1
CI3-BZ#18	6.58		ug/kg	1.32	--	1
CI4-BZ#52	15.6		ug/kg	1.32	--	1
CI4-BZ#44	6.33		ug/kg	1.32	--	1
CI4-BZ#66	17.0		ug/kg	1.32	--	1
CI5-BZ#118	17.9		ug/kg	1.32	--	1
CI6-BZ#138	12.8		ug/kg	1.32	--	1
CI6-BZ#128	3.07		ug/kg	1.32	--	1
CI7-BZ#180	1.94		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	75		30-150
BZ 198	76		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-06  
 Client ID: S-12N-G006-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 18:39  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:48  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	16.6		ug/kg	1.32	--	1
CI5-BZ#101	10.2		ug/kg	1.32	--	1
CI6-BZ#153	8.54		ug/kg	1.32	--	1
CI5-BZ#105	5.28		ug/kg	1.32	--	1
CI7-BZ#187	1.53		ug/kg	1.32	--	1

DBOB	75	30-150
BZ 198	76	30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-07 D  
 Client ID: S-12N-G007-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 15:22  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 09:00  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	30.9		ug/kg	6.58	--	5
CI3-BZ#18	24.8		ug/kg	6.58	--	5
CI4-BZ#52	68.8		ug/kg	6.58	--	5
CI4-BZ#44	25.5		ug/kg	6.58	--	5
CI4-BZ#66	67.0		ug/kg	6.58	--	5
CI5-BZ#118	71.0		ug/kg	6.58	--	5
CI6-BZ#128	12.1		ug/kg	6.58	--	5
CI7-BZ#180	7.05		ug/kg	6.58	--	5
CI7-BZ#170	ND		ug/kg	6.58	--	5
CI8-BZ#195	ND		ug/kg	6.58	--	5
CI9-BZ#206	ND		ug/kg	6.58	--	5
CI10-BZ#209	ND		ug/kg	6.58	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-07 D  
 Client ID: S-12N-G007-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 15:22  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 09:00  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	61.0		ug/kg	6.58	--	5
CI5-BZ#101	41.6		ug/kg	6.58	--	5
CI6-BZ#153	35.7		ug/kg	6.58	--	5
CI5-BZ#105	20.0		ug/kg	6.58	--	5
CI6-BZ#138	31.8		ug/kg	6.58	--	5
CI7-BZ#187	6.89		ug/kg	6.58	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-08  
**Client ID:** S-12N-G008-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 20:06  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:11  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	8.30		ug/kg	1.32	--	1
CI3-BZ#18	7.04		ug/kg	1.32	--	1
CI4-BZ#52	14.6		ug/kg	1.32	--	1
CI4-BZ#44	6.00		ug/kg	1.32	--	1
CI4-BZ#66	14.4		ug/kg	1.32	--	1
CI5-BZ#118	15.1		ug/kg	1.32	--	1
CI6-BZ#138	10.2		ug/kg	1.32	--	1
CI6-BZ#128	2.55		ug/kg	1.32	--	1
CI7-BZ#180	1.50		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	1.59		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-08  
**Client ID:** S-12N-G008-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 20:06  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:11  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	15.1		ug/kg	1.32	--	1
CI5-BZ#101	9.17		ug/kg	1.32	--	1
CI6-BZ#153	7.42		ug/kg	1.32	--	1
CI5-BZ#105	4.45		ug/kg	1.32	--	1
CI7-BZ#187	1.38		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-09  
 Client ID: S-12N-G009-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:50  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	6.88		ug/kg	1.32	--	1
CI3-BZ#18	6.46		ug/kg	1.32	--	1
CI4-BZ#52	10.6		ug/kg	1.32	--	1
CI4-BZ#44	4.14		ug/kg	1.32	--	1
CI4-BZ#66	10.4		ug/kg	1.32	--	1
CI5-BZ#118	10.6		ug/kg	1.32	--	1
CI6-BZ#138	7.30		ug/kg	1.32	--	1
CI6-BZ#128	1.87		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-09  
**Client ID:** S-12N-G009-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 20:50  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	12.7		ug/kg	1.32	--	1
CI5-BZ#101	7.05		ug/kg	1.32	--	1
CI6-BZ#153	5.69		ug/kg	1.32	--	1
CI5-BZ#105	3.45		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-10  
 Client ID: S-12N-G009-0.0-0.1-REP  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 21:34  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	13.2		ug/kg	1.31	--	1
CI3-BZ#18	11.3		ug/kg	1.31	--	1
CI4-BZ#52	21.6		ug/kg	1.31	--	1
CI4-BZ#44	8.39		ug/kg	1.31	--	1
CI4-BZ#66	21.1		ug/kg	1.31	--	1
CI5-BZ#118	20.7		ug/kg	1.31	--	1
CI6-BZ#138	14.3		ug/kg	1.31	--	1
CI6-BZ#128	3.69		ug/kg	1.31	--	1
CI7-BZ#180	1.97		ug/kg	1.31	--	1
CI7-BZ#170	1.56		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	79		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-10  
 Client ID: S-12N-G009-0.0-0.1-REP  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 21:34  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	19.9		ug/kg	1.31	--	1
CI5-BZ#101	11.9		ug/kg	1.31	--	1
CI6-BZ#153	9.38		ug/kg	1.31	--	1
CI5-BZ#105	6.03		ug/kg	1.31	--	1
CI7-BZ#187	2.08		ug/kg	1.31	--	1

DBOB	79	30-150
BZ 198	79	30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-11  
**Client ID:** S-12N-G010-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 23:01  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:42  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	6.66		ug/kg	1.31	--	1
CI3-BZ#18	5.98		ug/kg	1.31	--	1
CI4-BZ#52	8.42		ug/kg	1.31	--	1
CI4-BZ#44	3.13		ug/kg	1.31	--	1
CI4-BZ#66	7.66		ug/kg	1.31	--	1
CI5-BZ#118	7.88		ug/kg	1.31	--	1
CI6-BZ#138	5.09		ug/kg	1.31	--	1
CI6-BZ#128	1.31		ug/kg	1.31	--	1
CI7-BZ#180	ND		ug/kg	1.31	--	1
CI7-BZ#170	ND		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-11  
**Client ID:** S-12N-G010-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 23:01  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:42  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	9.72		ug/kg	1.31	--	1
CI5-BZ#101	5.23		ug/kg	1.31	--	1
CI6-BZ#153	4.10		ug/kg	1.31	--	1
CI5-BZ#105	2.62		ug/kg	1.31	--	1
CI7-BZ#187	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-12  
 Client ID: S-12N-G011-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 23:45  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:52  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	10.9		ug/kg	1.31	--	1
CI3-BZ#18	10.8		ug/kg	1.31	--	1
CI4-BZ#52	13.2		ug/kg	1.31	--	1
CI4-BZ#44	4.74		ug/kg	1.31	--	1
CI4-BZ#66	11.3		ug/kg	1.31	--	1
CI5-BZ#118	11.5		ug/kg	1.31	--	1
CI6-BZ#138	6.98		ug/kg	1.31	--	1
CI6-BZ#128	1.87		ug/kg	1.31	--	1
CI7-BZ#180	ND		ug/kg	1.31	--	1
CI7-BZ#170	ND		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-12  
**Client ID:** S-12N-G011-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 23:45  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:52  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	15.5		ug/kg	1.31	--	1
CI5-BZ#101	7.07		ug/kg	1.31	--	1
CI6-BZ#153	5.24		ug/kg	1.31	--	1
CI5-BZ#105	3.50		ug/kg	1.31	--	1
CI7-BZ#187	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-13 D  
 Client ID: S-12N-G012-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:05  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:04  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	94.5		ug/kg	6.67	--	5
CI3-BZ#18	63.1		ug/kg	6.67	--	5
CI4-BZ#52	93.6		ug/kg	6.67	--	5
CI4-BZ#44	32.3		ug/kg	6.67	--	5
CI4-BZ#66	71.5		ug/kg	6.67	--	5
CI5-BZ#118	52.3		ug/kg	6.67	--	5
CI6-BZ#138	31.6		ug/kg	6.67	--	5
CI6-BZ#128	8.33		ug/kg	6.67	--	5
CI7-BZ#170	ND		ug/kg	6.67	--	5
CI8-BZ#195	ND		ug/kg	6.67	--	5
CI9-BZ#206	ND		ug/kg	6.67	--	5
CI10-BZ#209	ND		ug/kg	6.67	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		30-150
BZ 198	71		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-13 D  
 Client ID: S-12N-G012-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:05  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:04  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	110		ug/kg	6.67	--	5
CI5-BZ#101	33.4		ug/kg	6.67	--	5
CI6-BZ#153	23.3		ug/kg	6.67	--	5
CI5-BZ#105	16.5		ug/kg	6.67	--	5
CI7-BZ#187	ND		ug/kg	6.67	--	5
CI7-BZ#180	ND		ug/kg	6.67	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		30-150
BZ 198	71		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-14 D  
 Client ID: S-12N-G013-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:49  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	162		ug/kg	13.3	--	10
CI3-BZ#18	125		ug/kg	13.3	--	10
CI4-BZ#52	118		ug/kg	13.3	--	10
CI4-BZ#66	111		ug/kg	13.3	--	10
CI5-BZ#118	91.5		ug/kg	13.3	--	10
CI6-BZ#138	47.6		ug/kg	13.3	--	10
CI7-BZ#187	ND		ug/kg	13.3	--	10
CI6-BZ#128	ND		ug/kg	13.3	--	10
CI7-BZ#180	ND		ug/kg	13.3	--	10
CI7-BZ#170	ND		ug/kg	13.3	--	10
CI8-BZ#195	ND		ug/kg	13.3	--	10
CI9-BZ#206	ND		ug/kg	13.3	--	10
CI10-BZ#209	ND		ug/kg	13.3	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-14 D  
**Client ID:** S-12N-G013-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/10/12 16:49  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 10:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	204		ug/kg	13.3	--	10
CI4-BZ#44	45.3		ug/kg	13.3	--	10
CI5-BZ#101	56.9		ug/kg	13.3	--	10
CI6-BZ#153	35.6		ug/kg	13.3	--	10
CI5-BZ#105	27.6		ug/kg	13.3	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-15 D  
 Client ID: S-12N-G014-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 17:33  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	20.7		ug/kg	2.65	--	2
CI3-BZ#18	18.0		ug/kg	2.65	--	2
CI4-BZ#52	24.2		ug/kg	2.65	--	2
CI4-BZ#44	9.99		ug/kg	2.65	--	2
CI4-BZ#66	24.2		ug/kg	2.65	--	2
CI5-BZ#118	22.6		ug/kg	2.65	--	2
CI6-BZ#138	14.4		ug/kg	2.65	--	2
CI6-BZ#128	3.75		ug/kg	2.65	--	2
CI7-BZ#180	ND		ug/kg	2.65	--	2
CI7-BZ#170	ND		ug/kg	2.65	--	2
CI8-BZ#195	ND		ug/kg	2.65	--	2
CI9-BZ#206	ND		ug/kg	2.65	--	2
CI10-BZ#209	ND		ug/kg	2.65	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	83		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-15 D  
 Client ID: S-12N-G014-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 17:33  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	31.4		ug/kg	2.65	--	2
CI5-BZ#101	13.8		ug/kg	2.65	--	2
CI6-BZ#153	10.6		ug/kg	2.65	--	2
CI5-BZ#105	6.66		ug/kg	2.65	--	2
CI7-BZ#187	ND		ug/kg	2.65	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	83		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-16  
**Client ID:** S-12N-G015-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/09/12 02:40  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 10:45  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	4.71		ug/kg	1.32	--	1
CI3-BZ#18	5.78		ug/kg	1.32	--	1
CI4-BZ#52	7.85		ug/kg	1.32	--	1
CI4-BZ#44	3.25		ug/kg	1.32	--	1
CI4-BZ#66	8.63		ug/kg	1.32	--	1
CI5-BZ#118	7.65		ug/kg	1.32	--	1
CI6-BZ#138	5.54		ug/kg	1.32	--	1
CI6-BZ#128	1.40		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	86		30-150
BZ 198	85		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-16  
 Client ID: S-12N-G015-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/09/12 02:40  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:45  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	8.68		ug/kg	1.32	--	1
CI5-BZ#101	5.14		ug/kg	1.32	--	1
CI6-BZ#153	4.26		ug/kg	1.32	--	1
CI5-BZ#105	2.49		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
DBOB	86			30-150		
BZ 198	85			30-150		

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-17 D  
 Client ID: S-12N-G016-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 18:17  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:58  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	95.9		ug/kg	6.63	--	5
CI3-BZ#18	88.0		ug/kg	6.63	--	5
CI4-BZ#52	102		ug/kg	6.63	--	5
CI4-BZ#44	37.3		ug/kg	6.63	--	5
CI4-BZ#66	94.9		ug/kg	6.63	--	5
CI5-BZ#118	84.8		ug/kg	6.63	--	5
CI6-BZ#138	48.8		ug/kg	6.63	--	5
CI6-BZ#128	12.8		ug/kg	6.63	--	5
CI7-BZ#180	6.72		ug/kg	6.63	--	5
CI7-BZ#170	ND		ug/kg	6.63	--	5
CI8-BZ#195	ND		ug/kg	6.63	--	5
CI9-BZ#206	ND		ug/kg	6.63	--	5
CI10-BZ#209	ND		ug/kg	6.63	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-17 D  
 Client ID: S-12N-G016-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 18:17  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:58  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	130		ug/kg	6.63	--	5
CI5-BZ#101	49.1		ug/kg	6.63	--	5
CI6-BZ#153	32.8		ug/kg	6.63	--	5
CI5-BZ#105	24.6		ug/kg	6.63	--	5
CI7-BZ#187	6.87		ug/kg	6.63	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-18 D  
 Client ID: S-12N-G017-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 13:33  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 11:12  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	485		ug/kg	133	--	100
CI3-BZ#18	399		ug/kg	133	--	100
CI4-BZ#52	392		ug/kg	133	--	100
CI4-BZ#66	360		ug/kg	133	--	100
CI5-BZ#118	280		ug/kg	133	--	100
CI6-BZ#138	152		ug/kg	133	--	100
CI7-BZ#187	ND		ug/kg	133	--	100
CI6-BZ#128	ND		ug/kg	133	--	100
CI7-BZ#180	ND		ug/kg	133	--	100
CI7-BZ#170	ND		ug/kg	133	--	100
CI8-BZ#195	ND		ug/kg	133	--	100
CI9-BZ#206	ND		ug/kg	133	--	100
CI10-BZ#209	ND		ug/kg	133	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-18 D  
 Client ID: S-12N-G017-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 13:33  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 11:12  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	672		ug/kg	133	--	100
CI4-BZ#44	169		ug/kg	133	--	100
CI5-BZ#101	202		ug/kg	133	--	100
CI6-BZ#153	ND		ug/kg	133	--	100
CI5-BZ#105	ND		ug/kg	133	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	73		30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-19  
 Client ID: EB-111512-01  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/06/12 01:37  
 Analyst: JW

Date Collected: 11/15/12 11:35  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	ND		ug/l	0.00500	--	1
CI3-BZ#18	ND		ug/l	0.00500	--	1
CI3-BZ#28	ND		ug/l	0.00500	--	1
CI4-BZ#52	ND		ug/l	0.00500	--	1
CI4-BZ#44	ND		ug/l	0.00500	--	1
CI4-BZ#66	ND		ug/l	0.00500	--	1
CI5-BZ#101	ND		ug/l	0.00500	--	1
CI5-BZ#118	ND		ug/l	0.00500	--	1
CI5-BZ#105	ND		ug/l	0.00500	--	1
CI6-BZ#138	ND		ug/l	0.00500	--	1
CI7-BZ#187	ND		ug/l	0.00500	--	1
CI6-BZ#128	ND		ug/l	0.00500	--	1
CI7-BZ#180	ND		ug/l	0.00500	--	1
CI7-BZ#170	ND		ug/l	0.00500	--	1
CI8-BZ#195	ND		ug/l	0.00500	--	1
CI9-BZ#206	ND		ug/l	0.00500	--	1
CI10-BZ#209	ND		ug/l	0.00500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	88		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-19  
**Client ID:** EB-111512-01  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/06/12 01:37  
**Analyst:** JW

**Date Collected:** 11/15/12 11:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl6-BZ#153	ND		ug/l	0.00500	--	1
DBOB	88		30-150			
BZ 198	82		30-150			

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8082A  
**Analytical Date:** 12/05/12 11:52  
**Analyst:** JW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 19 Batch: WG575133-1					
Cl2-BZ#8	ND		ug/l	0.00500	--
Cl3-BZ#18	ND		ug/l	0.00500	--
Cl3-BZ#28	ND		ug/l	0.00500	--
Cl4-BZ#52	ND		ug/l	0.00500	--
Cl4-BZ#44	ND		ug/l	0.00500	--
Cl4-BZ#66	ND		ug/l	0.00500	--
Cl5-BZ#101	ND		ug/l	0.00500	--
Cl5-BZ#118	ND		ug/l	0.00500	--
Cl5-BZ#105	ND		ug/l	0.00500	--
Cl6-BZ#138	ND		ug/l	0.00500	--
Cl7-BZ#187	ND		ug/l	0.00500	--
Cl6-BZ#128	ND		ug/l	0.00500	--
Cl7-BZ#180	ND		ug/l	0.00500	--
Cl7-BZ#170	ND		ug/l	0.00500	--
Cl8-BZ#195	ND		ug/l	0.00500	--
Cl9-BZ#206	ND		ug/l	0.00500	--
Cl10-BZ#209	ND		ug/l	0.00500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	92		30-150
BZ 198	87		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 12/05/12 11:52  
 Analyst: JW

Extraction Method: EPA 3510C  
 Extraction Date: 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 19 Batch: WG575133-1					
C16-BZ#153	ND		ug/l	0.00500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	92		30-150
BZ 198	87		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8082A  
**Analytical Date:** 12/07/12 14:57  
**Analyst:** JW

**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-18 Batch: WG577504-1					
Cl2-BZ#8	ND		ug/kg	1.33	--
Cl3-BZ#18	ND		ug/kg	1.33	--
Cl3-BZ#28	ND		ug/kg	1.33	--
Cl4-BZ#52	ND		ug/kg	1.33	--
Cl4-BZ#44	ND		ug/kg	1.33	--
Cl4-BZ#66	ND		ug/kg	1.33	--
Cl5-BZ#101	ND		ug/kg	1.33	--
Cl5-BZ#118	ND		ug/kg	1.33	--
Cl5-BZ#105	ND		ug/kg	1.33	--
Cl6-BZ#138	ND		ug/kg	1.33	--
Cl7-BZ#187	ND		ug/kg	1.33	--
Cl6-BZ#128	ND		ug/kg	1.33	--
Cl7-BZ#180	ND		ug/kg	1.33	--
Cl7-BZ#170	ND		ug/kg	1.33	--
Cl8-BZ#195	ND		ug/kg	1.33	--
Cl9-BZ#206	ND		ug/kg	1.33	--
Cl10-BZ#209	ND		ug/kg	1.33	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	82		30-150
BZ 198	99		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 12/07/12 14:57  
 Analyst: JW

Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-18 Batch: WG577504-1					
C16-BZ#153	ND		ug/kg	1.33	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	82		30-150
BZ 198	99		30-150

## Matrix Spike Analysis

### Batch Quality Control

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 QC Batch ID: WG577504-4 WG577504-5 QC Sample: L1221058-15 Client ID: S-12N-G014-0.0-0.1												
Cl2-BZ#8	20.7	1660	1130	67		1160	70		40-140	3		30
Cl3-BZ#18	18.0	1660	1190	71		1210	73		40-140	2		30
Cl4-BZ#52	24.2	1660	1180	70		1220	73		40-140	3		30
Cl4-BZ#66	24.2	1660	1280	76		1310	79		40-140	2		30
Cl5-BZ#118	22.6	1660	1240	74		1300	78		40-140	5		30
Cl5-BZ#105	ND	1660	1270	76		1320	80		40-140	4		30
Cl6-BZ#138	14.4	1660	1250	75		1290	78		40-140	3		30
Cl6-BZ#128	3.75	1660	1230	74		1270	78		40-140	3		30
Cl7-BZ#180	ND	1660	1280	77		1300	80		40-140	2		30
Cl7-BZ#170	ND	1660	1210	73		1260	77		40-140	4		30
Cl8-BZ#195	ND	1660	1170	71		1210	74		40-140	3		30
Cl9-BZ#206	ND	1660	1300	79		1330	82		40-140	2		30
Cl10-BZ#209	ND	1660	1080	65		1110	68		40-140	3		30
Cl3-BZ#28	31.4	1660	1130	66		1170	70		40-140	3		30
Cl4-BZ#44	ND	1660	1060	64		1080	66		40-140	2		30
Cl5-BZ#101	13.8	1660	1050	63		1080	65		40-140	3		30
Cl6-BZ#153	10.6	1660	994	59		999	61		40-140	1		30
Cl7-BZ#187	ND	1660	1000	60		1020	63		40-140	2		30

### Matrix Spike Analysis Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18    QC Batch ID: WG577504-4    WG577504-5    QC Sample: L1221058-15    Client ID: S-12N-G014-0.0-0.1

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
DBOB	69		73		30-150
BZ 198	79		80		30-150



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								
CI2-BZ#8	26	Q	28	Q	40-140	8		30
CI3-BZ#18	87		103		40-140	17		30
CI3-BZ#28	87		98		40-140	12		30
CI4-BZ#52	86		94		40-140	8		30
CI4-BZ#44	91		97		40-140	7		30
CI4-BZ#66	91		96		40-140	5		30
CI5-BZ#101	92		93		40-140	1		30
CI5-BZ#118	94		95		40-140	1		30
CI5-BZ#105	89		91		40-140	3		30
CI6-BZ#138	86		91		40-140	6		30
CI7-BZ#187	84		83		40-140	2		30
CI6-BZ#128	85		86		40-140	2		30
CI7-BZ#180	83		81		40-140	2		30
CI7-BZ#170	82		80		40-140	2		30
CI8-BZ#195	84		81		40-140	3		30
CI9-BZ#206	78		73		40-140	6		30
CI10-BZ#209	74		69		40-140	8		30

### Lab Control Sample Analysis

#### Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP

**Lab Number:** L1221058

**Project Number:** TO-0010-07

**Report Date:** 12/11/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	83		84		30-150
BZ 198	86		84		30-150

PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								
Cl6-BZ#153	72		78		40-140	7		30

DBOB	83		84		30-150
BZ 198	86		84		30-150

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3								
CI2-BZ#8	80		96		40-140	18		30
CI3-BZ#18	88		101		40-140	14		30
CI3-BZ#28	88		97		40-140	10		30
CI4-BZ#52	94		96		40-140	2		30
CI4-BZ#44	90		96		40-140	6		30
CI4-BZ#66	90		94		40-140	4		30
CI5-BZ#101	91		95		40-140	4		30
CI5-BZ#118	94		96		40-140	2		30
CI5-BZ#105	88		89		40-140	1		30
CI6-BZ#138	92		94		40-140	2		30
CI7-BZ#187	84		88		40-140	5		30
CI6-BZ#128	87		91		40-140	4		30
CI7-BZ#180	86		90		40-140	5		30
CI7-BZ#170	84		86		40-140	2		30
CI8-BZ#195	81		83		40-140	2		30
CI9-BZ#206	92		95		40-140	3		30
CI10-BZ#209	85		86		40-140	1		30

### Lab Control Sample Analysis

#### Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP

**Lab Number:** L1221058

**Project Number:** TO-0010-07

**Report Date:** 12/11/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
-----------	------------------	------	-------------------	------	---------------------	-----	------	------------

PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	77		85		30-150
BZ 198	89		92		30-150

PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3

Cl6-BZ#153	74		76		40-140	3		30
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Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	77		85		30-150
BZ 198	89		92		30-150

# INORGANICS & MISCELLANEOUS

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

## SAMPLE RESULTS

Lab ID: L1221058-01  
 Client ID: S-12N-G001-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment

Date Collected: 11/15/12 08:01  
 Date Received: 11/16/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	65.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-02  
**Client ID:** S-12N-G002-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.2		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-03  
**Client ID:** S-12N-G003-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:22  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB





**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-04  
**Client ID:** S-12N-G004-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:30  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	72.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-05  
**Client ID:** S-12N-G005-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	83.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-06  
**Client ID:** S-12N-G006-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:48  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	75.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-07  
**Client ID:** S-12N-G007-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:00  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.2		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-08  
**Client ID:** S-12N-G008-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:11  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	77.4		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-09  
**Client ID:** S-12N-G009-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	74.0		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-10  
**Client ID:** S-12N-G009-0.0-0.1-REP  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	70.0		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-11  
**Client ID:** S-12N-G010-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:42  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	100		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	80.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB





**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-12  
**Client ID:** S-12N-G011-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:52  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	100		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	76.2		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-13  
**Client ID:** S-12N-G012-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:04  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	72.4		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-14  
**Client ID:** S-12N-G013-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	69.5		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-15  
**Client ID:** S-12N-G014-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:30  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	73.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-16  
**Client ID:** S-12N-G015-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:45  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	74.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-17  
**Client ID:** S-12N-G016-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:58  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.7		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-18  
**Client ID:** S-12N-G017-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 11:12  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.0		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	48.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Lab Duplicate Analysis**  
**Batch Quality Control**

**Project Name:** NEW BEDFORD OU3 CAP

**Project Number:** TO-0010-07

**Lab Number:** L1221058

**Report Date:** 12/11/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-18 QC Batch ID: WG577732-1 QC Sample: L1221058-15 Client ID: S-12N-G014-0.0-0.1						
Solids, Total	99.8	99.8	%	0		10



Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

## 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  
B Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1221058-01A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-02A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-03A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-04A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-05A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-06A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-07A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-08A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-09A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-10A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-11A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-12A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-13A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-14A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-15A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-MS/MSD(),A2-TS-PREDRIED(7)
L1221058-15B	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-MS/MSD(),A2-TS-PREDRIED(7)
L1221058-16A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)

**Project Name:** NEW BEDFORD OU3 CAP**Project Number:** TO-0010-07**Lab Number:** L1221058**Report Date:** 12/11/12**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1221058-17A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-18A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-19A	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-PCBCONG-8082-NOAA(7)
L1221058-19B	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-PCBCONG-8082-NOAA(7)

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

## 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

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 five times (5x) 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.
- 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.
- 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 RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Data Qualifiers**

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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

---



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

## 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.



## Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### Florida Department of Health Certificate/Lab ID: E87814. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

### Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

### New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

### New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Atmospheric Organic Parameters* (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

*Biological Tissue* (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

*Air & Emissions* (EPA TO-15, TO-10A.)

**Pennsylvania** Certificate/Lab ID: 68-02089 **NELAP Accredited**

*Non-Potable Water* (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Virginia Division of Consolidated Laboratory Services** Certificate/Lab ID:460194. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

**U.S. Army Corps of Engineers**

**Department of Defense, L-A-B** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

*Air & Emissions* (EPA TO-15.)

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **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, 2-Methylnaphthalene, 1-Methylnaphthalene.





**MANSFIELD CHAIN OF CUSTODY**

PAGE 1 OF 2

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

**Client Information**

Client: WOODS HOLE GROUP  
Address: 81 Technology Park Dr  
East Falmouth, MA 02536  
Phone: 508-540-8080  
Fax: 508-540-1001  
Email: DSTUART@WHGRP.COM

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Homogenize before analysis

**PLEASE NOTE**

Project-specific EDD

MS/MSD (at unit cost) will be omitted unless you check here:

**Project Information**

Project Name: New Bedford OUS Cap  
Project Location: New Bedford, MA  
Project #: TO-0010-07  
Project Manager: Dave Walsh  
ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab:

**Report Information - Data Deliverables**

FAX  EMAIL  
 ADEX  Add'l Deliverables

ALPHA Job #: L1221058

**Billing Information**

Same as Client info PO #:

**Regulatory Requirements/Report Limits**

State (Fed) Program Criteria

ANALYSIS NOAA-18 PCB Compounds	SAMPLE HANDLING										TOTAL # BOTTLES
	Filtration _____										
	<input type="checkbox"/> Done										
	<input type="checkbox"/> Not needed										
	Preservation										
	<input type="checkbox"/> Lab to do										
	<input type="checkbox"/> Lab to do										
	(Please specify below)										
	Sample Specific Comments										

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials																																															
		Date	Time																																																	
- 1	S-12N-G001-0.0-0.1	11/15/12	0801	SE	DS	X																																														
- 2	S-12N-G002-0.0-0.1		0815			X																																														
- 3	S-12N-G003-0.0-0.1		0822			X																																														
- 4	S-12N-G004-0.0-0.1		0830			X																																														
- 5	S-12N-G005-0.0-0.1		0835			X																																														
- 6	S-12N-G006-0.0-0.1		0848			X																																														
- 7	S-12N-G007-0.0-0.1		0900			X																																														
- 8	S-12N-G008-0.0-0.1		0911			X																																														
- 9	S-12N-G009-0.0-0.1		0920			X																																														
- 10	S-12N-G009-0.0-0.1-REP		0920			X																																														

Container Type A  
Preservative A

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. Delivery Order 0010-07 May 2013

Relinquished By: <u>Dad Stuart</u>	Date/Time: <u>11/14/12 0515</u>	Received By: <u>MCMA</u>	Date/Time: <u>11/14/12 0515</u>
<u>MCMA</u>	<u>11/16/12 1013</u>	<u>[Signature]</u>	<u>11/16/12 1013</u>



# MANSFIELD CHAIN OF CUSTODY

PAGE 2 OF 2

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

### Client Information

Client: WOODS Hole Group  
Address: 81 Technology Park Dr  
East Falmouth, MA 02536  
Phone: 508-540-8080  
Fax: 508-540-1001  
Email: DSTUART@WHGRP.COM

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Homogenize before analysis

**PLEASE NOTE** Project-specific EDD  
MS/MSD (at unit cost) will be omitted unless you check here:

### Project Information

Project Name: New Bedford OU3 Cap  
Project Location: New Bedford, MA  
Project #: TO-φφ1φ-φ7  
Project Manager: Dave Walsh  
ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab:

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

ALPHA Job #: L1221058

### Billing Information

Same as Client info PO #:

### Regulatory Requirements/Report Limits

State Fed Program Criteria

ANALYSIS NOAA-18 PCB Compens											TOTAL # BOTTLES
											TOTAL # BOTTLES
<p><b>SAMPLE HANDLING</b></p> <p>Filtration _____</p> <p><input type="checkbox"/> Done</p> <p><input type="checkbox"/> Not needed</p> <p><input type="checkbox"/> Lab to do Preservation</p> <p><input type="checkbox"/> Lab to do</p> <p><small>(Please specify below)</small></p> <p>Sample Specific Comments</p>											

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS										Sample Specific Comments	TOTAL # BOTTLES					
		Date	Time																			
- 11	S-12N-Gφ1φ-φ.φ-φ.1	11/15/12	0942	SE	DS	X													OUφ8-12	1		
- 12	S-12N-Gφ11-φ.φ-φ.1		0952			X													OUφ9-12	1		
- 13	S-12N-Gφ12-φ.φ-φ.1		1004			X															OU22-12	1
- 14	S-12N-Gφ13-φ.φ-φ.1		1015			X															OU13-12	1
- 15	S-12N-Gφ14-φ.φ-φ.1		1030			X															OU12-12	1
	S-12N-Gφ14-φφ-φ.1-MSMSD		1030			X															OU12-12 MSMSD <del>OU12-MSMSD</del>	1
- 16	S-12N-Gφ15-φ.φ-φ.1		1045			X															OU25-12	1
- 17	S-12N-Gφ16-φ.φ-φ.1		1058			X															OU19-12	1
- 18	S-12N-Gφ17-φ.φ-φ.1		1112			X															OU16-12	1
- 19	EB-111512-G1		1135				SW	DS	X												Equipment Blank	2

Container Type X  
Preservative A

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. Delivery Order 0010-07 May 2013

Relinquished By: <u>Dave Walsh</u>	Date/Time <u>11/16/12 0915</u>	Received By: <u>[Signature]</u>	Date/Time <u>11/16/12 1013</u>
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**APPENDIX B. NEW ENVIRONMENTAL HORIZONS, INC. DATA  
VALIDATION REPORT**

(See Electronic Attachment)

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## INTRODUCTION

Data were validated by New Environmental Horizons. A data validation (DV) report was produced for each sample delivery group (SDG). Alpha Analytical Laboratories divided samples into SDGs upon receipt, which were assigned a unique 7-digit number preceded by the letter L. The OU3 cap sampling DV report is made up of three data files. The table below describes the contents of each DV data file.

<b>File name</b>	<b>File type</b>	<b>Description</b>
dbval_L1221058dv	.CSV	Comma-delimited database file of validated sample results
NBH_OU3_CapCores_DVReport_L1221058	.PDF	Data validation report letter summarizing actions taken
18NOAACongeners_CAP Sediments_Tier1+Checklist_L1221058	.PDF	Data review checklist for NOAA-18 PCB Congener analyses

This Appendix document includes the DV validation report letter only. All other data files are included as electronic attachments on the accompanying CD.



**Data Validation Report**  
**EPA Region I Tier I+**  
**NOAA Congeners by 8082**

**Client/Company:** Woods Hole Group, Inc. (WHG)

**Site/Project Name:** New Bedford Harbor Superfund Site – OU1

**Laboratory:** Alpha Analytical – Mansfield, MA

**Lab Project Number(s):** L1221058

**Date(s) of Collection:** November 15, 2012

**Number / Type  
Samples & Analyses** 18 Cap sediment core samples + 1 Equipment Blank for 18 NOAA  
Congeners by EPA SW-846 Method 8082

**Senior Data Reviewers:** Nancy C. Rothman, PhD, New Environmental Horizons, Inc.  
Susan D. Chapnick, New Environmental Horizons, Inc.

**Date Completed:** January 29, 2013

This EPA Region I Tier I+ validation for PCB Congeners and was performed with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Environmental Monitoring, Sampling, and Analysis Quality Assurance Project Plan Addendum, New Bedford Harbor Superfund Site, Operable Unit 1 (OU1), New Bedford, MA, Rev. 5.0*, prepared by Woods Hole Group, Inc., August 2012 (NBH OU1 QAPP Addendum 2012); Region I, *EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses*, December 1996, including *Part III – Pesticide/PCB Data Validation Functional Guidelines*, Draft February 2004; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to generate an electronic deliverable of validated results with project-specific data validation qualifiers added.

The Data Validation Report consists of three parts:

- This Data Validation Report letter summarizing the actions taken;
- The database file of validated sample results with validation qualifiers, bias, and comments added based on actions taken; and
- The Data Review Checklist completed during this validation to document the Tier I+ review. The Checklist is an integral part of the DV Report as it contains comprehensive details of all quality control (QC) reviewed, the acceptance criteria used, and the professional judgment and actions taken.

## I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification analytical parameters reviewed and the quality control (QC) results (as applicable) of Matrix Spike (MS), Matrix Spike Duplicate (MSD), Matrix Duplicate (MD), Field Duplicate (FD), Field Equipment Blank (EB), and Trip Blank (TB), are listed below in Table 1.

Table 1. Sample Descriptions and Analytical Parameters Validated

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
S-12N-G001-0.0-0.1	L1221058-01	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G002-0.0-0.1	L1221058-02	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G003-0.0-0.1	L1221058-03	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G004-0.0-0.1	L1221058-04	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G005-0.0-0.1	L1221058-05	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G006-0.0-0.1	L1221058-06	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G007-0.0-0.1	L1221058-07	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G008-0.0-0.1	L1221058-08	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G009-0.0-0.1	L1221058-09	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G009-0.0-0.1-REP	L1221058-10	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Duplicate of S-12N-G009-0.0-0.1
S-12N-G010-0.0-0.1	L1221058-11	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample



Table 1. Sample Descriptions and Analytical Parameters Validated - *continued*

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
S-12N-G011-0.0-0.1	L1221058-12	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G012-0.0-0.1	L1221058-13	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G013-0.0-0.1	L1221058-14	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G014-0.0-0.1	L1221058-15	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample [used for MS/MSD]
S-12N-G015-0.0-0.1	L1221058-16	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G016-0.0-0.1	L1221058-17	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G017-0.0-0.1	L1221058-18	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
EB-111512-01	L1221058-19	11/15/12	Water	18 NOAA Congeners	Equipment Blank

Note: EB results were reviewed for potential blank actions; however, full data review of this field QC sample was not performed as these results are not directly used for project decisions.

Analytical method references:

18 NOAA Congeners: *Polychlorinated Biphenyls (PCBs) by Gas Chromatography* in EPA's Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846, Third Edition, Method 8082, Rev. 1, February 2007.

## II. Data Validation Report Summary

This Data Validation Report represents a Tier I+ validation of 18 NOAA PCB Congener sample results and summary QC (method and matrix), which were used to evaluate accuracy, precision, and sensitivity compared to the NBH OU1 QAPP Addendum 2012 requirements.

The following QC elements, as applicable to the analytical methods, were reviewed:

- Data package completeness and reporting protocols
- Sample receipt, holding times and preservation criteria
- Blank results including Method Blanks, Equipment Blanks, & Trip blanks
- Laboratory Control Sample (LCS) recoveries / LCS Duplicate Recoveries
- Surrogate Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries

- MS/MSD, LCS/LCSD, sample/Laboratory Duplicate (LD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including compound lists, reporting limits, and units)
- Calibration criteria\* (including tune criteria, initial calibration and continuing calibration verification)
- Internal Standard (IS) Recoveries\*
- Retention Time windows\*
- Other method-specific QC if applicable and reported\* (e.g., serial dilution results for metals)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

\* This QC element is reviewed associated with the Tier II-type validation only. For Tier I+ validations this QC element is assumed to be acceptable unless otherwise noted in the laboratory narrative.

Based on this Tier I+ validation of 18 NOAA PCB Congeners, all results were considered usable for project decisions based on a comparison to the NBH OU1 QAPP Addendum 2012 requirements and with the understanding of the potential uncertainty (bias) in the qualified results summarized in Table 2. NEH generated electronic validated results based on the project database file received from WHG for these data, by updating the following database fields for field samples and field QC only: VALID\_QUAL, VALIDATION\_LEVEL, VALIDATION, VALID\_DATE, BIAS, and DV\_COMMENT.

The remainder of this report documents “exceptions” to the NBH OU1 QAPP Addendum 2012 criteria or clarifications of data reported. QC elements not discussed below met all QAPP criteria. The full documentation of all QC elements reviewed during the Tier I+ validation are presented in the attached Data Review Checklist.

### **Sample Collection, Receipt, and Holding Time**

The CAP sediment core samples were received at the laboratory on November 16, 2012. The samples were frozen immediately and then removed from storage on November 27, 2012 and analyzed for percent solids content. All samples had percent solids content of 48 to 84%; therefore these sediment core samples were air-dried, as required by the QAPP. The samples were returned to frozen storage on November 29, 2012. On December 5, 2012 the samples were again removed from storage, extracted for PCBs, and air-dried percent solids determination was performed. The laboratory maintained the same Lab Sample ID for both the “as received” and “air-dried” sediment aliquots.

After air-drying, the percent solids content for all samples was greater than 99%. As a consequence of the freezing of the aliquots by Alpha, these samples were considered to have been extracted and analyzed within holding time.

### **Accuracy**

The Method and Equipment Blanks were non-detect for all Congeners; therefore, blank action was not required.

Based on the high levels of PCB Congeners observed in previous site sediments, the laboratory used a “high level” surrogate spike; therefore, appropriate surrogate spike recoveries could be evaluated for accuracy in the sample matrix (see QAPP 2012 for further discussion of surrogate spiking solution levels). All surrogate recoveries met acceptance criteria for the samples in this SDG.

The LCS/LCSD recoveries were acceptable for all 18 NOAA Congeners. These results indicate acceptable laboratory accuracy for the method of analysis in the absence of the site matrix.

MS/MSD analyses were performed on the sample S-12N-G014-0.0-0.1. Accuracy was acceptable for all 18 NOAA Congeners for the site matrix.

### **Precision**

LCS/LCSD precision was acceptable for all 18 NOAA Congeners. These results indicate acceptable laboratory precision for the method of analysis in the absence of the site matrix.

MS/MSD precision was acceptable for the analyses performed on sample S-12N-G014-0.0-0.1.

There was one Field Duplicate pair reported in this SDG: S-12N-G009-0.0-0.1 / S-12N-G009-0.0-0.1-REP. FD precision was unacceptable (RPD > 50%) for ten of the 18 NOAA Congeners in this FD pair. These ten Congener results were estimated (J) in both FD pair samples with indeterminate bias due to FD imprecision as listed in Table 2. These FD results are an indication of sample heterogeneity that may affect representativeness of the 18 NOAA PCB Congeners to the site sediment locations.

### **Sensitivity & Reporting**

Several samples were analyzed with various dilutions to report all Congeners within the instrument calibration range. For these samples, all reporting limits (RLs), reported as DETECT\_LIMIT in the validated EDD, were increased as a consequence of the dilutions made (RLs were 1 to over 27 times higher than the 5 µg/Kg PQL given in QAPP Worksheet #15 of the NHB OU1 QAPP Addendum 2012). Total PCBs (as the sum of all detected Congener results) for several of the samples analyzed at dilutions were detected at a level above the Project Action Limit (PAL) for Total PCBs given in Worksheet #15; therefore, sensitivity was generally considered acceptable.

The laboratory reported all results for samples analyzed with dilutions with a “D” qualifier. At Battelle’s request, these “D” qualifiers were maintained during the DV process.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
S-12N-G009-0.0-0.1 S-12N-G009-0.0-0.1-REP	2,4'-Dichlorobiphenyl 2,2',5'-Trichlorobiphenyl 2,2',3,5'-Tetrachlorobiphenyl 2,2',5,5'-Tetrachlorobiphenyl 2,3',4,4'-Tetrachlorobiphenyl 2,2',4,5,5'-Pentachlorobiphenyl 2,3,3',4,4'-Pentachlorobiphenyl 2,3',4,4',5-Pentachlorobiphenyl 2,2',3,3',4,4'-Hexachlorobiphenyl 2,2',3,4,4',5'-Hexachlorobiphenyl	J	I	FD imprecision

*Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = analyte detected in associated equipment blank; EMPC = estimated maximum possible concentration (PCB congeners only); R = Result is rejected and is unusable for project decisions.*

*Bias: L = Low; H = High; I = Indeterminate*

*Abbreviations used in Table 2:*

*FD = Field Duplicate*

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# MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 2

WESTBORO, MA  
 TEL: 508-898-9220  
 FAX: 508-898-9193

MANSFIELD, MA  
 TEL: 508-822-9300  
 FAX: 508-822-3288

## Project Information

Project Name: *New Bedford OUS Cap*  
 Project Location: *New Bedford, MA*  
 Project #: *TO-0010-07*  
 Project Manager: *Dave Walsh*  
 ALPHA Quote #:

Date Rec'd in Lab:  
 Report Information - Data Deliverables  
 FAX  EMAIL  
 ADEX  Add'l Deliverables

ALPHA Job #: *L1221058*  
 Billing Information  
 Same as Client info PO #:

## Client Information

Client: *WOODS Hole Group*  
 Address: *81 Technology Park Dr  
 East Falmouth, MA 02536*  
 Phone: *508-540-8080*  
 Fax: *508-540-1001*  
 Email: *DSTUART@WHGRP.COM*

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
 Date Due: Time:

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:  
*Homogenize before analysis*

**PLEASE NOTE** Project-specific EDD  
 MS/MSD (at unit cost) will be omitted unless you check here:

Regulatory Requirements/Report Limits  
 State (Fed Program) Criteria

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS	MOA-18 PCB Comments		SAMPLE HANDLING		TOTAL # BOTTLES	
		Date	Time									
- 1	S-12N-G001-0.0-0.1	11/15/12	0801	SE	DS	X					0018-12	1
- 2	S-12N-G002-0.0-0.1		0815			X					0023-12	1
- 3	S-12N-G003-0.0-0.1		0822			X					0021-12	1
- 4	S-12N-G004-0.0-0.1		0830			X					0024-12	1
- 5	S-12N-G005-0.0-0.1		0835			X					0003-12	1
- 6	S-12N-G006-0.0-0.1		0848			X					0002-12	1
- 7	S-12N-G007-0.0-0.1		0900			X					0004-12	1
- 8	S-12N-G008-0.0-0.1		0911			X					0006-12	1
- 9	S-12N-G009-0.0-0.1		0920			X					0007-12	1
- 10	S-12N-G009-0.0-0.1-REP		0920			X					0007-12-REP 0007-REP-12	1

Container Type **A**  
 Preservative **A**

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By: *Dad Stuart* Date/Time: *11/16/12 0515*  
 Received By: *KCMA* Date/Time: *11/16/12 0915*



# MANSFIELD CHAIN OF CUSTODY

PAGE 2 OF 2

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

**Client Information**

Client: WOODS Hole Group  
Address: 81 Technology Park Dr  
East Falmouth, MA 02536  
Phone: 508-540-8080  
Fax: 508-540-1001  
Email: DSTUART@WHGRP.COM

 These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Homogenize before analysis**PLEASE NOTE**Project-specific EDDMS/MSD (at unit cost) will be omitted unless you check here: **Project Information**

Project Name: New Bedford OU3 Cap  
Project Location: New Bedford, MA  
Project #: TO-0010-07  
Project Manager: Dave Walsh  
ALPHA Quote #:

**Turn-Around Time** Standard  RUSH (only confirmed if pre-approved)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab: \_\_\_\_\_

ALPHA Job #: L1221058**Report Information - Data Deliverables**

FAX  EMAIL  
 ADEx  Add'l Deliverables

**Billing Information** Same as Client info PO #: \_\_\_\_\_**Regulatory Requirements/Report Limits**State Fed Program Criteria

ANALYSIS  
NOAA-18 PCB Compens

**SAMPLE HANDLING**

Filtration \_\_\_\_\_  
 Done  
 Not needed  
Preservation  
 Lab to do  
 Lab to do  
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials														Sample Specific Comments					
		Date	Time																					
- 11	S-12N-G010-0.0-0.1	11/15/12	0942	SE	DS	X														OU08-12	1			
- 12	S-12N-G011-0.0-0.1		0952			X															OU09-12	1		
- 13	S-12N-G012-0.0-0.1		1004			X																OU22-12	1	
- 14	S-12N-G013-0.0-0.1		1015			X																OU13-12	1	
- 15	S-12N-G014-0.0-0.1		1030			X																OU12-12	1	
	S-12N-G014-0.0-0.1-MSMSD		1030			X																<del>OU12-MSMSD</del> OU12-MSMSD	1	
- 16	S-12N-G015-0.0-0.1		1045			X																	OU25-12	1
- 17	S-12N-G016-0.0-0.1		1058			X																	OU19-12	1
- 18	S-12N-G017-0.0-0.1		1112			X																	OU16-12	1
- 19	EB-111512-01		1135		SW	DS	X																Equipment Blank	2

Container Type APreservative A

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By: <u>Dave Walsh</u>	Date/Time <u>11/16/12 0915</u>	Received By: <u>[Signature]</u>	Date/Time <u>11/16/12 1013</u>
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## ANALYTICAL REPORT

Lab Number:	L1221058
Client:	Woods Hole Group 81 Technology Park Drive East Falmouth, MA 02536
ATTN:	Dack Stuart
Phone:	(508) 540-8080
Project Name:	NEW BEDFORD OU3 CAP
Project Number:	TO-0010-07
Report Date:	12/11/12

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.

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)





**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1221058-01	S-12N-G001-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:01
L1221058-02	S-12N-G002-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:15
L1221058-03	S-12N-G003-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:22
L1221058-04	S-12N-G004-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:30
L1221058-05	S-12N-G005-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:35
L1221058-06	S-12N-G006-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:48
L1221058-07	S-12N-G007-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:00
L1221058-08	S-12N-G008-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:11
L1221058-09	S-12N-G009-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:20
L1221058-10	S-12N-G009-0.0-0.1-REP	NEW BEDFORD, MA	11/15/12 09:20
L1221058-11	S-12N-G010-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:42
L1221058-12	S-12N-G011-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:52
L1221058-13	S-12N-G012-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:04
L1221058-14	S-12N-G013-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:15
L1221058-15	S-12N-G014-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:30
L1221058-16	S-12N-G015-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:45
L1221058-17	S-12N-G016-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:58
L1221058-18	S-12N-G017-0.0-0.1	NEW BEDFORD, MA	11/15/12 11:12
L1221058-19	EB-111512-01	NEW BEDFORD, MA	11/15/12 11:35

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### 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. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for 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 free of charge for 30 days from the date the project is completed. After 30 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.

Please contact Client Services at 800-624-9220 with any questions.

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### Case Narrative (continued)

#### Sample Receipt

Sediment samples were received intact on November 16, 2012. The samples were placed in frozen storage immediately upon receipt. The samples were removed November 27, 2012 and analyzed for initial percent solids air-dried and then replaced in frozen storage on November 29, 2012. Samples were again removed from frozen storage on December 5, 2012 when they were removed to extract samples for PCB Congener analysis and analyze for air-dried percent solids.

#### PCB Congeners by GC/ECD

The PCB Congener analysis was performed utilizing dual column confirmation with the higher of the two values reported. Technical judgment was employed in the case of an observed interference. In each case that interference was observed on one column, the value from the opposite column was reported regardless of whether it was the higher or lower value.

The WG575133-2/-3 LCS/LCSD recoveries, associated with L1221058-19, are below the individual acceptance criteria for Cl2-BZ#8(26%)/(28%) due to obvious interference.

Samples L1221058-01, 02, 03, 04, 07, 13, 14, 15, and 17 have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in 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:  Cynthia McQueen

Title: Technical Director/Representative

Date: 12/11/12

# ORGANICS

# PCBS

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-01 D  
 Client ID: S-12N-G001-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 07:43  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:01  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	300		ug/kg	132	--	100
CI3-BZ#18	360		ug/kg	132	--	100
CI4-BZ#52	329		ug/kg	132	--	100
CI4-BZ#66	247		ug/kg	132	--	100
CI5-BZ#118	172		ug/kg	132	--	100
CI5-BZ#105	ND		ug/kg	132	--	100
CI6-BZ#138	ND		ug/kg	132	--	100
CI7-BZ#187	ND		ug/kg	132	--	100
CI6-BZ#128	ND		ug/kg	132	--	100
CI7-BZ#180	ND		ug/kg	132	--	100
CI7-BZ#170	ND		ug/kg	132	--	100
CI8-BZ#195	ND		ug/kg	132	--	100
CI9-BZ#206	ND		ug/kg	132	--	100
CI10-BZ#209	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-01 D  
 Client ID: S-12N-G001-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 07:43  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:01  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						

CI3-BZ#28	460		ug/kg	132	--	100
CI4-BZ#44	152		ug/kg	132	--	100
CI5-BZ#101	ND		ug/kg	132	--	100
CI6-BZ#153	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-02 D  
 Client ID: S-12N-G002-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 08:27  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#18	282		ug/kg	130	--	100
CI4-BZ#52	249		ug/kg	130	--	100
CI4-BZ#66	184		ug/kg	130	--	100
CI5-BZ#118	137		ug/kg	130	--	100
CI5-BZ#105	ND		ug/kg	130	--	100
CI6-BZ#138	ND		ug/kg	130	--	100
CI7-BZ#187	ND		ug/kg	130	--	100
CI6-BZ#128	ND		ug/kg	130	--	100
CI7-BZ#180	ND		ug/kg	130	--	100
CI7-BZ#170	ND		ug/kg	130	--	100
CI8-BZ#195	ND		ug/kg	130	--	100
CI9-BZ#206	ND		ug/kg	130	--	100
CI10-BZ#209	ND		ug/kg	130	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	81		30-150
BZ 198	74		30-150



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-02 D  
 Client ID: S-12N-G002-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 08:27  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	320		ug/kg	130	--	100
Cl3-BZ#28	319		ug/kg	130	--	100
Cl4-BZ#44	ND		ug/kg	130	--	100
Cl5-BZ#101	ND		ug/kg	130	--	100
Cl6-BZ#153	ND		ug/kg	130	--	100

DBOB	81	30-150
BZ 198	74	30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-03 D  
 Client ID: S-12N-G003-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:10  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:22  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	382		ug/kg	132	--	100
CI3-BZ#18	275		ug/kg	132	--	100
CI4-BZ#52	333		ug/kg	132	--	100
CI4-BZ#66	272		ug/kg	132	--	100
CI5-BZ#118	191		ug/kg	132	--	100
CI6-BZ#138	ND		ug/kg	132	--	100
CI7-BZ#187	ND		ug/kg	132	--	100
CI6-BZ#128	ND		ug/kg	132	--	100
CI7-BZ#180	ND		ug/kg	132	--	100
CI7-BZ#170	ND		ug/kg	132	--	100
CI8-BZ#195	ND		ug/kg	132	--	100
CI9-BZ#206	ND		ug/kg	132	--	100
CI10-BZ#209	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-03 D  
 Client ID: S-12N-G003-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:10  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:22  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	442		ug/kg	132	--	100
CI4-BZ#44	146		ug/kg	132	--	100
CI5-BZ#101	148		ug/kg	132	--	100
CI6-BZ#153	ND		ug/kg	132	--	100
CI5-BZ#105	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-04 D  
 Client ID: S-12N-G004-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:54  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	295		ug/kg	131	--	100
CI3-BZ#18	232		ug/kg	131	--	100
CI4-BZ#52	288		ug/kg	131	--	100
CI4-BZ#66	191		ug/kg	131	--	100
CI5-BZ#118	ND		ug/kg	131	--	100
CI5-BZ#105	ND		ug/kg	131	--	100
CI6-BZ#138	ND		ug/kg	131	--	100
CI7-BZ#187	ND		ug/kg	131	--	100
CI6-BZ#128	ND		ug/kg	131	--	100
CI7-BZ#180	ND		ug/kg	131	--	100
CI7-BZ#170	ND		ug/kg	131	--	100
CI8-BZ#195	ND		ug/kg	131	--	100
CI9-BZ#206	ND		ug/kg	131	--	100
CI10-BZ#209	ND		ug/kg	131	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	83		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-04 D  
 Client ID: S-12N-G004-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:54  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	303		ug/kg	131	--	100
CI4-BZ#44	ND		ug/kg	131	--	100
CI5-BZ#101	ND		ug/kg	131	--	100
CI6-BZ#153	ND		ug/kg	131	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	83		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-05  
 Client ID: S-12N-G005-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 17:55  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:35  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI2-BZ#8	3.69		ug/kg	1.32	--	1
CI3-BZ#18	3.91		ug/kg	1.32	--	1
CI4-BZ#52	5.95		ug/kg	1.32	--	1
CI4-BZ#66	5.57		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

DBOB 73 30-150  
 BZ 198 81 30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-05  
 Client ID: S-12N-G005-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 17:55  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:35  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	6.70		ug/kg	1.32	--	1
CI4-BZ#44	2.24		ug/kg	1.32	--	1
CI5-BZ#101	3.88		ug/kg	1.32	--	1
CI5-BZ#118	5.31		ug/kg	1.32	--	1
CI6-BZ#153	3.00		ug/kg	1.32	--	1
CI5-BZ#105	1.62		ug/kg	1.32	--	1
CI6-BZ#138	2.94		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI6-BZ#128	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	73		30-150
BZ 198	81		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-06  
 Client ID: S-12N-G006-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 18:39  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:48  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	9.02		ug/kg	1.32	--	1
CI3-BZ#18	6.58		ug/kg	1.32	--	1
CI4-BZ#52	15.6		ug/kg	1.32	--	1
CI4-BZ#44	6.33		ug/kg	1.32	--	1
CI4-BZ#66	17.0		ug/kg	1.32	--	1
CI5-BZ#118	17.9		ug/kg	1.32	--	1
CI6-BZ#138	12.8		ug/kg	1.32	--	1
CI6-BZ#128	3.07		ug/kg	1.32	--	1
CI7-BZ#180	1.94		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	75		30-150
BZ 198	76		30-150



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-06  
 Client ID: S-12N-G006-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 18:39  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:48  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	16.6		ug/kg	1.32	--	1
CI5-BZ#101	10.2		ug/kg	1.32	--	1
CI6-BZ#153	8.54		ug/kg	1.32	--	1
CI5-BZ#105	5.28		ug/kg	1.32	--	1
CI7-BZ#187	1.53		ug/kg	1.32	--	1

DBOB 75 30-150  
 BZ 198 76 30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-07 D  
 Client ID: S-12N-G007-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 15:22  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 09:00  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	30.9		ug/kg	6.58	--	5
CI3-BZ#18	24.8		ug/kg	6.58	--	5
CI4-BZ#52	68.8		ug/kg	6.58	--	5
CI4-BZ#44	25.5		ug/kg	6.58	--	5
CI4-BZ#66	67.0		ug/kg	6.58	--	5
CI5-BZ#118	71.0		ug/kg	6.58	--	5
CI6-BZ#128	12.1		ug/kg	6.58	--	5
CI7-BZ#180	7.05		ug/kg	6.58	--	5
CI7-BZ#170	ND		ug/kg	6.58	--	5
CI8-BZ#195	ND		ug/kg	6.58	--	5
CI9-BZ#206	ND		ug/kg	6.58	--	5
CI10-BZ#209	ND		ug/kg	6.58	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-07 D  
 Client ID: S-12N-G007-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 15:22  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 09:00  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	61.0		ug/kg	6.58	--	5
CI5-BZ#101	41.6		ug/kg	6.58	--	5
CI6-BZ#153	35.7		ug/kg	6.58	--	5
CI5-BZ#105	20.0		ug/kg	6.58	--	5
CI6-BZ#138	31.8		ug/kg	6.58	--	5
CI7-BZ#187	6.89		ug/kg	6.58	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-08  
 Client ID: S-12N-G008-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:06  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:11  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	8.30		ug/kg	1.32	--	1
CI3-BZ#18	7.04		ug/kg	1.32	--	1
CI4-BZ#52	14.6		ug/kg	1.32	--	1
CI4-BZ#44	6.00		ug/kg	1.32	--	1
CI4-BZ#66	14.4		ug/kg	1.32	--	1
CI5-BZ#118	15.1		ug/kg	1.32	--	1
CI6-BZ#138	10.2		ug/kg	1.32	--	1
CI6-BZ#128	2.55		ug/kg	1.32	--	1
CI7-BZ#180	1.50		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	1.59		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-08  
 Client ID: S-12N-G008-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:06  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:11  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	15.1		ug/kg	1.32	--	1
CI5-BZ#101	9.17		ug/kg	1.32	--	1
CI6-BZ#153	7.42		ug/kg	1.32	--	1
CI5-BZ#105	4.45		ug/kg	1.32	--	1
CI7-BZ#187	1.38		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-09  
 Client ID: S-12N-G009-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:50  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	6.88		ug/kg	1.32	--	1
CI3-BZ#18	6.46		ug/kg	1.32	--	1
CI4-BZ#52	10.6		ug/kg	1.32	--	1
CI4-BZ#44	4.14		ug/kg	1.32	--	1
CI4-BZ#66	10.4		ug/kg	1.32	--	1
CI5-BZ#118	10.6		ug/kg	1.32	--	1
CI6-BZ#138	7.30		ug/kg	1.32	--	1
CI6-BZ#128	1.87		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-09  
 Client ID: S-12N-G009-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:50  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	12.7		ug/kg	1.32	--	1
CI5-BZ#101	7.05		ug/kg	1.32	--	1
CI6-BZ#153	5.69		ug/kg	1.32	--	1
CI5-BZ#105	3.45		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-10  
**Client ID:** S-12N-G009-0.0-0.1-REP  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 21:34  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	13.2		ug/kg	1.31	--	1
CI3-BZ#18	11.3		ug/kg	1.31	--	1
CI4-BZ#52	21.6		ug/kg	1.31	--	1
CI4-BZ#44	8.39		ug/kg	1.31	--	1
CI4-BZ#66	21.1		ug/kg	1.31	--	1
CI5-BZ#118	20.7		ug/kg	1.31	--	1
CI6-BZ#138	14.3		ug/kg	1.31	--	1
CI6-BZ#128	3.69		ug/kg	1.31	--	1
CI7-BZ#180	1.97		ug/kg	1.31	--	1
CI7-BZ#170	1.56		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	79		30-150
BZ 198	79		30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-10  
**Client ID:** S-12N-G009-0.0-0.1-REP  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 21:34  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	19.9		ug/kg	1.31	--	1
CI5-BZ#101	11.9		ug/kg	1.31	--	1
CI6-BZ#153	9.38		ug/kg	1.31	--	1
CI5-BZ#105	6.03		ug/kg	1.31	--	1
CI7-BZ#187	2.08		ug/kg	1.31	--	1

DBOB	79	30-150
BZ 198	79	30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-11  
 Client ID: S-12N-G010-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 23:01  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:42  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	6.66		ug/kg	1.31	--	1
CI3-BZ#18	5.98		ug/kg	1.31	--	1
CI4-BZ#52	8.42		ug/kg	1.31	--	1
CI4-BZ#44	3.13		ug/kg	1.31	--	1
CI4-BZ#66	7.66		ug/kg	1.31	--	1
CI5-BZ#118	7.88		ug/kg	1.31	--	1
CI6-BZ#138	5.09		ug/kg	1.31	--	1
CI6-BZ#128	1.31		ug/kg	1.31	--	1
CI7-BZ#180	ND		ug/kg	1.31	--	1
CI7-BZ#170	ND		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-11  
 Client ID: S-12N-G010-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 23:01  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:42  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	9.72		ug/kg	1.31	--	1
CI5-BZ#101	5.23		ug/kg	1.31	--	1
CI6-BZ#153	4.10		ug/kg	1.31	--	1
CI5-BZ#105	2.62		ug/kg	1.31	--	1
CI7-BZ#187	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-12  
 Client ID: S-12N-G011-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 23:45  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:52  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	10.9		ug/kg	1.31	--	1
CI3-BZ#18	10.8		ug/kg	1.31	--	1
CI4-BZ#52	13.2		ug/kg	1.31	--	1
CI4-BZ#44	4.74		ug/kg	1.31	--	1
CI4-BZ#66	11.3		ug/kg	1.31	--	1
CI5-BZ#118	11.5		ug/kg	1.31	--	1
CI6-BZ#138	6.98		ug/kg	1.31	--	1
CI6-BZ#128	1.87		ug/kg	1.31	--	1
CI7-BZ#180	ND		ug/kg	1.31	--	1
CI7-BZ#170	ND		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-12  
 Client ID: S-12N-G011-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 23:45  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:52  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	15.5		ug/kg	1.31	--	1
CI5-BZ#101	7.07		ug/kg	1.31	--	1
CI6-BZ#153	5.24		ug/kg	1.31	--	1
CI5-BZ#105	3.50		ug/kg	1.31	--	1
CI7-BZ#187	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-13 D  
 Client ID: S-12N-G012-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:05  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:04  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	94.5		ug/kg	6.67	--	5
CI3-BZ#18	63.1		ug/kg	6.67	--	5
CI4-BZ#52	93.6		ug/kg	6.67	--	5
CI4-BZ#44	32.3		ug/kg	6.67	--	5
CI4-BZ#66	71.5		ug/kg	6.67	--	5
CI5-BZ#118	52.3		ug/kg	6.67	--	5
CI6-BZ#138	31.6		ug/kg	6.67	--	5
CI6-BZ#128	8.33		ug/kg	6.67	--	5
CI7-BZ#170	ND		ug/kg	6.67	--	5
CI8-BZ#195	ND		ug/kg	6.67	--	5
CI9-BZ#206	ND		ug/kg	6.67	--	5
CI10-BZ#209	ND		ug/kg	6.67	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		30-150
BZ 198	71		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-13 D  
 Client ID: S-12N-G012-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:05  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:04  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	110		ug/kg	6.67	--	5
CI5-BZ#101	33.4		ug/kg	6.67	--	5
CI6-BZ#153	23.3		ug/kg	6.67	--	5
CI5-BZ#105	16.5		ug/kg	6.67	--	5
CI7-BZ#187	ND		ug/kg	6.67	--	5
CI7-BZ#180	ND		ug/kg	6.67	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		30-150
BZ 198	71		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-14 D  
 Client ID: S-12N-G013-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:49  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	162		ug/kg	13.3	--	10
CI3-BZ#18	125		ug/kg	13.3	--	10
CI4-BZ#52	118		ug/kg	13.3	--	10
CI4-BZ#66	111		ug/kg	13.3	--	10
CI5-BZ#118	91.5		ug/kg	13.3	--	10
CI6-BZ#138	47.6		ug/kg	13.3	--	10
CI7-BZ#187	ND		ug/kg	13.3	--	10
CI6-BZ#128	ND		ug/kg	13.3	--	10
CI7-BZ#180	ND		ug/kg	13.3	--	10
CI7-BZ#170	ND		ug/kg	13.3	--	10
CI8-BZ#195	ND		ug/kg	13.3	--	10
CI9-BZ#206	ND		ug/kg	13.3	--	10
CI10-BZ#209	ND		ug/kg	13.3	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-14 D  
 Client ID: S-12N-G013-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:49  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	204		ug/kg	13.3	--	10
CI4-BZ#44	45.3		ug/kg	13.3	--	10
CI5-BZ#101	56.9		ug/kg	13.3	--	10
CI6-BZ#153	35.6		ug/kg	13.3	--	10
CI5-BZ#105	27.6		ug/kg	13.3	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-15 D  
 Client ID: S-12N-G014-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 17:33  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	20.7		ug/kg	2.65	--	2
CI3-BZ#18	18.0		ug/kg	2.65	--	2
CI4-BZ#52	24.2		ug/kg	2.65	--	2
CI4-BZ#44	9.99		ug/kg	2.65	--	2
CI4-BZ#66	24.2		ug/kg	2.65	--	2
CI5-BZ#118	22.6		ug/kg	2.65	--	2
CI6-BZ#138	14.4		ug/kg	2.65	--	2
CI6-BZ#128	3.75		ug/kg	2.65	--	2
CI7-BZ#180	ND		ug/kg	2.65	--	2
CI7-BZ#170	ND		ug/kg	2.65	--	2
CI8-BZ#195	ND		ug/kg	2.65	--	2
CI9-BZ#206	ND		ug/kg	2.65	--	2
CI10-BZ#209	ND		ug/kg	2.65	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	83		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-15 D  
 Client ID: S-12N-G014-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 17:33  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	31.4		ug/kg	2.65	--	2
CI5-BZ#101	13.8		ug/kg	2.65	--	2
CI6-BZ#153	10.6		ug/kg	2.65	--	2
CI5-BZ#105	6.66		ug/kg	2.65	--	2
CI7-BZ#187	ND		ug/kg	2.65	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	83		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-16  
 Client ID: S-12N-G015-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/09/12 02:40  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:45  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	4.71		ug/kg	1.32	--	1
CI3-BZ#18	5.78		ug/kg	1.32	--	1
CI4-BZ#52	7.85		ug/kg	1.32	--	1
CI4-BZ#44	3.25		ug/kg	1.32	--	1
CI4-BZ#66	8.63		ug/kg	1.32	--	1
CI5-BZ#118	7.65		ug/kg	1.32	--	1
CI6-BZ#138	5.54		ug/kg	1.32	--	1
CI6-BZ#128	1.40		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	86		30-150
BZ 198	85		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-16  
 Client ID: S-12N-G015-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/09/12 02:40  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:45  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	8.68		ug/kg	1.32	--	1
CI5-BZ#101	5.14		ug/kg	1.32	--	1
CI6-BZ#153	4.26		ug/kg	1.32	--	1
CI5-BZ#105	2.49		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1

DBOB	86	30-150
BZ 198	85	30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-17 D  
 Client ID: S-12N-G016-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 18:17  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:58  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	95.9		ug/kg	6.63	--	5
CI3-BZ#18	88.0		ug/kg	6.63	--	5
CI4-BZ#52	102		ug/kg	6.63	--	5
CI4-BZ#44	37.3		ug/kg	6.63	--	5
CI4-BZ#66	94.9		ug/kg	6.63	--	5
CI5-BZ#118	84.8		ug/kg	6.63	--	5
CI6-BZ#138	48.8		ug/kg	6.63	--	5
CI6-BZ#128	12.8		ug/kg	6.63	--	5
CI7-BZ#180	6.72		ug/kg	6.63	--	5
CI7-BZ#170	ND		ug/kg	6.63	--	5
CI8-BZ#195	ND		ug/kg	6.63	--	5
CI9-BZ#206	ND		ug/kg	6.63	--	5
CI10-BZ#209	ND		ug/kg	6.63	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-17 D  
 Client ID: S-12N-G016-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 18:17  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:58  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	130		ug/kg	6.63	--	5
CI5-BZ#101	49.1		ug/kg	6.63	--	5
CI6-BZ#153	32.8		ug/kg	6.63	--	5
CI5-BZ#105	24.6		ug/kg	6.63	--	5
CI7-BZ#187	6.87		ug/kg	6.63	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-18 D  
**Client ID:** S-12N-G017-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 13:33  
**Analyst:** JW  
**Percent Solids:** 99%

**Date Collected:** 11/15/12 11:12  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	485		ug/kg	133	--	100
CI3-BZ#18	399		ug/kg	133	--	100
CI4-BZ#52	392		ug/kg	133	--	100
CI4-BZ#66	360		ug/kg	133	--	100
CI5-BZ#118	280		ug/kg	133	--	100
CI6-BZ#138	152		ug/kg	133	--	100
CI7-BZ#187	ND		ug/kg	133	--	100
CI6-BZ#128	ND		ug/kg	133	--	100
CI7-BZ#180	ND		ug/kg	133	--	100
CI7-BZ#170	ND		ug/kg	133	--	100
CI8-BZ#195	ND		ug/kg	133	--	100
CI9-BZ#206	ND		ug/kg	133	--	100
CI10-BZ#209	ND		ug/kg	133	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	73		30-150



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-18 D  
 Client ID: S-12N-G017-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 13:33  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 11:12  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	672		ug/kg	133	--	100
CI4-BZ#44	169		ug/kg	133	--	100
CI5-BZ#101	202		ug/kg	133	--	100
CI6-BZ#153	ND		ug/kg	133	--	100
CI5-BZ#105	ND		ug/kg	133	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-19  
 Client ID: EB-111512-01  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/06/12 01:37  
 Analyst: JW

Date Collected: 11/15/12 11:35  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	ND		ug/l	0.00500	--	1
CI3-BZ#18	ND		ug/l	0.00500	--	1
CI3-BZ#28	ND		ug/l	0.00500	--	1
CI4-BZ#52	ND		ug/l	0.00500	--	1
CI4-BZ#44	ND		ug/l	0.00500	--	1
CI4-BZ#66	ND		ug/l	0.00500	--	1
CI5-BZ#101	ND		ug/l	0.00500	--	1
CI5-BZ#118	ND		ug/l	0.00500	--	1
CI5-BZ#105	ND		ug/l	0.00500	--	1
CI6-BZ#138	ND		ug/l	0.00500	--	1
CI7-BZ#187	ND		ug/l	0.00500	--	1
CI6-BZ#128	ND		ug/l	0.00500	--	1
CI7-BZ#180	ND		ug/l	0.00500	--	1
CI7-BZ#170	ND		ug/l	0.00500	--	1
CI8-BZ#195	ND		ug/l	0.00500	--	1
CI9-BZ#206	ND		ug/l	0.00500	--	1
CI10-BZ#209	ND		ug/l	0.00500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	88		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-19  
**Client ID:** EB-111512-01  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/06/12 01:37  
**Analyst:** JW

**Date Collected:** 11/15/12 11:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl6-BZ#153	ND		ug/l	0.00500	--	1
DBOB	88			30-150		
BZ 198	82			30-150		

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8082A  
**Analytical Date:** 12/05/12 11:52  
**Analyst:** JW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 19 Batch: WG575133-1					
Cl2-BZ#8	ND		ug/l	0.00500	--
Cl3-BZ#18	ND		ug/l	0.00500	--
Cl3-BZ#28	ND		ug/l	0.00500	--
Cl4-BZ#52	ND		ug/l	0.00500	--
Cl4-BZ#44	ND		ug/l	0.00500	--
Cl4-BZ#66	ND		ug/l	0.00500	--
Cl5-BZ#101	ND		ug/l	0.00500	--
Cl5-BZ#118	ND		ug/l	0.00500	--
Cl5-BZ#105	ND		ug/l	0.00500	--
Cl6-BZ#138	ND		ug/l	0.00500	--
Cl7-BZ#187	ND		ug/l	0.00500	--
Cl6-BZ#128	ND		ug/l	0.00500	--
Cl7-BZ#180	ND		ug/l	0.00500	--
Cl7-BZ#170	ND		ug/l	0.00500	--
Cl8-BZ#195	ND		ug/l	0.00500	--
Cl9-BZ#206	ND		ug/l	0.00500	--
Cl10-BZ#209	ND		ug/l	0.00500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	92		30-150
BZ 198	87		30-150

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 12/05/12 11:52  
 Analyst: JW

Extraction Method: EPA 3510C  
 Extraction Date: 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 19 Batch: WG575133-1					
C16-BZ#153	ND		ug/l	0.00500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	92		30-150
BZ 198	87		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 12/07/12 14:57  
Analyst: JW

Extraction Method: EPA 3540C  
Extraction Date: 12/05/12 13:14  
Cleanup Method1: EPA 3630  
Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-18 Batch: WG577504-1					
Cl2-BZ#8	ND		ug/kg	1.33	--
Cl3-BZ#18	ND		ug/kg	1.33	--
Cl3-BZ#28	ND		ug/kg	1.33	--
Cl4-BZ#52	ND		ug/kg	1.33	--
Cl4-BZ#44	ND		ug/kg	1.33	--
Cl4-BZ#66	ND		ug/kg	1.33	--
Cl5-BZ#101	ND		ug/kg	1.33	--
Cl5-BZ#118	ND		ug/kg	1.33	--
Cl5-BZ#105	ND		ug/kg	1.33	--
Cl6-BZ#138	ND		ug/kg	1.33	--
Cl7-BZ#187	ND		ug/kg	1.33	--
Cl6-BZ#128	ND		ug/kg	1.33	--
Cl7-BZ#180	ND		ug/kg	1.33	--
Cl7-BZ#170	ND		ug/kg	1.33	--
Cl8-BZ#195	ND		ug/kg	1.33	--
Cl9-BZ#206	ND		ug/kg	1.33	--
Cl10-BZ#209	ND		ug/kg	1.33	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	82		30-150
BZ 198	99		30-150

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 12/07/12 14:57  
 Analyst: JW

Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-18 Batch: WG577504-1					
C16-BZ#153	ND		ug/kg	1.33	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	82		30-150
BZ 198	99		30-150

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 QC Batch ID: WG577504-4 WG577504-5 QC Sample: L1221058-15 Client ID: S-12N-G014-0.0-0.1												
Cl2-BZ#8	20.7	1660	1130	67		1160	70		40-140	3		30
Cl3-BZ#18	18.0	1660	1190	71		1210	73		40-140	2		30
Cl4-BZ#52	24.2	1660	1180	70		1220	73		40-140	3		30
Cl4-BZ#66	24.2	1660	1280	76		1310	79		40-140	2		30
Cl5-BZ#118	22.6	1660	1240	74		1300	78		40-140	5		30
Cl5-BZ#105	ND	1660	1270	76		1320	80		40-140	4		30
Cl6-BZ#138	14.4	1660	1250	75		1290	78		40-140	3		30
Cl6-BZ#128	3.75	1660	1230	74		1270	78		40-140	3		30
Cl7-BZ#180	ND	1660	1280	77		1300	80		40-140	2		30
Cl7-BZ#170	ND	1660	1210	73		1260	77		40-140	4		30
Cl8-BZ#195	ND	1660	1170	71		1210	74		40-140	3		30
Cl9-BZ#206	ND	1660	1300	79		1330	82		40-140	2		30
Cl10-BZ#209	ND	1660	1080	65		1110	68		40-140	3		30
Cl3-BZ#28	31.4	1660	1130	66		1170	70		40-140	3		30
Cl4-BZ#44	ND	1660	1060	64		1080	66		40-140	2		30
Cl5-BZ#101	13.8	1660	1050	63		1080	65		40-140	3		30
Cl6-BZ#153	10.6	1660	994	59		999	61		40-140	1		30
Cl7-BZ#187	ND	1660	1000	60		1020	63		40-140	2		30



### Matrix Spike Analysis Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18    QC Batch ID: WG577504-4    WG577504-5    QC Sample: L1221058-15    Client ID: S-12N-G014-0.0-0.1

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
DBOB	69		73		30-150
BZ 198	79		80		30-150

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								
Cl2-BZ#8	26	Q	28	Q	40-140	8		30
Cl3-BZ#18	87		103		40-140	17		30
Cl3-BZ#28	87		98		40-140	12		30
Cl4-BZ#52	86		94		40-140	8		30
Cl4-BZ#44	91		97		40-140	7		30
Cl4-BZ#66	91		96		40-140	5		30
Cl5-BZ#101	92		93		40-140	1		30
Cl5-BZ#118	94		95		40-140	1		30
Cl5-BZ#105	89		91		40-140	3		30
Cl6-BZ#138	86		91		40-140	6		30
Cl7-BZ#187	84		83		40-140	2		30
Cl6-BZ#128	85		86		40-140	2		30
Cl7-BZ#180	83		81		40-140	2		30
Cl7-BZ#170	82		80		40-140	2		30
Cl8-BZ#195	84		81		40-140	3		30
Cl9-BZ#206	78		73		40-140	6		30
Cl10-BZ#209	74		69		40-140	8		30

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	83		84		30-150
BZ 198	86		84		30-150

PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								
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Cl6-BZ#153	72		78		40-140	7		30
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DBOB	83		84		30-150
BZ 198	86		84		30-150

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3								
Cl2-BZ#8	80		96		40-140	18		30
Cl3-BZ#18	88		101		40-140	14		30
Cl3-BZ#28	88		97		40-140	10		30
Cl4-BZ#52	94		96		40-140	2		30
Cl4-BZ#44	90		96		40-140	6		30
Cl4-BZ#66	90		94		40-140	4		30
Cl5-BZ#101	91		95		40-140	4		30
Cl5-BZ#118	94		96		40-140	2		30
Cl5-BZ#105	88		89		40-140	1		30
Cl6-BZ#138	92		94		40-140	2		30
Cl7-BZ#187	84		88		40-140	5		30
Cl6-BZ#128	87		91		40-140	4		30
Cl7-BZ#180	86		90		40-140	5		30
Cl7-BZ#170	84		86		40-140	2		30
Cl8-BZ#195	81		83		40-140	2		30
Cl9-BZ#206	92		95		40-140	3		30
Cl10-BZ#209	85		86		40-140	1		30

### Lab Control Sample Analysis

#### Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP

**Lab Number:** L1221058

**Project Number:** TO-0010-07

**Report Date:** 12/11/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	77		85		30-150
BZ 198	89		92		30-150

PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3

Cl6-BZ#153	74		76		40-140	3		30
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Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	77		85		30-150
BZ 198	89		92		30-150

# **INORGANICS & MISCELLANEOUS**

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-01  
**Client ID:** S-12N-G001-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:01  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	65.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-02  
**Client ID:** S-12N-G002-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.2		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB





**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-03  
**Client ID:** S-12N-G003-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:22  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-04  
**Client ID:** S-12N-G004-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:30  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	72.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-05  
**Client ID:** S-12N-G005-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	83.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-06  
**Client ID:** S-12N-G006-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:48  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	75.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-07  
**Client ID:** S-12N-G007-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:00  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.2		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-08  
**Client ID:** S-12N-G008-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:11  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	77.4		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-09  
**Client ID:** S-12N-G009-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	74.0		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-10  
**Client ID:** S-12N-G009-0.0-0.1-REP  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	70.0		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB





**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-11  
**Client ID:** S-12N-G010-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:42  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	100		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	80.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-12  
**Client ID:** S-12N-G011-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:52  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	100		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	76.2		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-13  
**Client ID:** S-12N-G012-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:04  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	72.4		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-14  
**Client ID:** S-12N-G013-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	69.5		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

## SAMPLE RESULTS

Lab ID: L1221058-15  
 Client ID: S-12N-G014-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment

Date Collected: 11/15/12 10:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	73.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-16  
**Client ID:** S-12N-G015-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:45  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	74.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-17  
 Client ID: S-12N-G016-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment

Date Collected: 11/15/12 10:58  
 Date Received: 11/16/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.7		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-18  
**Client ID:** S-12N-G017-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 11:12  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.0		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	48.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB





## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP

**Project Number:** TO-0010-07

**Lab Number:** L1221058

**Report Date:** 12/11/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-18 QC Batch ID: WG577732-1 QC Sample: L1221058-15 Client ID: S-12N-G014-0.0-0.1						
Solids, Total	99.8	99.8	%	0		10

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### 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  
 B Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1221058-01A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-02A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-03A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-04A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-05A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-06A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-07A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-08A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-09A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-10A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-11A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-12A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-13A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-14A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-15A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-MS/MSD(),A2-TS-PREDRIED(7)
L1221058-15B	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-MS/MSD(),A2-TS-PREDRIED(7)
L1221058-16A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)

\*Values in parentheses indicate holding time in days

**Project Name:** NEW BEDFORD OU3 CAP**Project Number:** TO-0010-07**Lab Number:** L1221058**Report Date:** 12/11/12**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1221058-17A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-18A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-19A	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-PCBCONG-8082-NOAA(7)
L1221058-19B	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-PCBCONG-8082-NOAA(7)

\*Values in parentheses indicate holding time in days

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

## 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

**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 five times (5x) 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.
- 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.
- 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 RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

**Report Format:** Data Usability Report



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Data Qualifiers**

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.
- 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 OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

## 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.



## Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### **Connecticut Department of Public Health Certificate/Lab ID: PH-0141.**

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### **Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

### **Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

### **New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

### **New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Atmospheric Organic Parameters* (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

*Biological Tissue* (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

*Air & Emissions* (EPA TO-15, TO-10A.)

**Pennsylvania** Certificate/Lab ID: 68-02089 **NELAP Accredited**

*Non-Potable Water* (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Virginia Division of Consolidated Laboratory Services** Certificate/Lab ID:460194. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

**U.S. Army Corps of Engineers**

**Department of Defense, L-A-B** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

*Air & Emissions* (EPA TO-15.)



**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **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, 2-Methylnaphthalene, 1-Methylnaphthalene.





**MANSFIELD CHAIN OF CUSTODY**

PAGE 2 OF 2

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

**Project Information**

Project Name: New Bedford OU3 Cap

Project Location: New Bedford, MA

Project #: TO-φφ1φ-φ7

Project Manager: Dave Walsh

ALPHA Quote #:

Date Rec'd in Lab:

ALPHA Job #: L1221058

**Report Information - Data Deliverables**

FAX  EMAIL  
 ADEx  Add'l Deliverables

**Billing Information**

Same as Client info PO #:

**Client Information**

Client: WOODS Hole Group

Address: 81 Technology Park Dr  
East Falmouth, MA 02536

Phone: 508-540-8080

Fax: 508-540-1001

Email: DSTUART@WHGRP.COM

These samples have been previously analyzed by Alpha

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Homogenize before analysis

**PLEASE NOTE**

Project-specific EDD

MS/MSD (at unit cost) will be omitted unless you check here:

**Regulatory Requirements/Report Limits**

State Fed Program Criteria

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials											SAMPLE HANDLING Filtration <input type="checkbox"/> Done <input type="checkbox"/> Not needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please specify below) Sample Specific Comments	TOTAL # BOTTLES					
		Date	Time																			
- 11	S-12N-Gφ1φ-φ.φ-φ.1	11/15/12	0942	SE	DS	X															OUφ8 -12	1
- 12	S-12N-Gφ11-φ.φ-φ.1		0952			X															OUφ9 -12	1
- 13	S-12N-Gφ12-φ.φ-φ.1		1004			X															OU 22 -12	1
- 14	S-12N-Gφ13-φ.φ-φ.1		1015			X															OU13 -12	1
- 15	S-12N-Gφ14-φ.φ-φ.1		1030			X															OU12 -12	1
	S-12N-Gφ14-φφ-φ.1-MSMSD		1030			X															<sup>OU12-12 MSMSD</sup> <del>OU12-MSMSD</del>	1
- 16	S-12N-Gφ15-φ.φ-φ.1		1045			X															OU25 -12	1
- 17	S-12N-Gφ16-φ.φ-φ.1		1058			X															OU19 -12	1
- 18	S-12N-Gφ17-φ.φ-φ.1		1112			X															OU16 -12	1
- 19	EB-111512-01		1135	SW	DS	X															Equipment Blank	2

ANALYSIS  
NOAA-18 PCB Compens

Container Type A

Preservative A

Relinquished By: <u>Dave Walsh</u> HGM	Date/Time <u>11/16/12 0915</u> <u>11/16/12 1013</u>	Received By: <u>HGM</u> <u>[Signature]</u>	Date/Time <u>11/14/12 0915</u> <u>11/16/12 1013</u>
--	---	--	---

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

**APPENDIX A    ALPHA ANALYTICAL LABORATORY REPORT**

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## INTRODUCTION

Samples were analyzed at Alpha Analytical Laboratories. Upon receipt, samples were divided into sample delivery groups (SDGs), which were assigned a unique 7-digit number preceded by the letter L. One SDG typically describes 20 samples and consists of three data files. The table below describes the contents of each SDG file from the OU3 cap sampling.

<b>File name</b>	<b>File type</b>	<b>Description</b>
L1221058_coc	.PDF	Scanned copy of the chain of custody.
L1221058_nbh	.CSV	Comma-delimited spreadsheet of analytical data, formatted for the New Bedford Harbor Database.
L1221058_pdf	.PDF	SDG laboratory report.

This Appendix document includes the SDG laboratory report only. All other data files associated with this SDG are included as electronic attachments on the accompanying CD.



## ANALYTICAL REPORT

Lab Number:	L1221058
Client:	Woods Hole Group 81 Technology Park Drive East Falmouth, MA 02536
ATTN:	Dack Stuart
Phone:	(508) 540-8080
Project Name:	NEW BEDFORD OU3 CAP
Project Number:	TO-0010-07
Report Date:	12/11/12

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.

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1221058-01	S-12N-G001-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:01
L1221058-02	S-12N-G002-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:15
L1221058-03	S-12N-G003-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:22
L1221058-04	S-12N-G004-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:30
L1221058-05	S-12N-G005-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:35
L1221058-06	S-12N-G006-0.0-0.1	NEW BEDFORD, MA	11/15/12 08:48
L1221058-07	S-12N-G007-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:00
L1221058-08	S-12N-G008-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:11
L1221058-09	S-12N-G009-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:20
L1221058-10	S-12N-G009-0.0-0.1-REP	NEW BEDFORD, MA	11/15/12 09:20
L1221058-11	S-12N-G010-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:42
L1221058-12	S-12N-G011-0.0-0.1	NEW BEDFORD, MA	11/15/12 09:52
L1221058-13	S-12N-G012-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:04
L1221058-14	S-12N-G013-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:15
L1221058-15	S-12N-G014-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:30
L1221058-16	S-12N-G015-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:45
L1221058-17	S-12N-G016-0.0-0.1	NEW BEDFORD, MA	11/15/12 10:58
L1221058-18	S-12N-G017-0.0-0.1	NEW BEDFORD, MA	11/15/12 11:12
L1221058-19	EB-111512-01	NEW BEDFORD, MA	11/15/12 11:35



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### 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. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for 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 free of charge for 30 days from the date the project is completed. After 30 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.

Please contact Client Services at 800-624-9220 with any questions.

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### Case Narrative (continued)

#### Sample Receipt

Sediment samples were received intact on November 16, 2012. The samples were placed in frozen storage immediately upon receipt. The samples were removed November 27, 2012 and analyzed for initial percent solids air-dried and then replaced in frozen storage on November 29, 2012. Samples were again removed from frozen storage on December 5, 2012 when they were removed to extract samples for PCB Congener analysis and analyze for air-dried percent solids.

#### PCB Congeners by GC/ECD

The PCB Congener analysis was performed utilizing dual column confirmation with the higher of the two values reported. Technical judgment was employed in the case of an observed interference. In each case that interference was observed on one column, the value from the opposite column was reported regardless of whether it was the higher or lower value.

The WG575133-2/-3 LCS/LCSD recoveries, associated with L1221058-19, are below the individual acceptance criteria for Cl2-BZ#8(26%)/(28%) due to obvious interference.

Samples L1221058-01, 02, 03, 04, 07, 13, 14, 15, and 17 have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in 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:  Cynthia McQueen

Title: Technical Director/Representative

Date: 12/11/12

# ORGANICS

# PCBS

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-01 D  
 Client ID: S-12N-G001-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 07:43  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:01  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	300		ug/kg	132	--	100
CI3-BZ#18	360		ug/kg	132	--	100
CI4-BZ#52	329		ug/kg	132	--	100
CI4-BZ#66	247		ug/kg	132	--	100
CI5-BZ#118	172		ug/kg	132	--	100
CI5-BZ#105	ND		ug/kg	132	--	100
CI6-BZ#138	ND		ug/kg	132	--	100
CI7-BZ#187	ND		ug/kg	132	--	100
CI6-BZ#128	ND		ug/kg	132	--	100
CI7-BZ#180	ND		ug/kg	132	--	100
CI7-BZ#170	ND		ug/kg	132	--	100
CI8-BZ#195	ND		ug/kg	132	--	100
CI9-BZ#206	ND		ug/kg	132	--	100
CI10-BZ#209	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-01 D  
 Client ID: S-12N-G001-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 07:43  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 08:01  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	460		ug/kg	132	--	100
CI4-BZ#44	152		ug/kg	132	--	100
CI5-BZ#101	ND		ug/kg	132	--	100
CI6-BZ#153	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-02 D  
 Client ID: S-12N-G002-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 08:27  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#18	282		ug/kg	130	--	100
CI4-BZ#52	249		ug/kg	130	--	100
CI4-BZ#66	184		ug/kg	130	--	100
CI5-BZ#118	137		ug/kg	130	--	100
CI5-BZ#105	ND		ug/kg	130	--	100
CI6-BZ#138	ND		ug/kg	130	--	100
CI7-BZ#187	ND		ug/kg	130	--	100
CI6-BZ#128	ND		ug/kg	130	--	100
CI7-BZ#180	ND		ug/kg	130	--	100
CI7-BZ#170	ND		ug/kg	130	--	100
CI8-BZ#195	ND		ug/kg	130	--	100
CI9-BZ#206	ND		ug/kg	130	--	100
CI10-BZ#209	ND		ug/kg	130	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	81		30-150
BZ 198	74		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-02 D  
 Client ID: S-12N-G002-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 08:27  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI2-BZ#8	320		ug/kg	130	--	100
CI3-BZ#28	319		ug/kg	130	--	100
CI4-BZ#44	ND		ug/kg	130	--	100
CI5-BZ#101	ND		ug/kg	130	--	100
CI6-BZ#153	ND		ug/kg	130	--	100

DBOB	81	30-150
BZ 198	74	30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-03 D  
 Client ID: S-12N-G003-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:10  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:22  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	382		ug/kg	132	--	100
CI3-BZ#18	275		ug/kg	132	--	100
CI4-BZ#52	333		ug/kg	132	--	100
CI4-BZ#66	272		ug/kg	132	--	100
CI5-BZ#118	191		ug/kg	132	--	100
CI6-BZ#138	ND		ug/kg	132	--	100
CI7-BZ#187	ND		ug/kg	132	--	100
CI6-BZ#128	ND		ug/kg	132	--	100
CI7-BZ#180	ND		ug/kg	132	--	100
CI7-BZ#170	ND		ug/kg	132	--	100
CI8-BZ#195	ND		ug/kg	132	--	100
CI9-BZ#206	ND		ug/kg	132	--	100
CI10-BZ#209	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-03 D  
 Client ID: S-12N-G003-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:10  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:22  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	442		ug/kg	132	--	100
CI4-BZ#44	146		ug/kg	132	--	100
CI5-BZ#101	148		ug/kg	132	--	100
CI6-BZ#153	ND		ug/kg	132	--	100
CI5-BZ#105	ND		ug/kg	132	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-04 D  
 Client ID: S-12N-G004-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:54  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	295		ug/kg	131	--	100
CI3-BZ#18	232		ug/kg	131	--	100
CI4-BZ#52	288		ug/kg	131	--	100
CI4-BZ#66	191		ug/kg	131	--	100
CI5-BZ#118	ND		ug/kg	131	--	100
CI5-BZ#105	ND		ug/kg	131	--	100
CI6-BZ#138	ND		ug/kg	131	--	100
CI7-BZ#187	ND		ug/kg	131	--	100
CI6-BZ#128	ND		ug/kg	131	--	100
CI7-BZ#180	ND		ug/kg	131	--	100
CI7-BZ#170	ND		ug/kg	131	--	100
CI8-BZ#195	ND		ug/kg	131	--	100
CI9-BZ#206	ND		ug/kg	131	--	100
CI10-BZ#209	ND		ug/kg	131	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	83		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-04 D  
 Client ID: S-12N-G004-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 09:54  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	303		ug/kg	131	--	100
CI4-BZ#44	ND		ug/kg	131	--	100
CI5-BZ#101	ND		ug/kg	131	--	100
CI6-BZ#153	ND		ug/kg	131	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	83		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-05  
**Client ID:** S-12N-G005-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 17:55  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 08:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	3.69		ug/kg	1.32	--	1
CI3-BZ#18	3.91		ug/kg	1.32	--	1
CI4-BZ#52	5.95		ug/kg	1.32	--	1
CI4-BZ#66	5.57		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

DBOB 73 30-150  
 BZ 198 81 30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-05  
**Client ID:** S-12N-G005-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 17:55  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 08:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	6.70		ug/kg	1.32	--	1
CI4-BZ#44	2.24		ug/kg	1.32	--	1
CI5-BZ#101	3.88		ug/kg	1.32	--	1
CI5-BZ#118	5.31		ug/kg	1.32	--	1
CI6-BZ#153	3.00		ug/kg	1.32	--	1
CI5-BZ#105	1.62		ug/kg	1.32	--	1
CI6-BZ#138	2.94		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI6-BZ#128	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	73		30-150
BZ 198	81		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-06  
**Client ID:** S-12N-G006-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 18:39  
**Analyst:** JW  
**Percent Solids:** 99%

**Date Collected:** 11/15/12 08:48  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	9.02		ug/kg	1.32	--	1
CI3-BZ#18	6.58		ug/kg	1.32	--	1
CI4-BZ#52	15.6		ug/kg	1.32	--	1
CI4-BZ#44	6.33		ug/kg	1.32	--	1
CI4-BZ#66	17.0		ug/kg	1.32	--	1
CI5-BZ#118	17.9		ug/kg	1.32	--	1
CI6-BZ#138	12.8		ug/kg	1.32	--	1
CI6-BZ#128	3.07		ug/kg	1.32	--	1
CI7-BZ#180	1.94		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	75		30-150
BZ 198	76		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-06  
 Client ID: S-12N-G006-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 18:39  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 08:48  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	16.6		ug/kg	1.32	--	1
CI5-BZ#101	10.2		ug/kg	1.32	--	1
CI6-BZ#153	8.54		ug/kg	1.32	--	1
CI5-BZ#105	5.28		ug/kg	1.32	--	1
CI7-BZ#187	1.53		ug/kg	1.32	--	1

DBOB	75	30-150
BZ 198	76	30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-07 D  
 Client ID: S-12N-G007-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 15:22  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 09:00  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	30.9		ug/kg	6.58	--	5
CI3-BZ#18	24.8		ug/kg	6.58	--	5
CI4-BZ#52	68.8		ug/kg	6.58	--	5
CI4-BZ#44	25.5		ug/kg	6.58	--	5
CI4-BZ#66	67.0		ug/kg	6.58	--	5
CI5-BZ#118	71.0		ug/kg	6.58	--	5
CI6-BZ#128	12.1		ug/kg	6.58	--	5
CI7-BZ#180	7.05		ug/kg	6.58	--	5
CI7-BZ#170	ND		ug/kg	6.58	--	5
CI8-BZ#195	ND		ug/kg	6.58	--	5
CI9-BZ#206	ND		ug/kg	6.58	--	5
CI10-BZ#209	ND		ug/kg	6.58	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-07 D  
 Client ID: S-12N-G007-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 15:22  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 09:00  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	61.0		ug/kg	6.58	--	5
CI5-BZ#101	41.6		ug/kg	6.58	--	5
CI6-BZ#153	35.7		ug/kg	6.58	--	5
CI5-BZ#105	20.0		ug/kg	6.58	--	5
CI6-BZ#138	31.8		ug/kg	6.58	--	5
CI7-BZ#187	6.89		ug/kg	6.58	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-08  
 Client ID: S-12N-G008-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:06  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:11  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	8.30		ug/kg	1.32	--	1
CI3-BZ#18	7.04		ug/kg	1.32	--	1
CI4-BZ#52	14.6		ug/kg	1.32	--	1
CI4-BZ#44	6.00		ug/kg	1.32	--	1
CI4-BZ#66	14.4		ug/kg	1.32	--	1
CI5-BZ#118	15.1		ug/kg	1.32	--	1
CI6-BZ#138	10.2		ug/kg	1.32	--	1
CI6-BZ#128	2.55		ug/kg	1.32	--	1
CI7-BZ#180	1.50		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI9-BZ#206	1.59		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-08  
 Client ID: S-12N-G008-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:06  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:11  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	15.1		ug/kg	1.32	--	1
CI5-BZ#101	9.17		ug/kg	1.32	--	1
CI6-BZ#153	7.42		ug/kg	1.32	--	1
CI5-BZ#105	4.45		ug/kg	1.32	--	1
CI7-BZ#187	1.38		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	77		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-09  
 Client ID: S-12N-G009-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 20:50  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	6.88		ug/kg	1.32	--	1
CI3-BZ#18	6.46		ug/kg	1.32	--	1
CI4-BZ#52	10.6		ug/kg	1.32	--	1
CI4-BZ#44	4.14		ug/kg	1.32	--	1
CI4-BZ#66	10.4		ug/kg	1.32	--	1
CI5-BZ#118	10.6		ug/kg	1.32	--	1
CI6-BZ#138	7.30		ug/kg	1.32	--	1
CI6-BZ#128	1.87		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-09  
**Client ID:** S-12N-G009-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 20:50  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 13:14  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	12.7		ug/kg	1.32	--	1
CI5-BZ#101	7.05		ug/kg	1.32	--	1
CI6-BZ#153	5.69		ug/kg	1.32	--	1
CI5-BZ#105	3.45		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-10  
 Client ID: S-12N-G009-0.0-0.1-REP  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 21:34  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	13.2		ug/kg	1.31	--	1
CI3-BZ#18	11.3		ug/kg	1.31	--	1
CI4-BZ#52	21.6		ug/kg	1.31	--	1
CI4-BZ#44	8.39		ug/kg	1.31	--	1
CI4-BZ#66	21.1		ug/kg	1.31	--	1
CI5-BZ#118	20.7		ug/kg	1.31	--	1
CI6-BZ#138	14.3		ug/kg	1.31	--	1
CI6-BZ#128	3.69		ug/kg	1.31	--	1
CI7-BZ#180	1.97		ug/kg	1.31	--	1
CI7-BZ#170	1.56		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	79		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-10  
 Client ID: S-12N-G009-0.0-0.1-REP  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 21:34  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:20  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 13:14  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	19.9		ug/kg	1.31	--	1
CI5-BZ#101	11.9		ug/kg	1.31	--	1
CI6-BZ#153	9.38		ug/kg	1.31	--	1
CI5-BZ#105	6.03		ug/kg	1.31	--	1
CI7-BZ#187	2.08		ug/kg	1.31	--	1

DBOB	79	30-150
BZ 198	79	30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-11  
**Client ID:** S-12N-G010-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 23:01  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:42  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	6.66		ug/kg	1.31	--	1
CI3-BZ#18	5.98		ug/kg	1.31	--	1
CI4-BZ#52	8.42		ug/kg	1.31	--	1
CI4-BZ#44	3.13		ug/kg	1.31	--	1
CI4-BZ#66	7.66		ug/kg	1.31	--	1
CI5-BZ#118	7.88		ug/kg	1.31	--	1
CI6-BZ#138	5.09		ug/kg	1.31	--	1
CI6-BZ#128	1.31		ug/kg	1.31	--	1
CI7-BZ#180	ND		ug/kg	1.31	--	1
CI7-BZ#170	ND		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-11  
**Client ID:** S-12N-G010-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 23:01  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:42  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	9.72		ug/kg	1.31	--	1
CI5-BZ#101	5.23		ug/kg	1.31	--	1
CI6-BZ#153	4.10		ug/kg	1.31	--	1
CI5-BZ#105	2.62		ug/kg	1.31	--	1
CI7-BZ#187	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-12  
 Client ID: S-12N-G011-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 23:45  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 09:52  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	10.9		ug/kg	1.31	--	1
CI3-BZ#18	10.8		ug/kg	1.31	--	1
CI4-BZ#52	13.2		ug/kg	1.31	--	1
CI4-BZ#44	4.74		ug/kg	1.31	--	1
CI4-BZ#66	11.3		ug/kg	1.31	--	1
CI5-BZ#118	11.5		ug/kg	1.31	--	1
CI6-BZ#138	6.98		ug/kg	1.31	--	1
CI6-BZ#128	1.87		ug/kg	1.31	--	1
CI7-BZ#180	ND		ug/kg	1.31	--	1
CI7-BZ#170	ND		ug/kg	1.31	--	1
CI8-BZ#195	ND		ug/kg	1.31	--	1
CI10-BZ#209	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-12  
**Client ID:** S-12N-G011-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/08/12 23:45  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 09:52  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	15.5		ug/kg	1.31	--	1
CI5-BZ#101	7.07		ug/kg	1.31	--	1
CI6-BZ#153	5.24		ug/kg	1.31	--	1
CI5-BZ#105	3.50		ug/kg	1.31	--	1
CI7-BZ#187	ND		ug/kg	1.31	--	1
CI9-BZ#206	ND		ug/kg	1.31	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-13 D  
 Client ID: S-12N-G012-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:05  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:04  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	94.5		ug/kg	6.67	--	5
CI3-BZ#18	63.1		ug/kg	6.67	--	5
CI4-BZ#52	93.6		ug/kg	6.67	--	5
CI4-BZ#44	32.3		ug/kg	6.67	--	5
CI4-BZ#66	71.5		ug/kg	6.67	--	5
CI5-BZ#118	52.3		ug/kg	6.67	--	5
CI6-BZ#138	31.6		ug/kg	6.67	--	5
CI6-BZ#128	8.33		ug/kg	6.67	--	5
CI7-BZ#170	ND		ug/kg	6.67	--	5
CI8-BZ#195	ND		ug/kg	6.67	--	5
CI9-BZ#206	ND		ug/kg	6.67	--	5
CI10-BZ#209	ND		ug/kg	6.67	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		30-150
BZ 198	71		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-13 D  
 Client ID: S-12N-G012-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:05  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:04  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	110		ug/kg	6.67	--	5
CI5-BZ#101	33.4		ug/kg	6.67	--	5
CI6-BZ#153	23.3		ug/kg	6.67	--	5
CI5-BZ#105	16.5		ug/kg	6.67	--	5
CI7-BZ#187	ND		ug/kg	6.67	--	5
CI7-BZ#180	ND		ug/kg	6.67	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		30-150
BZ 198	71		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-14 D  
 Client ID: S-12N-G013-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:49  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	162		ug/kg	13.3	--	10
CI3-BZ#18	125		ug/kg	13.3	--	10
CI4-BZ#52	118		ug/kg	13.3	--	10
CI4-BZ#66	111		ug/kg	13.3	--	10
CI5-BZ#118	91.5		ug/kg	13.3	--	10
CI6-BZ#138	47.6		ug/kg	13.3	--	10
CI7-BZ#187	ND		ug/kg	13.3	--	10
CI6-BZ#128	ND		ug/kg	13.3	--	10
CI7-BZ#180	ND		ug/kg	13.3	--	10
CI7-BZ#170	ND		ug/kg	13.3	--	10
CI8-BZ#195	ND		ug/kg	13.3	--	10
CI9-BZ#206	ND		ug/kg	13.3	--	10
CI10-BZ#209	ND		ug/kg	13.3	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-14 D  
 Client ID: S-12N-G013-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 16:49  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:15  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	204		ug/kg	13.3	--	10
CI4-BZ#44	45.3		ug/kg	13.3	--	10
CI5-BZ#101	56.9		ug/kg	13.3	--	10
CI6-BZ#153	35.6		ug/kg	13.3	--	10
CI5-BZ#105	27.6		ug/kg	13.3	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-15 D  
 Client ID: S-12N-G014-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 17:33  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	20.7		ug/kg	2.65	--	2
CI3-BZ#18	18.0		ug/kg	2.65	--	2
CI4-BZ#52	24.2		ug/kg	2.65	--	2
CI4-BZ#44	9.99		ug/kg	2.65	--	2
CI4-BZ#66	24.2		ug/kg	2.65	--	2
CI5-BZ#118	22.6		ug/kg	2.65	--	2
CI6-BZ#138	14.4		ug/kg	2.65	--	2
CI6-BZ#128	3.75		ug/kg	2.65	--	2
CI7-BZ#180	ND		ug/kg	2.65	--	2
CI7-BZ#170	ND		ug/kg	2.65	--	2
CI8-BZ#195	ND		ug/kg	2.65	--	2
CI9-BZ#206	ND		ug/kg	2.65	--	2
CI10-BZ#209	ND		ug/kg	2.65	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	83		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-15 D  
 Client ID: S-12N-G014-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 17:33  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:30  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	31.4		ug/kg	2.65	--	2
CI5-BZ#101	13.8		ug/kg	2.65	--	2
CI6-BZ#153	10.6		ug/kg	2.65	--	2
CI5-BZ#105	6.66		ug/kg	2.65	--	2
CI7-BZ#187	ND		ug/kg	2.65	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		30-150
BZ 198	83		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-16  
**Client ID:** S-12N-G015-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/09/12 02:40  
**Analyst:** JW  
**Percent Solids:** 100%

**Date Collected:** 11/15/12 10:45  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 12/05/12 14:53  
**Cleanup Method1:** EPA 3630  
**Cleanup Date1:** 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	4.71		ug/kg	1.32	--	1
CI3-BZ#18	5.78		ug/kg	1.32	--	1
CI4-BZ#52	7.85		ug/kg	1.32	--	1
CI4-BZ#44	3.25		ug/kg	1.32	--	1
CI4-BZ#66	8.63		ug/kg	1.32	--	1
CI5-BZ#118	7.65		ug/kg	1.32	--	1
CI6-BZ#138	5.54		ug/kg	1.32	--	1
CI6-BZ#128	1.40		ug/kg	1.32	--	1
CI7-BZ#180	ND		ug/kg	1.32	--	1
CI7-BZ#170	ND		ug/kg	1.32	--	1
CI8-BZ#195	ND		ug/kg	1.32	--	1
CI10-BZ#209	ND		ug/kg	1.32	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	86		30-150
BZ 198	85		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-16  
 Client ID: S-12N-G015-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/09/12 02:40  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:45  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	8.68		ug/kg	1.32	--	1
CI5-BZ#101	5.14		ug/kg	1.32	--	1
CI6-BZ#153	4.26		ug/kg	1.32	--	1
CI5-BZ#105	2.49		ug/kg	1.32	--	1
CI7-BZ#187	ND		ug/kg	1.32	--	1
CI9-BZ#206	ND		ug/kg	1.32	--	1
DBOB	86			30-150		
BZ 198	85			30-150		

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-17 D  
 Client ID: S-12N-G016-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 18:17  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:58  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	95.9		ug/kg	6.63	--	5
CI3-BZ#18	88.0		ug/kg	6.63	--	5
CI4-BZ#52	102		ug/kg	6.63	--	5
CI4-BZ#44	37.3		ug/kg	6.63	--	5
CI4-BZ#66	94.9		ug/kg	6.63	--	5
CI5-BZ#118	84.8		ug/kg	6.63	--	5
CI6-BZ#138	48.8		ug/kg	6.63	--	5
CI6-BZ#128	12.8		ug/kg	6.63	--	5
CI7-BZ#180	6.72		ug/kg	6.63	--	5
CI7-BZ#170	ND		ug/kg	6.63	--	5
CI8-BZ#195	ND		ug/kg	6.63	--	5
CI9-BZ#206	ND		ug/kg	6.63	--	5
CI10-BZ#209	ND		ug/kg	6.63	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

Lab ID: L1221058-17 D  
 Client ID: S-12N-G016-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/10/12 18:17  
 Analyst: JW  
 Percent Solids: 100%

Date Collected: 11/15/12 10:58  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
CI3-BZ#28	130		ug/kg	6.63	--	5
CI5-BZ#101	49.1		ug/kg	6.63	--	5
CI6-BZ#153	32.8		ug/kg	6.63	--	5
CI5-BZ#105	24.6		ug/kg	6.63	--	5
CI7-BZ#187	6.87		ug/kg	6.63	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		30-150
BZ 198	79		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-18 D  
 Client ID: S-12N-G017-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 13:33  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 11:12  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	485		ug/kg	133	--	100
CI3-BZ#18	399		ug/kg	133	--	100
CI4-BZ#52	392		ug/kg	133	--	100
CI4-BZ#66	360		ug/kg	133	--	100
CI5-BZ#118	280		ug/kg	133	--	100
CI6-BZ#138	152		ug/kg	133	--	100
CI7-BZ#187	ND		ug/kg	133	--	100
CI6-BZ#128	ND		ug/kg	133	--	100
CI7-BZ#180	ND		ug/kg	133	--	100
CI7-BZ#170	ND		ug/kg	133	--	100
CI8-BZ#195	ND		ug/kg	133	--	100
CI9-BZ#206	ND		ug/kg	133	--	100
CI10-BZ#209	ND		ug/kg	133	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	73		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-18 D  
 Client ID: S-12N-G017-0.0-0.1  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/08/12 13:33  
 Analyst: JW  
 Percent Solids: 99%

Date Collected: 11/15/12 11:12  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 12/05/12 14:53  
 Cleanup Method1: EPA 3630  
 Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI3-BZ#28	672		ug/kg	133	--	100
CI4-BZ#44	169		ug/kg	133	--	100
CI5-BZ#101	202		ug/kg	133	--	100
CI6-BZ#153	ND		ug/kg	133	--	100
CI5-BZ#105	ND		ug/kg	133	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		30-150
BZ 198	73		30-150



**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

Lab ID: L1221058-19  
 Client ID: EB-111512-01  
 Sample Location: NEW BEDFORD, MA  
 Matrix: Sediment  
 Analytical Method: 1,8082A  
 Analytical Date: 12/06/12 01:37  
 Analyst: JW

Date Collected: 11/15/12 11:35  
 Date Received: 11/16/12  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB Congeners (NOAA List) - Mansfield Lab</b>						
CI2-BZ#8	ND		ug/l	0.00500	--	1
CI3-BZ#18	ND		ug/l	0.00500	--	1
CI3-BZ#28	ND		ug/l	0.00500	--	1
CI4-BZ#52	ND		ug/l	0.00500	--	1
CI4-BZ#44	ND		ug/l	0.00500	--	1
CI4-BZ#66	ND		ug/l	0.00500	--	1
CI5-BZ#101	ND		ug/l	0.00500	--	1
CI5-BZ#118	ND		ug/l	0.00500	--	1
CI5-BZ#105	ND		ug/l	0.00500	--	1
CI6-BZ#138	ND		ug/l	0.00500	--	1
CI7-BZ#187	ND		ug/l	0.00500	--	1
CI6-BZ#128	ND		ug/l	0.00500	--	1
CI7-BZ#180	ND		ug/l	0.00500	--	1
CI7-BZ#170	ND		ug/l	0.00500	--	1
CI8-BZ#195	ND		ug/l	0.00500	--	1
CI9-BZ#206	ND		ug/l	0.00500	--	1
CI10-BZ#209	ND		ug/l	0.00500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	88		30-150
BZ 198	82		30-150

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**SAMPLE RESULTS**

**Lab ID:** L1221058-19  
**Client ID:** EB-111512-01  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment  
**Analytical Method:** 1,8082A  
**Analytical Date:** 12/06/12 01:37  
**Analyst:** JW

**Date Collected:** 11/15/12 11:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl6-BZ#153	ND		ug/l	0.00500	--	1
DBOB	88		30-150			
BZ 198	82		30-150			

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8082A  
**Analytical Date:** 12/05/12 11:52  
**Analyst:** JW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 19 Batch: WG575133-1					
Cl2-BZ#8	ND		ug/l	0.00500	--
Cl3-BZ#18	ND		ug/l	0.00500	--
Cl3-BZ#28	ND		ug/l	0.00500	--
Cl4-BZ#52	ND		ug/l	0.00500	--
Cl4-BZ#44	ND		ug/l	0.00500	--
Cl4-BZ#66	ND		ug/l	0.00500	--
Cl5-BZ#101	ND		ug/l	0.00500	--
Cl5-BZ#118	ND		ug/l	0.00500	--
Cl5-BZ#105	ND		ug/l	0.00500	--
Cl6-BZ#138	ND		ug/l	0.00500	--
Cl7-BZ#187	ND		ug/l	0.00500	--
Cl6-BZ#128	ND		ug/l	0.00500	--
Cl7-BZ#180	ND		ug/l	0.00500	--
Cl7-BZ#170	ND		ug/l	0.00500	--
Cl8-BZ#195	ND		ug/l	0.00500	--
Cl9-BZ#206	ND		ug/l	0.00500	--
Cl10-BZ#209	ND		ug/l	0.00500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	92		30-150
BZ 198	87		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 12/05/12 11:52  
Analyst: JW

Extraction Method: EPA 3510C  
Extraction Date: 11/21/12 09:45

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 19 Batch: WG575133-1					
C16-BZ#153	ND		ug/l	0.00500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	92		30-150
BZ 198	87		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 12/07/12 14:57  
Analyst: JW

Extraction Method: EPA 3540C  
Extraction Date: 12/05/12 13:14  
Cleanup Method1: EPA 3630  
Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-18 Batch: WG577504-1					
Cl2-BZ#8	ND		ug/kg	1.33	--
Cl3-BZ#18	ND		ug/kg	1.33	--
Cl3-BZ#28	ND		ug/kg	1.33	--
Cl4-BZ#52	ND		ug/kg	1.33	--
Cl4-BZ#44	ND		ug/kg	1.33	--
Cl4-BZ#66	ND		ug/kg	1.33	--
Cl5-BZ#101	ND		ug/kg	1.33	--
Cl5-BZ#118	ND		ug/kg	1.33	--
Cl5-BZ#105	ND		ug/kg	1.33	--
Cl6-BZ#138	ND		ug/kg	1.33	--
Cl7-BZ#187	ND		ug/kg	1.33	--
Cl6-BZ#128	ND		ug/kg	1.33	--
Cl7-BZ#180	ND		ug/kg	1.33	--
Cl7-BZ#170	ND		ug/kg	1.33	--
Cl8-BZ#195	ND		ug/kg	1.33	--
Cl9-BZ#206	ND		ug/kg	1.33	--
Cl10-BZ#209	ND		ug/kg	1.33	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	82		30-150
BZ 198	99		30-150

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 12/07/12 14:57  
Analyst: JW

Extraction Method: EPA 3540C  
Extraction Date: 12/05/12 13:14  
Cleanup Method1: EPA 3630  
Cleanup Date1: 12/07/12

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-18 Batch: WG577504-1					
C16-BZ#153	ND		ug/kg	1.33	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	82		30-150
BZ 198	99		30-150

## Matrix Spike Analysis

### Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 QC Batch ID: WG577504-4 WG577504-5 QC Sample: L1221058-15 Client ID: S-12N-G014-0.0-0.1												
Cl2-BZ#8	20.7	1660	1130	67		1160	70		40-140	3		30
Cl3-BZ#18	18.0	1660	1190	71		1210	73		40-140	2		30
Cl4-BZ#52	24.2	1660	1180	70		1220	73		40-140	3		30
Cl4-BZ#66	24.2	1660	1280	76		1310	79		40-140	2		30
Cl5-BZ#118	22.6	1660	1240	74		1300	78		40-140	5		30
Cl5-BZ#105	ND	1660	1270	76		1320	80		40-140	4		30
Cl6-BZ#138	14.4	1660	1250	75		1290	78		40-140	3		30
Cl6-BZ#128	3.75	1660	1230	74		1270	78		40-140	3		30
Cl7-BZ#180	ND	1660	1280	77		1300	80		40-140	2		30
Cl7-BZ#170	ND	1660	1210	73		1260	77		40-140	4		30
Cl8-BZ#195	ND	1660	1170	71		1210	74		40-140	3		30
Cl9-BZ#206	ND	1660	1300	79		1330	82		40-140	2		30
Cl10-BZ#209	ND	1660	1080	65		1110	68		40-140	3		30
Cl3-BZ#28	31.4	1660	1130	66		1170	70		40-140	3		30
Cl4-BZ#44	ND	1660	1060	64		1080	66		40-140	2		30
Cl5-BZ#101	13.8	1660	1050	63		1080	65		40-140	3		30
Cl6-BZ#153	10.6	1660	994	59		999	61		40-140	1		30
Cl7-BZ#187	ND	1660	1000	60		1020	63		40-140	2		30

### Matrix Spike Analysis Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18    QC Batch ID: WG577504-4    WG577504-5    QC Sample: L1221058-15    Client ID: S-12N-G014-0.0-0.1

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
DBOB	69		73		30-150
BZ 198	79		80		30-150



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								
CI2-BZ#8	26	Q	28	Q	40-140	8		30
CI3-BZ#18	87		103		40-140	17		30
CI3-BZ#28	87		98		40-140	12		30
CI4-BZ#52	86		94		40-140	8		30
CI4-BZ#44	91		97		40-140	7		30
CI4-BZ#66	91		96		40-140	5		30
CI5-BZ#101	92		93		40-140	1		30
CI5-BZ#118	94		95		40-140	1		30
CI5-BZ#105	89		91		40-140	3		30
CI6-BZ#138	86		91		40-140	6		30
CI7-BZ#187	84		83		40-140	2		30
CI6-BZ#128	85		86		40-140	2		30
CI7-BZ#180	83		81		40-140	2		30
CI7-BZ#170	82		80		40-140	2		30
CI8-BZ#195	84		81		40-140	3		30
CI9-BZ#206	78		73		40-140	6		30
CI10-BZ#209	74		69		40-140	8		30

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	83		84		30-150
BZ 198	86		84		30-150

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 19 Batch: WG575133-2 WG575133-3					
Cl6-BZ#153	72		78		40-140

DBOB	83		84		30-150
BZ 198	86		84		30-150

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NEW BEDFORD OU3 CAP

Lab Number: L1221058

Project Number: TO-0010-07

Report Date: 12/11/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3								
CI2-BZ#8	80		96		40-140	18		30
CI3-BZ#18	88		101		40-140	14		30
CI3-BZ#28	88		97		40-140	10		30
CI4-BZ#52	94		96		40-140	2		30
CI4-BZ#44	90		96		40-140	6		30
CI4-BZ#66	90		94		40-140	4		30
CI5-BZ#101	91		95		40-140	4		30
CI5-BZ#118	94		96		40-140	2		30
CI5-BZ#105	88		89		40-140	1		30
CI6-BZ#138	92		94		40-140	2		30
CI7-BZ#187	84		88		40-140	5		30
CI6-BZ#128	87		91		40-140	4		30
CI7-BZ#180	86		90		40-140	5		30
CI7-BZ#170	84		86		40-140	2		30
CI8-BZ#195	81		83		40-140	2		30
CI9-BZ#206	92		95		40-140	3		30
CI10-BZ#209	85		86		40-140	1		30

### Lab Control Sample Analysis

#### Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP

**Lab Number:** L1221058

**Project Number:** TO-0010-07

**Report Date:** 12/11/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	77		85		30-150
BZ 198	89		92		30-150

PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-18 Batch: WG577504-2 WG577504-3

Cl6-BZ#153	74		76		40-140	3		30
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Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	77		85		30-150
BZ 198	89		92		30-150



# INORGANICS & MISCELLANEOUS

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-01  
**Client ID:** S-12N-G001-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:01  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	65.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-02  
**Client ID:** S-12N-G002-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.2		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-03  
**Client ID:** S-12N-G003-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:22  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB





**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-04  
**Client ID:** S-12N-G004-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:30  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	72.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-05  
**Client ID:** S-12N-G005-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:35  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	83.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-06  
**Client ID:** S-12N-G006-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 08:48  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.4		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	75.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-07  
**Client ID:** S-12N-G007-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:00  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.2		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-08  
**Client ID:** S-12N-G008-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:11  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	77.4		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-09  
**Client ID:** S-12N-G009-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	74.0		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-10  
**Client ID:** S-12N-G009-0.0-0.1-REP  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:20  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	70.0		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-11  
**Client ID:** S-12N-G010-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:42  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	100		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	80.6		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB





**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-12  
**Client ID:** S-12N-G011-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 09:52  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	100		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	76.2		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-13  
**Client ID:** S-12N-G012-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:04  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	72.4		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-14  
**Client ID:** S-12N-G013-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:15  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.6		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	69.5		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-15  
**Client ID:** S-12N-G014-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:30  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	73.1		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-16  
**Client ID:** S-12N-G015-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:45  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.8		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	74.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-17  
**Client ID:** S-12N-G016-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 10:58  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.7		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	62.7		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**SAMPLE RESULTS**

**Lab ID:** L1221058-18  
**Client ID:** S-12N-G017-0.0-0.1  
**Sample Location:** NEW BEDFORD, MA  
**Matrix:** Sediment

**Date Collected:** 11/15/12 11:12  
**Date Received:** 11/16/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	99.0		%	0.100	--	1	-	12/06/12 09:30	30,2540G	KB
Solids, Total (Pre-Dried)	48.9		%	0.100	NA	1	-	11/27/12 14:03	30,2540G	KB



### Lab Duplicate Analysis Batch Quality Control

**Project Name:** NEW BEDFORD OU3 CAP

**Project Number:** TO-0010-07

**Lab Number:** L1221058

**Report Date:** 12/11/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-18 QC Batch ID: WG577732-1 QC Sample: L1221058-15 Client ID: S-12N-G014-0.0-0.1						
Solids, Total	99.8	99.8	%	0		10



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

### 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  
 B Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1221058-01A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-02A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-03A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-04A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-05A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-06A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-07A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-08A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-09A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-10A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-11A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-12A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-13A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-14A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-15A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-MS/MSD(),A2-TS-PREDRIED(7)
L1221058-15B	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-MS/MSD(),A2-TS-PREDRIED(7)
L1221058-16A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)

**Project Name:** NEW BEDFORD OU3 CAP**Lab Number:** L1221058**Project Number:** TO-0010-07**Report Date:** 12/11/12**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1221058-17A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-18A	Amber 250ml unpreserved	A	N/A	2.9	Y	Absent	A2-TS(7),A2-PCBCONG-8082-NOAA(14),A2-TS-PREDRIED(7)
L1221058-19A	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-PCBCONG-8082-NOAA(7)
L1221058-19B	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-PCBCONG-8082-NOAA(7)

**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

## 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

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 five times (5x) 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.
- 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.
- 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 RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report



**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

**Data Qualifiers**

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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

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**Project Name:** NEW BEDFORD OU3 CAP  
**Project Number:** TO-0010-07

**Lab Number:** L1221058  
**Report Date:** 12/11/12

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

## 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.



## Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### Florida Department of Health Certificate/Lab ID: E87814. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

### Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

### New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

### New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Atmospheric Organic Parameters* (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

*Biological Tissue* (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

*Air & Emissions* (EPA TO-15, TO-10A.)

**Pennsylvania** Certificate/Lab ID: 68-02089 **NELAP Accredited**

*Non-Potable Water* (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Virginia Division of Consolidated Laboratory Services** Certificate/Lab ID:460194. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

**U.S. Army Corps of Engineers**

**Department of Defense, L-A-B** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

*Air & Emissions* (EPA TO-15.)

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **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, 2-Methylnaphthalene, 1-Methylnaphthalene.





MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 2

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193 MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information: Client: WOODS HOLE GROUP Address: 81 Technology Park Dr East Falmouth, MA 02536 Phone: 508-540-8080 Fax: 508-540-1001 Email: DSTUART@WHGRP.COM

Project Information

Project Name: New Bedford OU3 Cap Project Location: New Bedford, MA Project #: TU-0010-07 Project Manager: Dave Walsh ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved) Date Due: Time:

Report Information - Data Deliverables Billing Information

Date Rec'd in Lab: ALPHA Job #: L1221058 FAX EMAIL Add'l Deliverables

Regulatory Requirements/Report Limits

State (Fed Program) Criteria

Other Project Specific Requirements/Comments/Detection Limits:

Homogenize before analysis Project-specific EDD

PLEASE NOTE MS/MSD (at unit cost) will be omitted unless you check here:

Table with columns: ALPHA Lab ID (Lab Use Only), Sample ID, Collection Date, Collection Time, Sample Matrix, Sampler's Initials, Analysis, and Sample Specific Comments. Contains 10 rows of sample data.

Container Type A Preservative A

Relinquished By: Dad Stuart Date/Time: 11/16/12 0915 Received By: MCM Date/Time: 11/16/12 1013

SAMPLE HANDLING: Filtration, Preservation, etc. TOTAL # BOTTLES: 1

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved.



**MANSFIELD CHAIN OF CUSTODY**

PAGE 2 OF 2

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

**Client Information**

Client: WOODS Hole Group  
Address: 81 Technology Park Dr  
East Falmouth, MA 02536  
Phone: 508-540-8080  
Fax: 508-540-1001  
Email: DSTUART@WHGRP.COM

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Homogenize before analysis

**PLEASE NOTE** Project-specific EDD  
MS/MSD (at unit cost) will be omitted unless you check here:

**Project Information**

Project Name: New Bedford OU3 Cap  
Project Location: New Bedford, MA  
Project #: TO-0010-07  
Project Manager: Dave Walsh  
ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)  
Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab:

**Report Information - Data Deliverables**

FAX  EMAIL  
 ADEx  Add'l Deliverables

ALPHA Job #: L1221058

**Billing Information**

Same as Client info PO #:

**Regulatory Requirements/Report Limits**

State Fed Program Criteria

ANALYSIS  
NOAA-18 PCB Compens

**SAMPLE HANDLING**

Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
Preservation  
 Lab to do  
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	X												Sample Specific Comments				
		Date	Time																			
- 11	S-12N-G010-0.0-0.1	11/15/12	0942	SE	DS	X													OU08-12	1		
- 12	S-12N-G011-0.0-0.1		0952			X													OU09-12	1		
- 13	S-12N-G012-0.0-0.1		1004			X															OU22-12	1
- 14	S-12N-G013-0.0-0.1		1015			X															OU13-12	1
- 15	S-12N-G014-0.0-0.1		1030			X															OU12-12	1
	S-12N-G014-0.0-0.1-MSMSD		1030			X															OU12-12 MSMSD	1
- 16	S-12N-G015-0.0-0.1		1045			X															OU25-12	1
- 17	S-12N-G016-0.0-0.1		1058			X															OU19-12	1
- 18	S-12N-G017-0.0-0.1		1112			X															OU16-12	1
- 19	EB-111512-01		1135				SW	DS	X												Equipment Blank	2

Container Type X  
Preservative A

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. Delivery Order 0010-07 May 2013

Relinquished By:	Date/Time	Received By:	Date/Time
<u>Dave Walsh</u>	<u>11/10/12 0915</u>	<u>HCA</u>	<u>11/14/12 0915</u>
<u>MSM</u>	<u>11/16/12 1013</u>	<u>[Signature]</u>	<u>11/16/12 1013</u>

**REPOSITORY TARGET SHEET**

US EPA New England  
Superfund Document Management System /  
RCRA Document Management System  
**Native Files Target Sheet**

SDMS Document ID #: 535590

Site Name: New Bedford

File Break: 3.7

File Type(s) Attached (examples: Excel file or .jpg):

.xlsx

Document Type this Target Sheet Represents:

- Map       Photograph       Graph/Chart  
 Video       Compact Disc       Other (Specify  
below) .xlsx

Description or Comments:

**To view the attached files, open the "Attachment Panel"  
by clicking on the paper clip -  - at the bottom left of this window.**

**\*\* Please note to view attachments the software corresponding with  
the specified file type is necessary. \*\***

For any additional assistance please contact the EPA New England Office of  
Site Remediation and Restoration Records and Information Center-  
Telephone (617) 918 1440

**New Bedford Harbor  
OU-1 Monitoring 2012**

Lab Project #: L1221058

Lab: Alpha Analytical

Date Sampled: 11/15/12

Analysis: 18 NOAA PCB Congeners by GC/ECD

**18 NOAA PCB Congeners Tier I+ Data Validation Checklist**

No. Samples: 17 + 1FD + 1EB  
Matrix: Sediment Cores

<b>Data Element</b>	<b>Preservation &amp; HT</b>	<b>Surrogates %R 30-150%</b>	<b>LCS/LCSD %R 40-140% RPD ≤ 30%</b>	<b>MS/MSD %R 40-140% RPD ≤ 30%</b>	<b>FD RPD ≤ 30% SW RPD ≤ 50% SED</b>	<b>MB &lt; RL or &lt; 5x Conc. in sample</b>	<b>RL meets QAPP req. for matrix?</b>	<b>Issues with Qualifiers?</b>	<b>Other</b>
<b>Yes</b>	√	√	√	√		√	√	√	NA
<b>No</b>					Estimate (J) 10 results in FD pair			Data qualified "D" by the lab if samples analyzed DF > 1	

**Did the Laboratory Narrative contain any issues which may affect data quality? Yes; however, all issues were reported in the summary data. Were the %solids acceptable (>30%)? Yes, all samples had > 99% solids after air-drying. Prior to air-drying, % solids were 48-84%.**

*The data package consisted of a laboratory narrative, data sheets for samples, Method Blanks (MB), laboratory control samples (LCS), Matrix Spike/Matrix Spike Duplicates (MS/MSD), and the executed chain-of-custody. Summary information for initial and continuing calibrations were not present nor were raw data for samples and quality control (QC) reported. This Tier I+ review assumed that initial calibrations and qualitative and quantitative determination of the 18 NOAA target Congeners were acceptable unless an issue was raised in the laboratory narrative. This review also assumed that the highest value for the two GC columns used was reported for the sample result, as required by the QAPP, unless noted by the laboratory. Field QC (e.g., Equipment Blanks) are reviewed to determine their impact on the usability of associated sample data; however, validation of these field QC samples will not be performed since these data are not considered reportable results in the project database (e.g., review of associated QC will not be performed).*

**Comments:**

The CAP sediment core aliquots were received at Alpha on November 16, 2012 intact and within  $4 \pm 2^\circ\text{C}$ . The samples were frozen immediately and then removed from storage on November 27, 2012 and analyzed for percent solids content and based on these results, all samples were then air-dried and returned to frozen storage on November 29, 2012. On December 5, 2012 the samples were again removed from storage, extracted for PCBs, and air-dried percent solids determination was performed. COC seals were absent from coolers; however, these were hand delivered from the site to the lab.

*HT: Air-dried samples were extracted by 12/5/12 and extracts were analyzed by 12/10/12 - HT met - No action required.*

Date: 1/28/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Alpha Analytical

18 NOAA PCB Congeners Tier I+ Data Validation Checklist

Blank Action: Blanks Reviewed: Method Blank: WG577504-1  
EBs: EB-111512-01

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
WG577504-1	None	-	-	No Blank Action required	
EB-111512-01	None	-	-	No Blank Action required	

*Surrogates*: Several samples were analyzed at dilutions to report Congeners within accurate calibration range. Lab spiked surrogates at a higher level in these samples so that recoveries could be monitored. All surrogate recoveries were within criteria in all samples - No Action required.

*LCS/LCSD*: WG577504-2/-3. LCS/LCSD %Rec and LCS/LCSD RPD were acceptable for LCS; therefore, no action required.

*MS/MSD*: MS/MSD analyses performed on sample S-12N-G014-0.0-0.1. MS/MSD %Rec and MS/MSD precision were acceptable for all 18 NOAA Congeners; therefore, no action required.

Ten samples were analyzed at dilutions (DF = 2 to DF= 100) to report all congeners within the instrument calibration range. For these samples the RLs were increased as a consequence of the dilutions made (RLs were acceptable for DF=2 analyses and 1.3-27 times higher, for DF =5 to DF=100, than 5 µg/Kg PQL given in QAPP Worksheet #15). For several samples analyzed with dilution, the sum of the detected congener results exceeded the Project Action Limit (PAL) for Total PCBs given in Worksheet #15.

*Qualifiers*: All data with DF > 1 were reported with "D" qualifiers. As instructed by Battelle, these "D" qualifiers were not removed during the DV process. There were no "J" or "E" qualified data reported.

*Narrative*: the narrative did not raise any issues not already addressed (issue with LCS/LCSD associated with EB analysis raised but not evaluated herein).

Date: 1/28/13

Data Reviewer: Nancy C. Rothman, Ph.D.

**New Bedford Harbor  
OU-1 Monitoring 2012**

Lab Project #: L1221058

Lab: Alpha Analytical

**18 NOAA PCB Congeners Tier I+ Data Validation Checklist**

FDs: S-12N-G009-0.0-0.1 / S-12N-G009-0.0-0.1-REP. A comparison of results in this FD pair is shown below

Field Duplicate Evaluation\_ Sample IDs:

Sample = S-12N-G009-0.0-0.1

FD = S-12N-G009-0.0-0.1-REP

Analyte Name	DF= 1	Sample	Sample Result	FD	FD Result	RPD	Action
	RL (µg/Kg)						
2,4'-Dichlorobiphenyl	1.32	6.88	> 2 x RL	13.2	> 2 x RL	62.9	<b>J Both</b>
2,2',5-Trichlorobiphenyl	1.32	6.46	> 2 x RL	11.3	> 2 x RL	54.5	<b>J Both</b>
2,4,4'-Trichlorobiphenyl	1.32	12.7	> 2 x RL	19.9	> 2 x RL	44.2	None
2,2',3,5'-Tetrachlorobiphenyl	1.32	4.14	> 2 x RL	8.39	> 2 x RL	67.8	<b>J Both</b>
2,2',5,5'-Tetrachlorobiphenyl	1.32	10.6	> 2 x RL	21.6	> 2 x RL	68.3	<b>J Both</b>
2,3',4,4'-Tetrachlorobiphenyl	1.32	10.4	> 2 x RL	21.1	> 2 x RL	67.9	<b>J Both</b>
2,2',4,5,5'-Pentachlorobiphenyl	1.32	7.05	> 2 x RL	11.9	> 2 x RL	51.2	<b>J Both</b>
2,3,3',4,4'-Pentachlorobiphenyl	1.32	3.45	> 2 x RL	6.03	> 2 x RL	54.4	<b>J Both</b>
2,3',4,4',5-Pentachlorobiphenyl	1.32	10.6	> 2 x RL	20.7	> 2 x RL	64.5	<b>J Both</b>
2,2',3,3',4,4'-Hexachlorobiphenyl	1.32	1.87	< 2 x RL	3.69	> 2 x RL	65.5	<b>J Both</b>
2,2',3,4,4',5'-Hexachlorobiphenyl	1.32	7.3	> 2 x RL	14.3	> 2 x RL	64.8	<b>J Both</b>
2,2',4,4',5,5'-Hexachlorobiphenyl	1.32	5.69	> 2 x RL	9.38	> 2 x RL	49.0	None
2,2',3,3',4,4',5-Heptachlorobiphenyl	1.32	1.32	U RL	1.56	< 2 x RL	NA	None
2,2',3,4,4',5,5'-Heptachlorobiphenyl	1.32	1.32	U RL	1.97	< 2 x RL	NA	None
2,2',3,4',5,5',6-Heptachlorobiphenyl	1.32	1.32	U RL	2.08	< 2 x RL	NA	None
2,2',3,3',4,4',5,6-Octachlorobiphenyl	1.32	1.32	U RL	1.31	U RL	NA	None
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1.32	1.32	U RL	1.31	U RL	NA	None
DecaCB - Homologue	1.32	1.32	U RL	1.31	U RL	NA	None

FD precision was unacceptable for 10 of the 18 NOAA Congeners in FD pair S-12N-G009-0.0-0.1 / S-12N-G009-0.0-0.1-REP

*\*ACTION: 10 PCB Congeners listed above were estimated (J) with indeterminate bias in samples S-12N-G009-0.0-0.1 and S-12N-G009-0.0-0.1-REP due to FD imprecision*

Date: 1/28/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Alpha Analytical

**18 NOAA PCB Congeners Tier I+ Data Validation Checklist**

**ACTIONS:**

Preservation: Cooled to 4 ± 2°C. Sediments may be frozen for up to 1 year to preserve sample prior to extraction. If temperature outside criteria, use professional judgment.

HT: Extraction: waters -7d <HT< 14 d, J det/ J NDs; HT >14 d, J det/R ND

Extraction: sediment - 14d <HT< 28 d, J det/ J NDs; HT >28 d, J det/R ND (freezing arrests HT)

Analysis of extract: 40d < Extract HT < 60d, J det/ J NDs; Extract HT > 60d; J det/ R NDs

Surrogates: % Recovery > 150%, J det/Accept ND; 10% ≤ % Recovery < 30%, J det/J NDs; Recovery < 10%, J det/R NDs.

LCS/LCSD: %Rec<10%, J det/ R NDs; 10% <%Rec<40%, J det/ J NDs; %Rec >140%, J det/Accept NDs. RPD > 30%, J det/UJ NDs.

MS/MSD: %Rec<10%, J det/ R NDs; 10% <%Rec<40%, J det/ J NDs; %Rec >140%, J det/Accept NDs- Unspiked Sample only. RPD > 30%, J det/UJ NDs.

FD: RPD > 30% (waters) or 50% (sediment) for results > 2 x RL, J det/UJ NDs. Use professional judgment for values < 2 x RL.

MBs: If contamination in blank(s) exists, Blank Action Level (BAL)= 5 x Level in Blank (on a sample-equivalent basis). If a sample result is < RL and < BAL, negate (U) result at RL; if value > RL but < BAL, negate (U) result at level reported; if value > BAL, no Action.

RLs: Verify RLs are sample-specific and meet PQL given in QAPP Addendum 2009 UFP - Worksheet #15. If result > upper calibration range, J result; if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Note any non-detects at values > PALs.

Other Data qualified J by lab stays as J; data qualified E by lab becomes J; data qualified U by lab stays U; data qualified P by lab becomes J; data qualified B becomes

Qualifiers: either U or J based on actions taken for Method Blank (MB)

% solids: 10% < % solids < 30%, J det/R ND; % solids < 10%, R detects and NDs.

**Qualifiers:** U = analyte is non-detect at the sample-specific Reporting Limit (RL) (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.

**Reference:** Quality Assurance Project Plan Addendum, New Bedford Harbor Superfund Site, Environmental Monitoring, Sampling, and Analysis, New Bedford, Massachusetts, rev. 5, August 2012 and Region I, EPA-NE Pesticide/PCB Data Validation Functional Guidelines - Part III, Draft February 2004

Laboratory Data were reported using BZ# only - the following table shows a cross reference of BZ# to Congener Name and CAS Number

Congener Name	BZ #	CAS Number
2,4'-Dichlorobiphenyl	BZ#8	34883-43-7
2,2',5'-Trichlorobiphenyl	BZ#18	37680-65-2
2,4,4'-Trichlorobiphenyl	BZ#28	7012-37-5
2,2',3,5'-Tetrachlorobiphenyl	BZ#44	41464-39-5
2,2',5,5'-Tetrachlorobiphenyl	BZ#52	35693-99-3
2,3',4,4'-Tetrachlorobiphenyl	BZ#66	32598-10-0
2,2',4,5,5'-Pentachlorobiphenyl	BZ#101	37680-73-2
2,3,3',4,4'-Pentachlorobiphenyl	BZ#105	32598-14-4
2,3',4,4',5-Pentachlorobiphenyl	BZ#118	31508-00-6

Congener Name	BZ #	CAS Number
2,2',3,3',4,4'-Hexachlorobiphenyl	BZ#128	38380-07-3
2,2',3,4,4',5'-Hexachlorobiphenyl	BZ#138	35065-28-2
2,2',4,4',5,5'-Hexachlorobiphenyl	BZ#153	35065-27-1
2,2',3,3',4,4',5-Heptachlorobiphenyl	BZ#170	35065-30-6
2,2',3,4,4',5,5'-Heptachlorobiphenyl	BZ#180	35065-29-3
2,2',3,4',5,5',6-Heptachlorobiphenyl	BZ#187	52663-68-0
2,2',3,3',4,4',5,6-Octachlorobiphenyl	BZ#195	52663-78-2
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	BZ#206	40186-72-9
Decachlorobiphenyl	BZ#209	52663-77-1

Date: 1/28/13

Data Reviewer: Nancy C. Rothman, Ph.D.

**APPENDIX B NEW ENVIRONMENTAL HORIZONS, INC. DATA  
VALIDATION REPORT**



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## INTRODUCTION

Data were validated by New Environmental Horizons. A data validation (DV) report was produced for each sample delivery group (SDG). Alpha Analytical Laboratories divided samples into SDGs upon receipt, which were assigned a unique 7-digit number preceded by the letter L. The OU3 cap sampling DV report is made up of three data files. The table below describes the contents of each DV data file.

<b>File name</b>	<b>File type</b>	<b>Description</b>
dbval_L1221058dv	.CSV	Comma-delimited database file of validated sample results
NBH_OU3_CapCores_DVReport_L1221058	.PDF	Data validation report letter summarizing actions taken
18NOAACongeners_CAP Sediments_Tier1+Checklist_L1221058	.PDF	Data review checklist for NOAA-18 PCB Congener analyses

This Appendix document includes the DV validation report letter only. All other data files are included as electronic attachments on the accompanying CD.



## Data Validation Report EPA Region I Tier I+ NOAA Congeners by 8082

**Client/Company:** Woods Hole Group, Inc. (WHG)

**Site/Project Name:** New Bedford Harbor Superfund Site – OU1

**Laboratory:** Alpha Analytical – Mansfield, MA

**Lab Project Number(s):** L1221058

**Date(s) of Collection:** November 15, 2012

**Number / Type  
Samples & Analyses** 18 Cap sediment core samples + 1 Equipment Blank for 18 NOAA  
Congeners by EPA SW-846 Method 8082

**Senior Data Reviewers:** Nancy C. Rothman, PhD, New Environmental Horizons, Inc.  
Susan D. Chapnick, New Environmental Horizons, Inc.

**Date Completed:** January 29, 2013

This EPA Region I Tier I+ validation for PCB Congeners and was performed with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Environmental Monitoring, Sampling, and Analysis Quality Assurance Project Plan Addendum, New Bedford Harbor Superfund Site, Operable Unit 1 (OU1), New Bedford, MA, Rev. 5.0*, prepared by Woods Hole Group, Inc., August 2012 (NBH OU1 QAPP Addendum 2012); Region I, *EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses*, December 1996, including *Part III – Pesticide/PCB Data Validation Functional Guidelines*, Draft February 2004; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to generate an electronic deliverable of validated results with project-specific data validation qualifiers added.

The Data Validation Report consists of three parts:

- This Data Validation Report letter summarizing the actions taken;
- The database file of validated sample results with validation qualifiers, bias, and comments added based on actions taken; and
- The Data Review Checklist completed during this validation to document the Tier I+ review. The Checklist is an integral part of the DV Report as it contains comprehensive details of all quality control (QC) reviewed, the acceptance criteria used, and the professional judgment and actions taken.

## I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification analytical parameters reviewed and the quality control (QC) results (as applicable) of Matrix Spike (MS), Matrix Spike Duplicate (MSD), Matrix Duplicate (MD), Field Duplicate (FD), Field Equipment Blank (EB), and Trip Blank (TB), are listed below in Table 1.

Table 1. Sample Descriptions and Analytical Parameters Validated

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
S-12N-G001-0.0-0.1	L1221058-01	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G002-0.0-0.1	L1221058-02	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G003-0.0-0.1	L1221058-03	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G004-0.0-0.1	L1221058-04	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G005-0.0-0.1	L1221058-05	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G006-0.0-0.1	L1221058-06	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G007-0.0-0.1	L1221058-07	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G008-0.0-0.1	L1221058-08	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G009-0.0-0.1	L1221058-09	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G009-0.0-0.1-REP	L1221058-10	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Duplicate of S-12N-G009-0.0-0.1
S-12N-G010-0.0-0.1	L1221058-11	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample

Table 1. Sample Descriptions and Analytical Parameters Validated - *continued*

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
S-12N-G011-0.0-0.1	L1221058-12	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G012-0.0-0.1	L1221058-13	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G013-0.0-0.1	L1221058-14	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G014-0.0-0.1	L1221058-15	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample [used for MS/MSD]
S-12N-G015-0.0-0.1	L1221058-16	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G016-0.0-0.1	L1221058-17	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G017-0.0-0.1	L1221058-18	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
EB-111512-01	L1221058-19	11/15/12	Water	18 NOAA Congeners	Equipment Blank

Note: EB results were reviewed for potential blank actions; however, full data review of this field QC sample was not performed as these results are not directly used for project decisions.

Analytical method references:

18 NOAA Congeners: *Polychlorinated Biphenyls (PCBs) by Gas Chromatography* in EPA's Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846, Third Edition, Method 8082, Rev. 1, February 2007.

## II. Data Validation Report Summary

This Data Validation Report represents a Tier I+ validation of 18 NOAA PCB Congener sample results and summary QC (method and matrix), which were used to evaluate accuracy, precision, and sensitivity compared to the NBH OU1 QAPP Addendum 2012 requirements.

The following QC elements, as applicable to the analytical methods, were reviewed:

- Data package completeness and reporting protocols
- Sample receipt, holding times and preservation criteria
- Blank results including Method Blanks, Equipment Blanks, & Trip blanks
- Laboratory Control Sample (LCS) recoveries / LCS Duplicate Recoveries
- Surrogate Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries

- MS/MSD, LCS/LCSD, sample/Laboratory Duplicate (LD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including compound lists, reporting limits, and units)
- Calibration criteria\* (including tune criteria, initial calibration and continuing calibration verification)
- Internal Standard (IS) Recoveries\*
- Retention Time windows\*
- Other method-specific QC if applicable and reported\* (e.g., serial dilution results for metals)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

\* This QC element is reviewed associated with the Tier II-type validation only. For Tier I+ validations this QC element is assumed to be acceptable unless otherwise noted in the laboratory narrative.

Based on this Tier I+ validation of 18 NOAA PCB Congeners, all results were considered usable for project decisions based on a comparison to the NBH OU1 QAPP Addendum 2012 requirements and with the understanding of the potential uncertainty (bias) in the qualified results summarized in Table 2. NEH generated electronic validated results based on the project database file received from WHG for these data, by updating the following database fields for field samples and field QC only: VALID\_QUAL, VALIDATION\_LEVEL, VALIDATION, VALID\_DATE, BIAS, and DV\_COMMENT.

The remainder of this report documents “exceptions” to the NBH OU1 QAPP Addendum 2012 criteria or clarifications of data reported. QC elements not discussed below met all QAPP criteria. The full documentation of all QC elements reviewed during the Tier I+ validation are presented in the attached Data Review Checklist.

### **Sample Collection, Receipt, and Holding Time**

The CAP sediment core samples were received at the laboratory on November 16, 2012. The samples were frozen immediately and then removed from storage on November 27, 2012 and analyzed for percent solids content. All samples had percent solids content of 48 to 84%; therefore these sediment core samples were air-dried, as required by the QAPP. The samples were returned to frozen storage on November 29, 2012. On December 5, 2012 the samples were again removed from storage, extracted for PCBs, and air-dried percent solids determination was performed. The laboratory maintained the same Lab Sample ID for both the “as received” and “air-dried” sediment aliquots.

After air-drying, the percent solids content for all samples was greater than 99%. As a consequence of the freezing of the aliquots by Alpha, these samples were considered to have been extracted and analyzed within holding time.

### **Accuracy**

The Method and Equipment Blanks were non-detect for all Congeners; therefore, blank action was not required.

Based on the high levels of PCB Congeners observed in previous site sediments, the laboratory used a “high level” surrogate spike; therefore, appropriate surrogate spike recoveries could be evaluated for accuracy in the sample matrix (see QAPP 2012 for further discussion of surrogate spiking solution levels). All surrogate recoveries met acceptance criteria for the samples in this SDG.

The LCS/LCSD recoveries were acceptable for all 18 NOAA Congeners. These results indicate acceptable laboratory accuracy for the method of analysis in the absence of the site matrix.

MS/MSD analyses were performed on the sample S-12N-G014-0.0-0.1. Accuracy was acceptable for all 18 NOAA Congeners for the site matrix.

### **Precision**

LCS/LCSD precision was acceptable for all 18 NOAA Congeners. These results indicate acceptable laboratory precision for the method of analysis in the absence of the site matrix.

MS/MSD precision was acceptable for the analyses performed on sample S-12N-G014-0.0-0.1.

There was one Field Duplicate pair reported in this SDG: S-12N-G009-0.0-0.1 / S-12N-G009-0.0-0.1-REP. FD precision was unacceptable (RPD > 50%) for ten of the 18 NOAA Congeners in this FD pair. These ten Congener results were estimated (J) in both FD pair samples with indeterminate bias due to FD imprecision as listed in Table 2. These FD results are an indication of sample heterogeneity that may affect representativeness of the 18 NOAA PCB Congeners to the site sediment locations.

### **Sensitivity & Reporting**

Several samples were analyzed with various dilutions to report all Congeners within the instrument calibration range. For these samples, all reporting limits (RLs), reported as DETECT\_LIMIT in the validated EDD, were increased as a consequence of the dilutions made (RLs were 1 to over 27 times higher than the 5 µg/Kg PQL given in QAPP Worksheet #15 of the NHB OU1 QAPP Addendum 2012). Total PCBs (as the sum of all detected Congener results) for several of the samples analyzed at dilutions were detected at a level above the Project Action Limit (PAL) for Total PCBs given in Worksheet #15; therefore, sensitivity was generally considered acceptable.

The laboratory reported all results for samples analyzed with dilutions with a “D” qualifier. At Battelle’s request, these “D” qualifiers were maintained during the DV process.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
S-12N-G009-0.0-0.1 S-12N-G009-0.0-0.1-REP	2,4'-Dichlorobiphenyl 2,2',5'-Trichlorobiphenyl 2,2',3,5'-Tetrachlorobiphenyl 2,2',5,5'-Tetrachlorobiphenyl 2,3',4,4'-Tetrachlorobiphenyl 2,2',4,5,5'-Pentachlorobiphenyl 2,3,3',4,4'-Pentachlorobiphenyl 2,3',4,4',5-Pentachlorobiphenyl 2,2',3,3',4,4'-Hexachlorobiphenyl 2,2',3,4,4',5'-Hexachlorobiphenyl	J	I	FD imprecision

*Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = analyte detected in associated equipment blank; EMPC = estimated maximum possible concentration (PCB congeners only); R = Result is rejected and is unusable for project decisions.*

*Bias: L = Low; H = High; I = Indeterminate*

*Abbreviations used in Table 2:*

*FD = Field Duplicate*





**Data Validation Report**  
**EPA Region I Tier I+**  
**NOAA Congeners by 8082**

**Client/Company:** Woods Hole Group, Inc. (WHG)

**Site/Project Name:** New Bedford Harbor Superfund Site – OU1

**Laboratory:** Alpha Analytical – Mansfield, MA

**Lab Project Number(s):** L1221058

**Date(s) of Collection:** November 15, 2012

**Number / Type  
Samples & Analyses** 18 Cap sediment core samples + 1 Equipment Blank for 18 NOAA  
Congeners by EPA SW-846 Method 8082

**Senior Data Reviewers:** Nancy C. Rothman, PhD, New Environmental Horizons, Inc.  
Susan D. Chapnick, New Environmental Horizons, Inc.

**Date Completed:** January 29, 2013

This EPA Region I Tier I+ validation for PCB Congeners and was performed with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Environmental Monitoring, Sampling, and Analysis Quality Assurance Project Plan Addendum, New Bedford Harbor Superfund Site, Operable Unit 1 (OU1), New Bedford, MA, Rev. 5.0*, prepared by Woods Hole Group, Inc., August 2012 (NBH OU1 QAPP Addendum 2012); Region I, *EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses*, December 1996, including *Part III – Pesticide/PCB Data Validation Functional Guidelines*, Draft February 2004; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to generate an electronic deliverable of validated results with project-specific data validation qualifiers added.

The Data Validation Report consists of three parts:

- This Data Validation Report letter summarizing the actions taken;
- The database file of validated sample results with validation qualifiers, bias, and comments added based on actions taken; and
- The Data Review Checklist completed during this validation to document the Tier I+ review. The Checklist is an integral part of the DV Report as it contains comprehensive details of all quality control (QC) reviewed, the acceptance criteria used, and the professional judgment and actions taken.

## I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification analytical parameters reviewed and the quality control (QC) results (as applicable) of Matrix Spike (MS), Matrix Spike Duplicate (MSD), Matrix Duplicate (MD), Field Duplicate (FD), Field Equipment Blank (EB), and Trip Blank (TB), are listed below in Table 1.

Table 1. Sample Descriptions and Analytical Parameters Validated

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
S-12N-G001-0.0-0.1	L1221058-01	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G002-0.0-0.1	L1221058-02	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G003-0.0-0.1	L1221058-03	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G004-0.0-0.1	L1221058-04	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G005-0.0-0.1	L1221058-05	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G006-0.0-0.1	L1221058-06	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G007-0.0-0.1	L1221058-07	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G008-0.0-0.1	L1221058-08	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G009-0.0-0.1	L1221058-09	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G009-0.0-0.1-REP	L1221058-10	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Duplicate of S-12N-G009-0.0-0.1
S-12N-G010-0.0-0.1	L1221058-11	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample

Table 1. Sample Descriptions and Analytical Parameters Validated - *continued*

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
S-12N-G011-0.0-0.1	L1221058-12	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G012-0.0-0.1	L1221058-13	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G013-0.0-0.1	L1221058-14	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G014-0.0-0.1	L1221058-15	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample [used for MS/MSD]
S-12N-G015-0.0-0.1	L1221058-16	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G016-0.0-0.1	L1221058-17	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
S-12N-G017-0.0-0.1	L1221058-18	11/15/12	Air-dried Sediment	18 NOAA Congeners	Field Sample
EB-111512-01	L1221058-19	11/15/12	Water	18 NOAA Congeners	Equipment Blank

Note: EB results were reviewed for potential blank actions; however, full data review of this field QC sample was not performed as these results are not directly used for project decisions.

Analytical method references:

18 NOAA Congeners: *Polychlorinated Biphenyls (PCBs) by Gas Chromatography* in EPA’s Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846, Third Edition, Method 8082, Rev. 1, February 2007.

## II. Data Validation Report Summary

This Data Validation Report represents a Tier I+ validation of 18 NOAA PCB Congener sample results and summary QC (method and matrix), which were used to evaluate accuracy, precision, and sensitivity compared to the NBH OU1 QAPP Addendum 2012 requirements.

The following QC elements, as applicable to the analytical methods, were reviewed:

- Data package completeness and reporting protocols
- Sample receipt, holding times and preservation criteria
- Blank results including Method Blanks, Equipment Blanks, & Trip blanks
- Laboratory Control Sample (LCS) recoveries / LCS Duplicate Recoveries
- Surrogate Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries

- MS/MSD, LCS/LCSD, sample/Laboratory Duplicate (LD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including compound lists, reporting limits, and units)
- Calibration criteria\* (including tune criteria, initial calibration and continuing calibration verification)
- Internal Standard (IS) Recoveries\*
- Retention Time windows\*
- Other method-specific QC if applicable and reported\* (e.g., serial dilution results for metals)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

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Based on this Tier I+ validation of 18 NOAA PCB Congeners, all results were considered usable for project decisions based on a comparison to the NBH OU1 QAPP Addendum 2012 requirements and with the understanding of the potential uncertainty (bias) in the qualified results summarized in Table 2. NEH generated electronic validated results based on the project database file received from WHG for these data, by updating the following database fields for field samples and field QC only: VALID\_QUAL, VALIDATION\_LEVEL, VALIDATION, VALID\_DATE, BIAS, and DV\_COMMENT.

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**REPOSITORY TARGET SHEET**

US EPA New England  
Superfund Document Management System /  
RCRA Document Management System  
**Native Files Target Sheet**

SDMS Document ID #: 535590

Site Name: New Bedford

File Break: 3.7

File Type(s) Attached (examples: Excel file or .jpg):

.xlsx

Document Type this Target Sheet Represents:

- Map       Photograph       Graph/Chart  
 Video       Compact Disc       Other (Specify  
below) .xlsx

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Site Remediation and Restoration Records and Information Center-  
Telephone (617) 918 1440