US Army Corps
of Engineers
New England District

FINAL

2012 Biannual Groundwater Monitoring
Sawyer Street Pilot Study Confined Disposal Facility

New Bedford, Massachusetts

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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May 29, 2013

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

Subject: July and October 2012 Groundwater Sampling Event
New Bedford Harbor Superfund Site
Sawyer Street Pilot Study Confined Disposal Facility (CDF)

Dear Mr. Hugh,

This FINAL Technical Memorandum presents a summary of the groundwater monitoring activities conducted at the Sawyer Street pilot study Confined Disposal Facility (CDF) in New Bedford, Massachusetts during the 2012 biannual monitoring period. The 2012 monitoring study is a continuation of a multi-year program developed to sample six groundwater wells located on the perimeter of the CDF.

The monitoring program provides data that can be used to evaluate the integrity of the CDF, as well assess trends in groundwater concentrations of polychlorinated biphenyls (PCBs) as Aroclors, selected metals (cadmium, chromium, copper, and lead), volatile organic compounds (VOCs), and total suspended solids (TSS).

Groundwater Sampling

Woods Hole Group (WHG) collected groundwater samples, in accordance with the Field Sampling Plan (FSP) (Woods Hole Group, 2012a) on two events: 1) July 2, 2012 and, 2) October 3, 2012. Groundwater samples were collected following the United States Environmental Protection Agency (USEPA) Low Flow Groundwater procedures with documentation of water quality parameters. Documented water quality parameters included dissolved oxygen (DO), acidity or basicity (pH), turbidity, oxidation reduction potential (ORP), temperature, salinity and specific conductivity. Please refer to Table 1 for a summary of the water quality parameters recorded prior to sampling during both events and Appendix A for complete field data records.

Groundwater samples were collected from the following six monitoring wells at the Sawyer Street pilot study CDF (Figure 1):

- MW-1
- MW-3
- MW-4A
- MW-5
- MW-6
- MW-7A

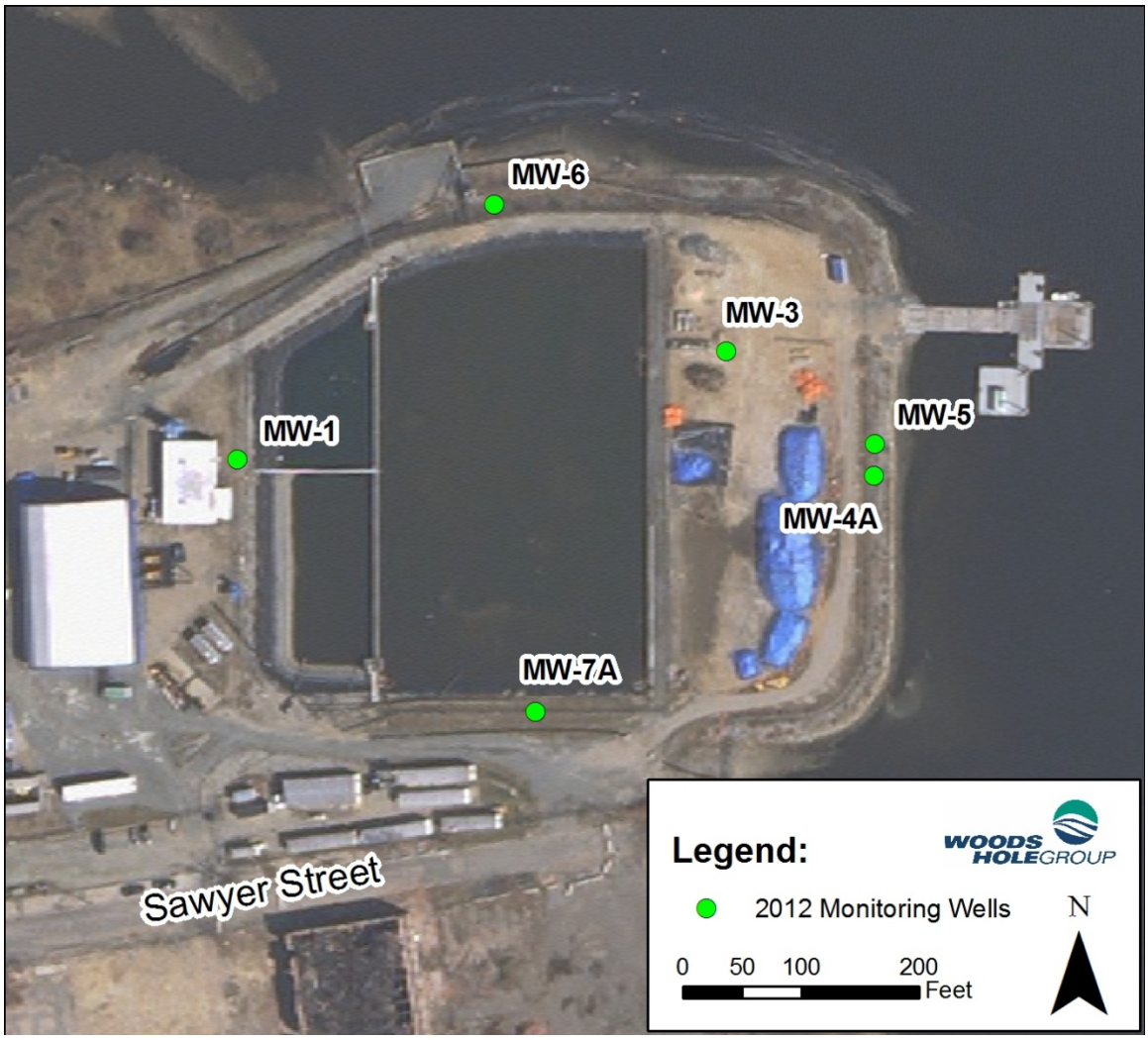

Figure 1. 2012 Monitoring Well Locations

WHG decontaminated all sampling equipment prior to sampling and between each well. Dedicated tubing and new bladders were used for each monitoring well. These procedures minimize the potential for sample contamination and cross-contamination between monitoring wells.

The dissolved oxygen (DO) probe malfunctioned during sampling at well MW-4A on 10/3/12, the first well sampled that day. DO readings quickly increased from 3 mg/L to levels >> 10 mg/L, peaking at 44.8 mg/L. The water in the flow-through cell had extremely small bubbles even after all O-rings were checked for leaks and tubing connections were checked multiple times. The flow-through cell was frequently agitated to break up bubbles that formed on the probe surface, and was completely emptied once. The bladder pump was also lowered several times, in case it was near the water surface and drawing in air. The broken probe passed calibration before monitoring began but failed after sampling was complete at well MW-4A, and it was replaced with a new

probe. This issue did not appear at any other well and the replacement probe performed well for the rest of the day.

The well cap at MW-3 installed by WHG between the 2011 and 2012 sampling events was found securely fashioned to the well upon arrival. It was successful in preventing debris and airborne particles from blowing into the well, which had been exposed to open air when WHG performed groundwater monitoring at the Sawyer Street facility in 2010.

Laboratory Analysis

Groundwater samples were submitted to Alpha Analytical Laboratory (AAL), a Massachusetts and USACE certified laboratory, for Polychlorinated biphenyl (PCB) Aroclor analysis - USEPA Method 8082; selected metal analysis (cadmium, chromium, copper, lead) - USEPA Method 6020A; Volatile Organic Compounds (VOCs) - USEPA Method 8260B; and TSS analysis - USEPA Method 2540D.

Quality control (QC) of samples was performed by collecting separate field replicates (REP), matrix spike (MS), and matrix spike duplicate (MSD) samples, which were submitted for analysis along with the field samples to Alpha Analytical. During the July 2012 sampling event, the REP was collected from MW-5 and the MS/MSD samples were collected from MW-7A. During the October 2012 sampling event, the REP was collected from MW-4A and the MS/MSDs were collected from MW-7A. Quality assurance (QA) samples from MW-7A were submitted to Analytics Environmental Laboratory in Portsmouth, NH to compare analytical results and precision between laboratories. The QA data package was reported directly to the USACE-NAE project chemist for independent review, and the results of that comparison are found in Appendix D.

WHG submitted equipment blanks (EB) and trip blanks (TB) for the July and October sampling events. The equipment blanks were collected using de-ionized (DI) water provided by AAL, which was run through a decontaminated bladder pump into sample containers in the same manner as sampling from a monitoring well. The purpose of equipment blanks is to assess the effectiveness of decontamination procedures. Trip blanks were prepared with DI water by AAL staff, and are used to verify that field samples were not contaminated in the cooler during transport to the laboratory.

All samples were received intact, properly preserved, and within temperature acceptance criteria. Information, and the Chain of Custody documents are also located at the end of the lab reports provided in Appendix B.

Results

Table 2 provides a summary of detected analytes, which were limited to PCB Aroclors 1242 and 1254, tetrachloroethane (PCE), cadmium, chromium and copper. All other compounds analyzed by Alpha Analytical were non-detects or estimated non-detects based on QC findings. No contamination was observed in Equipment Blanks or Trip Blanks associated with either sampling event.

PCB Aroclor detections during the July event were limited to Aroclor 1242 in wells MW-3 and MW-4, compared to the October event which had detections of Aroclors 1242 in wells MW-3 (also Aroclor 1254), MW-4 and MW-5. This is the only notable change between the July and October 2012 sampling events in 2012. There were more PCB Aroclor detections in 2012 (7 detections total, all less than 0.07 µg/L) than in 2010 and 2011 sampling events combined (5 detections total) (Woods Hole Group, 2011; 2012c). The Total PCB concentrations in 2012 were also slightly higher than in 2010-2011 on average, even though the largest concentration was 0.107 µg/L at well MW-3 in 2012 (Woods Hole Group, 2011; 2012c). It appears Total PCB Aroclor contamination has increased both spatially and in each well from 2010 to 2012 when Aroclors were detected. However, the increases were relatively insignificant compared to the MCP GW-3 standards and all Total PCB Aroclor results were less than 0.11 µg/L in 2012.

Acetone was detected in sample MW-04A-100312 (99J µg/L). The presence of tetrachloroethene (PCE) in groundwater samples has been monitored closely throughout this study, and there was a small detection in sample MW-003-100312 (1.2 µg/L, reporting limit = 1 µg/L). This is the same well that had a PCE detection of 1.5 µg/L in 2011 (Woods Hole Group, 2012c).

Copper was detected in every well in 2012, though concentrations were typically just above the reporting limit of 0.001 mg/L. This is the third year in a row that copper was detected in five or more wells during each sampling event (Woods Hole Group, 2011; 2012c). No MCP GW-3 standards are promulgated for copper, but Woods Hole Group continues to monitor copper levels closely in all sampling events. Chromium results from 2012 vary between 0.001 and 0.011 µg/L, which are much less than the MCP GW-3 standard of 0.3 µg/L. Chromium concentrations have slightly increased from year-to-year and have become more widespread spatially since 2010: in 2010 there were 4 detections at 3 wells; in 2011 there were 5 detections at 4 wells; in 2012 there were 9 detections at 4 wells in 2012 (Woods Hole Group, 2011; 2012c). However, the increases in chromium are on the scale of 0.001 µg/L, making them almost negligible.

The three wells to the east of the Sawyer Street CDF (MW-3, MW-4A, MW-5) had the most instances of contaminant increase, compared to MW-7A to the south which had the fewest increases and also the most decreases. However, little can be said about the integrity of the CDF because the concentrations are so small. No analytes were detected above the Massachusetts Contingency Plan (MCP) GW-3 limits in either the July or October 2012 groundwater sampling events, where limits exist. The reporting limits achieved by Alpha Analytical lab water were below MCP GW-3 standards. The complete lab results for the July and October 2012 sampling events are attached in

Appendix B. Tables 3 and 4 contain the complete lab results as well as the validated data qualifiers.

Data Validation

Laboratory results from July and October were submitted to New Environmental Horizons, Inc. for EPA Region I Tier I+ validation of VOCs, PCB Aroclors, and metals. 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 (OU1)* (WHG, 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. Most of the text in this section comes from NEH-generated data validation reports.

July 2, 2012 Sampling Event

Based on this Tier I+ validation of VOCs, PCB Aroclors, and metals, all results from the July 2, 2012 sampling event were considered usable for project decisions. Data were usable based on a comparison of the validated results to the NBH OU1 QAPP Addendum 2012 requirements and with the understanding of the potential uncertainty (bias) in the qualified results. The remainder of this section documents exceptions to the NBH OU1 QAPP Addendum 2012 criteria or clarifications of data reported. QC elements not discussed below met all QAPP criteria.

No contamination was observed in the Method Blanks, Trip Blank, or Equipment Blank (EB) associated with these groundwater samples. Naphthalene was estimated (UJ) in all samples due to low LCS/LCSD recoveries. Several additional compounds recovered high compared criteria in the LCS/LCSD results; however, no actions were required. LCS/LCSD precision was acceptable for all VOCs and PCBs except for the VOC 1,2-dibromo-3-chloropropane. This compound was estimated (UJ) with indeterminate bias in the associated trip blank sample TB-070212. Consistent with the NBH OU-1 QAPP Addendum 2012, an LCSD was not performed for metals.

The field duplicate (FD) samples for this groundwater set were: MW-005-070212 and MW-005-070212-REP. The detected metals results showed acceptable FD precision. All VOC and PCB results for these two samples were non-detect (U); therefore, while it is not possible to quantitatively evaluate FD precision through calculation of relative percent difference (RPD), these results are consistent with each other. These FD results demonstrate acceptable precision and representativeness for VOCs, PCB Aroclors, and metals in the groundwater matrix at this location.

MS/MSD analyses for VOCs, PCBs, and metals were performed on sample MW-07A-070212. Accuracy was considered acceptable for all VOCs, PCBs, and metals, except for the VOCs bromomethane, 2-hexanone, naphthalene, and 1,2,3-trichlorobenzene. These four compounds were estimated (UJ) with possible low bias in sample MW-07A-070212.

Several other compounds recovered high compared to criteria in the VOC MS/MSD analysis; however, no actions were required.

MS/MSD precision for VOCs and PCBs and sample/MD precision for metals were all acceptable, except for the VOC acetone. Acetone was estimated (UJ) with indeterminate bias in sample MW-07A-070212. The laboratory noted that the RPD for copper was outside control limits in the sample/matrix duplicate (MD) pair. However, these results were < 5x RL and met QAPP criteria for acceptance at these low levels; therefore, no action was required.

October 3, 2012 Sampling Event

Based on this Tier I+ validation of VOCs, PCB Aroclors, and metals, all results from the October 3, 2012 sampling event were considered usable for project decisions. Data were usable based on a comparison of the validated results to the NBH OU1 QAPP Addendum 2012 requirements and with the understanding of the potential uncertainty (bias) in the qualified results. The remainder of this section documents exceptions to the NBH OU1 QAPP Addendum 2012 criteria or clarifications of data reported. QC elements not discussed below met all QAPP criteria.

No contamination was observed in the Method Blanks, Trip Blank, or Equipment Blank (EB) associated with these groundwater samples. Acetone was estimated (J) in sample MW-04A-100312 due to high LCS/LCSD recoveries. Several additional compounds recovered LCS/LCSD outside criteria; however, no actions were required.

LCS/LCSD precision was acceptable for all VOCs and PCBs except for the VOC 1,4-dioxane, which is a poor performer in method 8260B and is difficult to extract from water matrices. This compound was estimated (UJ) with indeterminate bias in all groundwater samples except MW-001-100312. Consistent with the NBH OU-1 QAPP Addendum 2012, an LCSD was not performed for metals.

The field duplicate (FD) samples for this groundwater set were: MW-04A-100312 and MW-04A-100312-REP. The detected metals and PCB results showed acceptable FD precision. FD precision was not acceptable for the VOC acetone resulting in estimation (J or UJ) of this compound in the FD pair. These FD results demonstrate acceptable precision and representativeness for all VOCs, PCB Aroclors, and metals except for acetone in the groundwater matrix at this location.

MS/MSD analyses for VOCs, PCBs, and metals were performed on sample MW-07A-100312. Accuracy was considered acceptable for all VOCs, PCBs, and metals except for the VOC bromomethane. This compound was estimated (UJ) with possible low bias in sample MW-07A-100312. Several other compounds recovered high compared to criteria in the VOC MS/MSD analysis; however, no actions were required. MS/MSD precision for VOCs and PCBs and sample/MD precision for metals were all acceptable.

Conclusions

In July and October 2012, WHG collected groundwater samples at the Sawyer Street pilot study CDF. Groundwater samples were analyzed for VOCs, PCB Aroclors, selected metals (cadmium, chromium, copper, and lead) and TSS. Analytical results from samples collected during both events indicate that none of the analytes have exceeded the promulgated MCP GW-3 standards, where MCP GW-3 standards exist. Results from 2012 are within range of results observed in 2010-2011, despite some minor changes from year-to-year. Very small increases in contaminant concentration were most prevalent in wells to the east of the Sawyer Street CDF: wells MW-3, MW-4A, and MW-5. However, little can be said about the integrity of the Sawyer Street CDF because the concentrations are so small.

Sincerely,

Woods Hole Group, Inc.

Dack Stuart
Coastal Scientist

David R. Walsh
Chief Scientist, Senior Project Manager

Attachments:
Appendix A Field Data Records
Appendix B Alpha Analytical Laboratory Reports
Appendix C New Environmental Horizons, Inc. Data Validation Reports
Appendix D Quality Assurance Data Comparison

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Table 1. Summary of Groundwater Parameters Prior to Sampling

Event	Well ID	Sample Date/Time	Depth to Water (ft)	Temperature (°C)	Specific Cond. (µS/cm)	pH	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Salinity (ppt)	Purge Volume (L)	Flow Rate (mL/min)
July 2012	MW-1	7/2/12 14:50	20.08	23.33	0.870	7.11	3.05	3.19	12.3	0.43	5.94	64
	MW-3	7/2/12 11:50	16.26	25.55	2.841	6.91	0.55	3.58	-86.2	1.47	2.23	56
	MW-4A	7/2/12 9:45	13.04	20.34	6.180	6.90	0.11	5.71	-292.0	3.38	6.32	54
	MW-5	7/2/12 9:10	11.95	23.39	2.195	7.55	0.24	2.46	-134.4	1.12	4.20	80
	MW-6	7/2/12 14:00	14.40	19.79	0.671	7.35	0.37	18.80	-148.0	0.33	9.31	56
	MW-7A	7/2/12 16:10	11.64	22.12	0.733	6.70	0.85	0.79	-10.7	0.36	3.14	82
October 2012	MW-1	10/3/12 16:45	17.88	20.19	0.805	6.76	0.78	5.12	-24.4	0.40	1.97	35
	MW-3	10/3/12 14:00	16.38	20.08	0.916	6.49	1.38	1.50	43.3	0.45	3.44	30
	MW-4A	10/3/12 9:55	10.47	17.75	5.395	6.82	37.5*	2.32	-232.2	2.93	5.30	70
	MW-5	10/3/12 10:45	9.47	17.76	3.264	7.72	0.24	2.78	-179.0	1.72	6.06	44
	MW-6	10/3/12 14:30	12.58	18.99	0.725	7.27	0.84	22.40	-102.0	0.36	2.84	52
	MW-7A	10/3/12 16:30	11.75	19.13	0.789	6.56	2.73	0.80	6.1	0.39	2.27	72

* DO probe malfunctioned shortly after monitoring began at this well.

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Table 2. Summary of Detected Analytes for the July and October 2012 Groundwater Sampling Events

Well ID	Sample Data/Time	Results (µg/L)			Results (mg/L)			
		Total PCBs [(a)]	Acetone	Tetrachloroethene	Cadmium	Chromium	Copper	TSS
MW-1	7/2/12 14:50	U	U	U	0.0007	0.011	0.003	1.8
MW-1	10/3/12 16:45	U	U	U	U	U	0.001	4.0
MW-3	7/2/12 11:50	0.047	U	U	U	0.001	0.006	20.8
MW-3	10/3/12 14:00	0.107	U	1.2	U	0.002	0.006	10.0
MW-4A	7/2/12 9:45	0.046	U	U	U	0.005	0.009	2.5
MW-4A	10/3/12 9:55	0.045	99 J	U	0.0009	0.003	0.008	1.4
MW-4A-REP	10/3/12 9:55	0.047	UJ	U	U	0.001	0.006	1.5
MW-5	7/2/12 9:10	U	U	U	U	0.005	0.004	3.2
MW-5-REP	7/2/12 9:45	U	U	U	U	0.003	0.004	1.2
MW-5	10/3/12 10:45	0.02	U	U	U	0.003	0.005	3.3
MW-6	7/2/12 14:00	U	U	U	U	U	0.001	14.2
MW-6	10/3/12 14:30	U	U	U	U	U	0.001	11.9
MW-7A	7/2/12 16:10	U	UJ	U	U	U	0.003	1.0
MW-7A	10/3/12 16:30	U	U	U	U	U	0.002	2.3
MCP GW-3 Criteria [(b)]		10	50,000	30,000	0.004	0.3	N/A	N/A

Notes:
[(a)] – Total PCB calculated as the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254 and 1260; a value of zero (0) was used in summation for non-detects (U). 1242 and 1254 were the only detected Aroclors.
[(b)] – Massachusetts Contingency Plan (MassDEP, 2008), Method 1Groundwater Standards.
µg/L- micrograms per liter (ppb)
mg/L- milligrams per liter (ppm)
U- Analyte is non-detect at or above the sample-specific reporting limit
J – Result is estimated

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Table 3. July Laboratory Results and Validated Qualifiers

Parameter Name	Units	Detection Limit	MW-001-070212			MW-003-070212			MW-04A-070212			MW-005-070212			MW-005-070212-REP			MW-006-070212			MW-07A-070212		
			Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier
Cadmium	mg/L	0.0005	0.0007			0.0005	U	U	0.0005	U	U	0.0005	U	U	0.0005	U	U	0.0005	U	U	0.0005	U	U
Chromium	mg/L	0.001	0.011			0.001			0.005			0.005			0.003			0.001	U	U	0.001	U	U
Copper	mg/L	0.001	0.003			0.006			0.009			0.004			0.004			0.001			0.003		
Lead	mg/L	0.001	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U
Aroclor 1016	µg/L	0.01	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U
Aroclor 1221	µg/L	0.01	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U
Aroclor 1232	µg/L	0.01	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U
Aroclor 1242	µg/L	0.01	0.01	U	U	0.047			0.046			0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U
Aroclor 1248	µg/L	0.01	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U
Aroclor 1254	µg/L	0.01	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U
Aroclor 1260	µg/L	0.01	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U	0.01	U	U
Total suspended solids	mg/L	1	1.8			20.8			2.5			3.2			1.2			14.2			1		
Acetone	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	UJ
Benzene	µg/L	0.5	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U
Bromobenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Bromochloromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Bromodichloromethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Bromoform	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Bromomethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	UJ
Carbon Disulfide	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Carbon Tetrachloride	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Chlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Chloroethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Chloroform	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Chloromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Cis-1,2-Dichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Cis-1,3-Dichloropropene	µg/L	0.5	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U
Dibromochloromethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Dibromomethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Dichlorodifluoromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Diethyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Di-Isopropyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Ethyl Tertiary-Butyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Ethylbenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Hexachlorobutadiene	µg/L	0.6	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U
Isopropylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Methylene Chloride	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Methyl-Tert-Butyl-Ether (Mtbe)	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
N-Butylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
N-Propylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
O-Xylene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
P-Isopropyltoluene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
P/M Xylene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Sec-Butylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Styrene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Tert-Butylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Tertiary-Amyl Methyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Tetrachloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Toluene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Trans-1,2-Dichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Trans-1,3-Dichloropropene	µg/L	0.5	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U
Trichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Trichlorofluoromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Vinyl Chloride	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1-Dichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1-Dichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1-Dichloropropene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,1,1-Trichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1,1,2-Tetrachloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1,2-Trichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1,2,2-Tetrachloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2-Dibromoethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2-Dibromo-3-Chloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2-Dichlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2-Dichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2-Dichloropropane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2,3-Trichlorobenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	UJ
1,2,3-Trichloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2,4-Trichlorobenezene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2,4-Trimethylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,3-Dichlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,3-Dichloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,3,5-Trimethylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,4-Dichlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,4-Dioxane (P-Dioxane)	µg/L	250	250	U	U	250	U	U	250	U	U	250	U	U	250	U	U	250	U	U	250	U	U
2-Butanone	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U
2-Chlorotoluene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
2-Hexanone	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	UJ
2,2-Dichloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
4-Chlorotoluene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
4-Methyl-2-Pentanone	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U
Tetrahydrofuran	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U
Naphthalene	µg/L	2	2	U	UJ	2	U	UJ	2	U	UJ	2	U	UJ	2	U	UJ	2	U	UJ	2	U	UJ

Notes: Shaded regions represent detected laboratory analytes or analytes for which the validated qualifier differs from the laboratory qualifier, or when the analyte was detected in the sample.
U- Analyte is non-detect at or above the sample-specific reporting limit
J – Result is estimated
UJ- Non-detect is estimated
R- Result is rejected and is unusable for project decisions

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Table 4. October Laboratory Results and Validated Qualifiers

Parameter Name	Units	Detection Limit	MW-001-100312			MW-003-100312			MW-04A-100312			MW-04A-100312-REP			MW-005-100312			MW-006-100312			MW-07A-100312		
			Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier	Results	Lab Qualifier	DV Qualifier
Cadmium	mg/L	0.0005	0.0005	U	U	0.0005	U	U	0.0009			0.0005	U	U	0.0005	U	U	0.0005	U	U	0.0005	U	U
Chromium	mg/L	0.001	0.001	U	U	0.002			0.003			0.001			0.003			0.001	U	U	0.001	U	U
Copper	mg/L	0.001	0.001			0.006			0.008			0.006			0.005			0.001			0.002		
Lead	mg/L	0.001	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U	0.001	U	U
Aroclor 1016	µg/L	0.011	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U
Aroclor 1221	µg/L	0.011	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U
Aroclor 1232	µg/L	0.011	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U
Aroclor 1242	µg/L	0.011	0.011	U	U	0.068			0.045			0.047			0.02			0.011	U	U	0.011	U	U
Aroclor 1248	µg/L	0.011	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U
Aroclor 1254	µg/L	0.011	0.011	U	U	0.039			0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U
Aroclor 1260	µg/L	0.011	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U	0.011	U	U
Total suspended solids	mg/L	1	4			10			1.4			1.5			3.3			11.9			2.3		
Acetone	µg/L	5	5	U	U	5	U	U	99		J	5	U	UJ	5	U	U	5	U	U	5	U	U
Benzene	µg/L	0.5	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U
Bromobenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Bromochloromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Bromodichloromethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Bromoform	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Bromomethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	UJ
Carbon Disulfide	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Carbon Tetrachloride	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Chlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Chloroethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Chloroform	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Chloromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Cis-1,2-Dichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Cis-1,3-Dichloropropene	µg/L	0.5	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U
Dibromochloromethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Dibromomethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Dichlorodifluoromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Diethyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Di-Isopropyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Ethyl Tertiary-Butyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Ethylbenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Hexachlorobutadiene	µg/L	0.6	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U	0.6	U	U
Isopropylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Methylene Chloride	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Methyl-Tert-Butyl-Ether (Mtbe)	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
N-Butylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
N-Propylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
O-Xylene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
P-Isopropyltoluene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
P/M Xylene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Sec-Butylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Styrene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Tert-Butylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Tertiary-Amyl Methyl Ether	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Tetrachloroethene	µg/L	1	1	U	U	1.2			1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Toluene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Trans-1,2-Dichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Trans-1,3-Dichloropropene	µg/L	0.5	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U	0.5	U	U
Trichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
Trichlorofluoromethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
Vinyl Chloride	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1-Dichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1-Dichloroethene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1-Dichloropropene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,1,1-Trichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1,1,2-Tetrachloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1,2-Trichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,1,2,2-Tetrachloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2-Dibromoethane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2-Dibromo-3-Chloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2-Dichlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2-Dichloroethane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2-Dichloropropane	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,2,3-Trichlorobenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2,3-Trichloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2,4-Trichlorobenezene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,2,4-Trimethylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,3-Dichlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,3-Dichloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,3,5-Trimethylbenzene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
1,4-Dichlorobenzene	µg/L	1	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U	1	U	U
1,4-Dioxane (P-Dioxane)	µg/L	250	250	U	U	250	U	UJ	250	U	UJ	250	U	UJ	250	U	UJ	250	U	UJ	250	U	UJ
2-Butanone	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U
2-Chlorotoluene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
2-Hexanone	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U
2,2-Dichloropropane	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
4-Chlorotoluene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U
4-Methyl-2-Pentanone	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U
Tetrahydrofuran	µg/L	5	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U	5	U	U
Naphthalene	µg/L	2	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U	2	U	U

Notes: Shaded regions represent detected laboratory analytes or analytes for which the validated qualifier differs from the laboratory qualifier, or when the analyte was detected in the sample.
U- Analyte is non-detect at or above the sample-specific reporting limit
J – Result is estimated
UJ- Non-detect is estimated
R- Result is rejected and is unusable for project decisions

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Woods Hole Group. 2012a. Sawyer Street CDF Groundwater Monitoring 2012 Field Sampling Plan New Bedford Harbor Superfund Site, OU#1 Prepared under Contract W912WJ-09-D-0001 Task Order No 0010-07 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. New Bedford Harbor Superfund Site, New Bedford, Massachusetts. Prepared under Contract W912WJ-09-D-0001 Task Order No 0010-07 for the U.S. Army Corps of Engineers New England District, Concord, MA.

Woods Hole Group. 2012c. 2011 Biannual Groundwater Monitoring Final Technical Memorandum. Sawyer Street Pilot Study Confined Disposal Facility. New Bedford, Massachusetts. Prepared under Contract W912WJ-09-D-0001 Task Order No 0010-04 for the U.S. Army Corps of Engineers New England District, Concord, MA.

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APPENDIX A: FIELD DATA RECORDS

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CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 7/2/12

PROJECT: New Bedford

JOB NUMBER: TO-0010-07

Bottle Time: 1450

MONITORING WELL ID: MW-001

ACTIVITY TIME: START 1305 END ~~1450~~ 1620 DGS

WATER LEVEL / PUMP DATA

INITIAL DTW: DGS 16.89 ~~16.26~~ ft ~~(TOR)~~ TOC

FINAL DTW: 18.75 ft ~~(TOR)~~ TOC

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: -0.30

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 1.57

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.19

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1345	17.38	152	23.19	0.937	7.59	8.08	7.65	55.2	0.46	
1350	17.28	—	21.92	0.936	7.36	6.84	—	49.7	0.46	Pump over heated waiting for pump to restart
1355	—	—	—	—	—	—	—	—	—	
1400	17.17	68	22.78	0.934	7.51	38.7%	5.21	38.5	0.46	
1405	17.48	72	24.38	0.927	7.52	6.29	4.67	33.9	0.45	
1410	18.1	148	22.62	0.916	7.39	6.63	4.55	47.6	0.45	
1415	18.96	128	21.51	0.890	7.07	5.18	7.59	50.8	0.44	
1420	19.55	180	22.03	0.889	7.15	6.50	5.42	44.5	0.44	
1425	19.72	60	21.12	0.904	6.76	2.01	6.80	41.0	0.45	
1430	19.77	60	22.15	0.903	6.84	1.98	4.40	34.1	0.44	
1435	19.89	64	23.17	0.894	6.99	2.45	2.95	24.9	0.44	
1440	19.98	62	23.52	0.881	7.09	2.74	1.91	17.7	0.43	
1445	20.08	64	23.33	0.870	7.11	3.05	3.19	12.3	0.43	
1450	—	—	—	—	—	—	—	—	—	Samples

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
☐	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	☐

NOTES

SIGNATURE: Dack Stuart

CHECKED BY:

\\Whgs003c\usace\USACE\TaskOrders\TO-0010-07_NB Harbor Monitoring (2012 MOD)\FSP, QAPP, APP, Log sheets\Log Sheets\Field_Form_LOW_FLOW_UPDATE

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 7/2/12

PROJECT: New Bedford | JOB NUMBER: TO-0010-07 | Bottle Time

MONITORING WELL ID: MW-003 | ACTIVITY TIME: START 1045 END | 1150

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW: 14.24 ft ~~(TOR)~~ TOC | FINAL DTW: 17.71 ft ~~(TOR)~~ TOC | DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: -0.56

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 0.59 | RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.95

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1108	14.78	82	21.41	2.749	6.82	2.34	1.71	-66.8	1.43	
1113	15.18	56	21.79	2.744	6.80	1.57	2.15	-66.5	1.42	
1118	15.35	52	22.66	2.744	6.83	1.10	3.14	-70.4	1.42	
1123	15.57	48	23.75	2.777	6.88	1.44	3.67	-68.1	1.44	
1126	15.67	46	24.35	2.792	6.88	0.81	3.85	-76.6	1.45	
1130	15.80	46	24.80	2.800	6.89	0.72	4.71	-78.0	1.45	
1135	15.95	46	25.29	2.820	6.90	0.61	4.95	-81.2	1.46	
1140	16.07	46	25.22	2.843	6.90	0.60	4.07	-85.7	1.47	
1145	16.26	56	25.55	2.841	6.91	0.55	3.58	-86.2	1.47	
1150										Samples

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[ ]	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[ ]

NOTES

Temperature increase may be due to high temperature at surface & and low flow rate to replace water in flow-through cell = water near probe is heating up.

SIGNATURE: Dick Stinson

This well recharges at 20-30 mL/mm

CHECKED BY: _____

CONSULTANT | Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date 7/2/12

PROJECT New Bedford Groundwater | JOB NUMBER TO-0010-07 | Bottle Time

MONITORING WELL ID MW-04A | ACTIVITY TIME START 730 END 1050 | 0945

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW 11.08 ft (~~TOR~~) TOC MAB | FINAL DTW 13.98 ft (~~TOR~~) TOC | DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft -0.46

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L 1.67 | RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME 0.28

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
0808	11.85	55	16.57	10.01	6.94	1.17	22.6	-353	5.79	Pump On 0800 1 c/arch
0813	11.92	55	17.92	10.08	6.77	0.75	11.8	-356.2	6.77	
0818	12.04	55	18.70	10.09	6.79	0.56	9.41	-362	5.71	
0823	12.05	55	20.07	9.83	6.81	0.45	11.4	-338	5.56	
0828	12.25	55	20.85	9.30	6.81	0.33	8.37	-345	5.20	
0833	12.30	55	21.56	9.11	6.82	0.27	7.40	-345	5.11	
0838	12.32	55	22.06	9.10	6.83	0.23	6.84	-361	5.11	
0843	12.39	50	22.36	8.76	6.84	0.21	7.34	-338	4.87	
0848	12.40	50	22.19	8.35	6.84	0.20	5.12	-344.6	4.64	
0853	12.51	200	21.92	7.96	6.84	0.20	7.41	-334	4.41	Changed batteries
0858	13.08	47	17.30	7.20	6.84	0.27	4.84	-330	3.98	Changed discharge rate
0904	13.08	47	17.44	6.87	6.80	0.22	3.96	-306	3.78	
0909	13.12	~50	17.29	6.72	6.82	0.44	6.15	-314	3.70	
0914	13.18	78	17.95	6.51	6.84	0.20	7.07	-298	3.57	
0919	13.28	80	18.20	6.37	6.84	0.17	5.90	-298	3.41	
0923	13.04	54	18.64	6.26	6.87	0.14	5.85	-309	3.43	
0928	13.06	54	19.22	6.29	6.87	0.13	6.92	-286	3.405	
0933	13.04	54	19.97	6.23	6.88	0.11	6.76	-297	3.39	
0938	13.04	54	20.34	6.18	6.90	0.11	5.71	-292	3.38	
0945	sampled									
0945	13.08	50	Bottel	5.57	6.91	0.18	5.05	-314	3.02	post sample
	MAB									

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[X]	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[ ]

NOTES Mitchell Bucky Duck Stuart

760.7 mm Hg

Well needs to be ~50 ml/min to produce water

SIGNATURE: _____

CHECKED BY: _____

CONSULTANT | Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 7/2/12

PROJECT: New Bedford | JOB NUMBER: TO-0010-07 | Bottle Time: 0910

MONITORING WELL ID: ~~MW-Q~~ MW-5 (DGS) | ACTIVITY TIME: START 0740 END 1030

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW: 10.00 ft ~~(FOR)~~ TOC

FINAL DTW: 12.92 ft ~~(FOR)~~ TOC

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: -0.47

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 1.11

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.42

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
0810	10.37	100	20.90	2.285	7.33	3.06	7.81	-72.9	1.17	
0815	10.75	52	20.56	2.261	7.26	1.34	2.53	-79.0	1.16	
0820	11.00	30	21.68	2.238	7.43	1.04	3.01	-100.9	1.15	
0825	11.15	68	22.19	2.248	7.50	0.83	2.34	-113.3	1.16	
0830	11.29	60	22.38	2.253	7.53	0.69	2.05	-115.2	1.15	
0835	11.34	56	22.82	2.250	7.57	0.67	2.11	-135.1	1.15	
0840	11.43	86	23.17	2.250	7.56	0.58	3.29	-138.9	1.15	
0845	11.55	88	23.99	2.250	7.57	0.49	2.03	-138.7	1.16	
0850	11.64	84	27.73	2.257	7.60	0.49	2.28	-145.0	1.16	
0855	11.72	82	23.35	2.228	7.56	0.41	2.31	-148.7	1.14	
0900	11.86	64	23.37	2.244	7.54	0.44	2.81	-134.0	1.13	
0905	11.95	80	23.96	2.195	7.55	0.24	2.46	-134.4	1.12	
										Samples @ 0910
										REP @ 0945

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[ ]	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[ ]

NOTES

Collected Samples @ 0910

Collected REP @ 0945

SIGNATURE: Jack Stevens

CHECKED BY: _____

CONSULTANT | Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date ~~6/27/12~~ 7/2/12

PROJECT: New Bedford Groundwater | JOB NUMBER: TO-0010-07 | Bottle Time

MONITORING WELL ID: MW-06 | ACTIVITY TIME: START 1140 END | 1400

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW	13.86 ft (~~TOR~~) TOC	FINAL DTW	15.28 ft (~~TOR~~) TOC	DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft	-0.23
TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L	2.46	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME	0.09		

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1155	12.34	Pump On								After Pump Installed
1205	14.50	200	23.61	0.780	7.28	12.10	447	+115	0.37	Lots of flo Turned pump down
1210	14.73	200	16.72	0.675	7.21	0.68	391	-126	0.33	Turned Pump down
1215	14.42	40	16.76	0.668	7.16	0.55	296	-130	0.32	Adjusted rate up
1220	14.32	~~100~~ 100	17.85	0.658	7.20	0.55	161	-119	0.32	
1225	14.32	100	18.39	0.652	7.19	0.49	148	-112	0.32	emptied VSL of dirty H2O
1230	14.34	~~100~~ 88	11.40	0.648	6.96	1.34	92.4	-136	0.32	
1235	14.25	88	18.36	0.654	7.22	0.91	69	-131	0.32	
1240	14.15	88	18.94	0.658	7.20	0.71	60.1	-128	0.32	
1245	14.15	88	19.86	0.663	7.23	0.56	46.4	-144	0.32	
1250	14.20	88	19.36	0.677	7.29	0.67	67.4	-157	0.33	
255	14.20	88	19.16	0.670	7.22	76.3 → 0.80	52	-152	0.33	
1300	14.20	70	19.63	0.671	7.25	0.69	83.6	-137	0.33	
1305	14.20	70	19.94	0.673	7.26	0.53	89.8	-158	0.33	
1310	14.12	60	20.85	0.677	7.23	0.95	204	-155	0.33	Pump off - Turbidity High to allow sediment settle
1326	Pump on									seemed to work
1332	14.20	40	19.13	0.701	7.44	2.15	56.1	-176	0.34	
1337	14.30	52	18.15	0.682	7.37	0.49	36.4	-173	0.33	
1342	14.33	56	18.18	0.678	7.29	0.38	23.4	-154	0.33	
1347	14.40	56	18.25	0.677	7.35	0.25	13.7	-146	0.33	
1352	14.40		18.95	0.671	7.33	0.24	17.1	-146	0.33	
1357	14.40		19.29	0.671	7.35	0.37	18.8	-149	0.33	Sampled 1400

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[ ]

NOTES: Careful of sediment. Pump slow.

SIGNATURE: Jack Stuart

CHECKED BY: _____

CONSULTANT | Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 7/2/12

PROJECT: New Bedford | JOB NUMBER: T0-0010-07 | Bottle Time

MONITORING WELL ID: MW-7A | ACTIVITY TIME: START 1525 END | 1610

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW: 12.58 ~~11.58~~ MAB ~~TOR~~ TOC ft (~~TOR~~) | 15.1 depth

FINAL DTW: 15.1 ft (~~TOR~~) TOC

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: -0.40

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 0.83

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.49

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1530	11.54	Pump On								
1535	11.76	140	18.96	0.723	6.79	3.43	15.3	25	0.38	
1540	11.68	102	18.70	0.753	6.73	1.82	4.63	-12.5	0.37	Turned pump down
1545	11.68	60	19.91	0.727	6.71	1.35	3.18	-6.8	0.36	Turned pump down
1550	11.64	55	20.8	0.724	6.71	1.22	1.39	-5.6	0.35	
1555	11.65	55	21.81	0.723	6.71	1.08	1.25	-5.2	0.35	
1600	11.65	82	22.29	0.727	6.71	1.00	1.00	-6.4	0.36	
1605	11.64	82	22.12	0.733	6.70	0.85	0.79	-10.7	0.36	
1610	Sampled									

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[X]	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[ ]

NOTES: Collected MS/MSD
Well produces a lot of water over 100 ml/min

SIGNATURE: Dael Stud

CHECKED BY: _____

FIELD INSTRUMENTATION CALIBRATION RECORD

Woods Hole Group, INC

PROJECT: NEW BEDFORD GROUNDWATER MONITORING | DATE: 6/29/30 | TIME: 13:30

CREW ID OR TASK ID: TO-0010-07 | JOB NUMBER:

SAMPLER SIGNATURE: PMC | CHECKED BY:

EQUIPMENT CALIBRATION

METER TYPE: YSI
MODEL NO.: 556 MPS
UNIT ID NO.: 1098036

		AM CALIBRATION STANDARD VALUE	AM CALIBRATION METER VALUE	PM CALIBRATION CHECK STANDARD VALUE	PM CALIBRATION CHECK METER VALUE	ACCEPTANCE CRITERIA **
pH units		4.0	4.00	4.0	4.02	+/- 10% of standard
		7.0	7.00	7.0	7.02	PDL 7/2/12
pH units		7.0	7.00	10.0	~~7.02~~ 10.02	+/- 10% of standard
Redox +/- mV		10.0	10.04	+229	220.1	see note 1
		+229	220.7	~~+229~~		
(1,000 µmhos) Conductivity mS/cm		1.0	1.004	1.0	1.051	+/- 10% of standard
		100%	81.5%			
DO mg/L *		100%	98.4%	100%	92.5	+/- 10% of standard
Temperature deg. C			21.09		26.54	
TURBIDITY						
METER TYPE: HACH	NTU (low)	10	9.27	10	9.42	within 0.3 NTU of
MODEL NO.: 2100 Q		20	18.8	20	18.8	the standard
UNIT ID NO.: 1130302	NTU (high)	100	93.7	100	91.0	+/- 10% of standard
		800	729	800	710	

Check One

- ☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
- ☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above (see notes below).

MATERIALS RECORD

Calibration Fluids / Standard Source: MACTEC FOS Aqua Solutions

Disposable Filter Type: NA NA

Lot Number

pH /Conductivity 2052374 / 1081860 / 2020173 / 107 / 1877
ORP 1072630
Turbidity A1262
Other NA

NOTES:

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the parameter was not calibrated to the acceptance criteria.

1 = within 35 millivolts of the value of the standard (usually standard is 240 mV, so meter should read between 205 and 275).

* = standard based on saturated headspace at given temperature

FIELD INSTRUMENTATION CALIBRATION RECORD

Woods Hole Group, INC

PROJECT: New Bedford Harbor Groundwaters | DATE: 7/2/12 | TIME: 8640

CREW ID OR TASK ID: TO-0010-07 | JOB NUMBER:

SAMPLER SIGNATURE: [signature] | CHECKED BY:

EQUIPMENT CALIBRATION

METER TYPE: YSI
MODEL NO.: 556 MPS
UNIT ID NO.: 1130059

		AM CALIBRATION STANDARD VALUE	AM CALIBRATION METER VALUE	PM CALIBRATION CHECK STANDARD VALUE	PM CALIBRATION CHECK METER VALUE	ACCEPTANCE CRITERIA **
pH	units	4.0	4.0	4.00	3.99	+/- 10% of standard
				7.00	7.01	
pH	units	7.0	7.0	10.00	10.07	+/- 10% of standard
		10.0	9.98			
Redox	+/- mV	+229	221.7	+229	218.4	see note 1
Conductivity (1,000 µmhos)	mS/cm	1.0	1.073	1.0	1.001	+/- 10% of standard
DO	mg/L *	Air 100%	98.8	Air 100%	99.1	+/- 10% of standard
Temperature	deg. C		19.49		26.96	
TURBIDITY						
METER TYPE: 1123742	NTU (low)	10	9.36	10	9.83	within 0.3 NTU of
MODEL NO.: HACH		20	18.7	20	18.8	the standard
UNIT ID NO.: 2100Q	NTU (high)	100	95.1	100	95.1	+/- 10% of standard
		800	741	800	721	

Check One

- ☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
- ☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above (see notes below).

MATERIALS RECORD

Calibration Fluids / Standard Source: MACTEC FOS Aqua Solutions

Disposable Filter Type: NA NA

Lot Number

pH /Conductivity: 2052374/1081860/20220173/1071877
ORP: 1072630
Turbidity: A2072
Other: NA

NOTES:

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the parameter was not calibrated to the acceptance criteria.

1 = within 35 millivolts of the value of the standard (usually standard is 240 mV, so meter should read between 205 and 275).

* = standard based on saturated headspace at given temperature

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 10/3/12

PROJECT: TO-0010-07

JOB NUMBER: New Bedford Groundwater

Bottle Time: 1645

MONITORING WELL ID: MW-001

ACTIVITY TIME: START 1545 END ~~XG~~ DS 1735

WATER LEVEL / PUMP DATA

INITIAL DTW: 16.49 ft (~~TOR~~) TOC

FINAL DTW: 19.21 ft (~~TOR~~) TOC

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: - 0.435

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: DS ~~1.04~~ 40 ml/min 0.52

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: DS ~~1:1.20~~ 1:1.20

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1555	17.47	90	19.62	0.742	6.86	2.72	4.16	54.8	0.36	CPA2 24/6
1600	17.70	40	19.63	0.743	6.86	1.44	2.86	56.7	0.36	28/2
1605	17.80	40	19.83	0.746	6.85	1.39	3.15	45.5	0.36	28/2
1610	17.78	40	19.96	0.762	6.82	1.18	3.58	20.0	0.37	28/2
1615	17.82	40	20.07	0.769	6.82	1.11	5.43	8.0	0.38	28/2
1620	17.90	30	20.12	0.776	6.79	0.99	5.52	-8.5	0.38	29/1
1625	17.88	35	20.20	0.787	6.78	0.93	5.41	-13.5	0.39	29/1
1630	17.88	40	20.21	0.793	6.76	0.90	5.13	-21.1	0.39	29/1
1635	17.88	35	20.18	0.801	6.76	0.84	5.19	-22.7	0.39	29/1
1640	17.88	35	20.19	0.805	6.76	0.78	5.12	-24.4	0.40	29/1
1645	Samples									29/1
~~1732~~	~~18~~ DS									
1735	19.94	40	18.87	0.780	6.81	1.31	4.00	-31.1	0.38	

DS

ANALYTICAL PARAMETERS

ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[ ] TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[X]

NOTES

Samples for PCB Aroclors, VOCs, Metals and TSS, Temperature increase may be due to low flow rate, not "turning over" flow-through cell fast enough.

SIGNATURE: [signature]

CHECKED BY:

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 10/3/12

PROJECT: TO-0010-07 | JOB NUMBER: New Bedford Groundwater | Bottle Time: 1400

MONITORING WELL ID: MW-03 | ACTIVITY TIME: START 1232 END 1509

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW: 13.56 ft ~~(TOR)~~ TOC

FINAL DTW: 18.07 ft ~~(TOR)~~ TOC

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: 0.72

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 0.91

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.79

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1250	14.65	150	19.02	0.989	6.50	2.83	4.11	32.1	0.49	25/5 CAM2 ~~26/4 27/3~~
1256	15.50	140	19.31	0.939	6.51	2.47	10.1	31.5	0.46	26/4 ~~27/3~~
1301	15.70	64	19.45	0.925	6.51	2.30	13.6	32.6	0.46	27/3
1306	16.02	~~30~~ 44	19.51	0.919	6.51	2.07	9.95	33.5	0.45	28/2
1311	16.14	44	19.64	0.915	6.50	1.77	6.89	34.2	0.45	28/2
1315	16.20	20	19.70	0.915	6.50	1.71	7.07	35.4	0.45	29/1
1320	16.24	30	19.80	0.915	6.50	1.56	8.23	36.1	0.45	29/1
1325	16.28	30	19.85	0.914	6.49	1.56	6.10	37.7	0.45	29/1
1330	16.28	30	19.90	0.914	6.49	1.49	6.41	39.0	0.45	29/1
1335	16.31	35	19.93	0.915	6.49	1.44	3.55	40.2	0.45	29/1
1340	16.34	30	20.00	0.916	6.49	1.47	2.47	42.1	0.45	29/1
1345	16.36	30	20.01	0.916	6.49	1.42	1.76	42.5	0.45	29/1
1350	16.38	30	20.08	0.916	6.49	1.38	1.50	43.3	0.45	29/1
~~1600~~			Samples							29/1
1400										
~~1457~~	18.1	30	19.61	2.171	6.82	1.91	3.71	26.1	1.29	29/1
				DS						

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[ ]	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[X]

NOTES

Slow recharge ≈ 30 ml/min

Samples for PCB Aroclors, VOCs, Metals, TSS

SIGNATURE: Dad Stur

CHECKED BY: _____

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 10/3/12

PROJECT: TU-0010-07

JOB NUMBER: New Bedford Groundwater

Bottle Time: 0955

MONITORING WELL ID: MW-4A

ACTIVITY TIME: START 0845 END 1159

WATER LEVEL / PUMP DATA

INITIAL DTW: 10.47 ft (~~TOR~~) TOC

FINAL DTW: 13.47 ft (TOR)

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: 0.48

PUMP TYPE: [ ] - PERISTALTIC; [X] - BLADDER

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 1.4

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.34

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO* (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
0853	12.04	180	17.94	5.629	6.89	3.01	11.1	-79.4	3.07	CPM 2 20/10
0858	12.23	88	17.52	5.629	6.87	13.89	5.73	-161.8	3.06	26/4
0904	12.56	120	17.56	5.629	6.86	16.80	5.80	-190.1	3.06	25/5
0909	12.76	96	17.57	5.625	6.84	20.49	5.24	-207.1	3.06	26/4
0914	12.85	90	17.56	5.614	6.82	22.00	4.44	-219.4	3.06	27/3
0919	12.82	70	17.55	5.579	6.80	25.37	3.25	-226.6	3.03	27/3
0926	12.84	70	17.63	5.533	6.79	27.72	3.20	-226.0	3.01	27/3
0931	12.84	70	17.69	5.478	6.80	28.04	2.43	-233.1	2.97	27/3
0937	12.87	70	17.68	5.453	6.80	26.96	2.53	-236.7	2.96	27/3
0943	12.88	70	17.71	5.403	6.83	44.83	2.40	-237.4	2.93	27/3
0948	12.88	70	17.75	5.395	6.82	37.50	2.32	-232.2	2.93	27/3
0955	Samples									DS ~~26/4~~ 27/3
~~1148~~ DS										
1148	13.25	70	18.75	4.984	7.00	X	2.54	-16.3	2.69	27/3

DS

ANALYTICAL PARAMETERS

ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[ ] TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[X]

NOTES

DO probe malfunction, water in flow-through cell has micro bubbles, DO probe failed recalibration after sampling and was replaced in the field with new probe.

Samples for PCB Aroclor, VOC, Metals, TSS + REP

SIGNATURE: [signature]

CHECKED BY:

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 10/3/12

PROJECT: New Bedford Groundwater

JOB NUMBER: TO-0010-07

Bottle Time: 1045

MONITORING WELL ID: MW-5

ACTIVITY TIME: START 0815 END 1200

WATER LEVEL / PUMP DATA

INITIAL DTW: 9.47 ft (TOC)

FINAL DTW: 11.5 ft (TOR)

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: 0.37 g/ft

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 1.6

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.23

PUMP TYPE

- [ ] PERISTALTIC
- [X] BLADDER

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
845	9.18	Pump On								
851	10.06	84	17.6	1.649	6.04	4.22	11.5	-22.5	0.84	
856	10.4	78	17.5	2.575	6.54	1.45	11.6	-35.9	1.34	
901	10.5	38	17.48	2.573	6.77	0.97	9.39	-40.2	1.34	
906	10.52	44	17.59	2.573	6.88	0.79	8.80	-43.6	1.34	
911	10.60	50	17.64	2.586	6.98	0.65	6.09	-43.4	1.34	
916	10.62	52	17.68	2.600	7.10	0.53	5.98	-49.9	1.35	
921	10.67	52	17.69	2.612	7.18	0.47	4.84	-57.3	1.36	
927	10.70	44	17.66	2.650	7.27	0.42	4.24	-67.2	1.38	
931	10.80	44	17.59	2.699	7.32	0.38	3.97	-77.3	1.41	
936	10.82	64	17.52	2.754	7.35	0.38	3.65	-83.6	1.44	
941	10.85	50	17.53	2.783	7.37	0.34	5.13	-90.4	1.45	
946	10.76	58	17.64	2.789	7.39	0.31	2.60	-94.6	1.45	
951	10.74	70	17.74	2.835	7.42	0.28	1.76	-99.7	1.48	
956	10.80	70	17.84	2.905	7.45	0.28	1.41	-104.9	1.53	
1001	10.80	40	17.78	2.988	7.51	0.30	1.64	-116	1.56	
1006	10.98	50	17.66	3.043	7.55	0.27	2.99	-133	1.60	
1011	10.90	58	17.68	3.058	7.57	0.23	1.40	-141	1.60	
1016	10.93	44	17.70	3.096	7.59	0.23	1.34	-146	1.63	
1021	10.97	40	17.74	3.151	7.63	0.23	3.52	-153	1.65	
1026	10.99	44	17.76	3.183	7.65	0.23	3.73	-162	1.68	
1031	10.99	42	17.73	3.226	7.68	0.23	2.51	-173	1.70	

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[X]	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[X]

NOTES

Depth 19.22 ft BTOC

SIGNATURE: [signature]

CHECKED BY: [signature]

\\Whgs003\Shared\Jobs\C-Task Orders\TO-0010-07_NB Harbor Monitoring (2012 MOD)\FSP, QAPP, APP, Log sheets\Log Sheets\Field_Form_LOW_FLOW_UPDATE

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 10/3/12

PROJECT: New Bedford | JOB NUMBER: TO-0010-07 | Bottle Time: 1045

MONITORING WELL ID: MW-5 | ACTIVITY TIME: START 0815 END 1200

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW: 9.47 ft (TOR) | FINAL DTW: 11.5 ft (TOR) | DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: 0.37

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 1.6 | RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.23

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1036	11.0	45	17.75	3.240	7.71	0.23	2.91	-177	1.70	
1041	11.02	44	17.76	3.264	7.72	0.24	2.78	-179	1.72	
1045	Sampled									
1155	11.5	50	19.15	3.355	7.91	0.94	4.00	-162	1.77	

MAB

ANALYTICAL PARAMETERS

ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[X] TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[X]

NOTES: Riser cap is missing

SIGNATURE: Matthew Barlow

CHECKED BY: David Janik

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 10/3/12

PROJECT: New Bedford | JOB NUMBER: TO-0010-07 | Bottle Time: 1430

MONITORING WELL ID: MW-6 | ACTIVITY TIME: START 1255 END 1530

WATER LEVEL / PUMP DATA

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

INITIAL DTW: 12.58 ft (TOR) | FINAL DTW: 13.41 ft (TOR) | DRAWDOWN VOL = (INITIAL - FINAL) X 0.16 gal/ft: 0.15

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 0.75 | RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.2

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1324	12.45	Pump On								
1333	13.13	56	19.64	0.920	7.38	6.00	58.7	-62.4	0.45	
1338	13.20	56	19.61	0.848	7.22	2.87	57.1	-76	0.42	
1343	13.28	50	19.29	0.799	7.20	1.80	48.3	-89.5	0.39	
1348	13.29	50	19.28	0.784	7.19	1.52	44.7	-93.8	0.38	
1353	13.31	52	19.20	0.767	7.20	1.23	38.6	-98.4	0.38	
1358	13.31	52	19.09	0.730	7.21	1.06	34.5	-106	0.36	
1403	13.33	52	19.04	0.727	7.23	0.94	29.2	-108	0.36	
1408	13.35	52	19.02	0.725	7.24	0.89	26.7	-104	0.36	
1413	13.37	52	19.05	0.725	7.25	0.87	25.2	-101	0.35	
1418	13.40	52	19.04	0.725	7.26	0.85	23.9	-97.2	0.36	
1423	13.41	52	18.99	0.725	7.27	0.84	22.4	-102	0.36	
1430	Sampled									

MS MSD

ANALYTICAL PARAMETERS

	ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[X]	TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[X]

NOTES

SIGNATURE: [signature]

CHECKED BY: [signature]

CONSULTANT: Woods Hole Group, INC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

Date: 10/3/12

PROJECT: New Bedford

JOB NUMBER: TO-0010-07

Bottle Time: 1630

MONITORING WELL ID: MW-7A

ACTIVITY TIME: START 1550 END 1730

WATER LEVEL / PUMP DATA

INITIAL DTW: 10.75 ft (TOR)

FINAL DTW: 11.70 ft (TOR)

DRAWDOWN VOL INITIAL - FINAL X 0.16 gal/ft: 0.04

PUMP TYPE: [ ] - PERISTALTIC [X] - BLADDER

TOTAL VOLUME PURGED ml/m X minutes X 0.00026 gal/L: 0.6

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME: 0.07

PURGE DATA

TIME	DTW (ft)	PURGE RATE (ml/m)	TEMP (Deg. C)	SPECIFIC CONDUCTANCE (mS/cm)	pH	DO (mG/L)	TURBIDITY (NTU)	ORP (mV)	SALINITY (ppt)	COMMENTS
1555	11.42									
1556	11.55	144	19.54	0.814	6.97	7.99	4.01	3.9	0.4	
1601	11.56	50	19.04	0.811	6.62	3.25	1.73	12.6	0.4	
1606	11.56	50	19.35	0.801	6.54	2.60	1.50	13.3	0.39	
1611	11.56	60	19.56	0.793	6.60	2.67	1.26	8.0	0.39	
1616	11.58	112	19.46	0.791	6.60	2.83	0.89	6.2	0.39	
1621	11.60	72	19.13	0.789	6.56	2.73	0.80	6.1	0.39	
1630	Sampled									

MAB

ANALYTICAL PARAMETERS

ANALYSIS	ANALYSIS METHOD	PRESERVATION METHOD	BOTTLE TYPE/ VOLUME REQUIRED	SAMPLE COLLECTED
[X] TCL VOCs + MTBE	524.2	HCl	3 - 40 mL	[X]

NOTES: Collected QA split & MS/MSD samples Here

SIGNATURE: [signature]

CHECKED BY: [signature]

FIELD INSTRUMENTATION CALIBRATION RECORD

Woods Hole Group, INC

PROJECT: New Bedford Groundwater | DATE: 10/3/12 | TIME: 0630

CREW ID OR TASK ID: TO-0010-07 | JOB NUMBER:

SAMPLER SIGNATURE: Dick Hunt | CHECKED BY:

EQUIPMENT CALIBRATION

METER TYPE: YSI
MODEL NO.: 556-02
UNIT ID NO.: 11B100653

TURBIDITY
METER TYPE: Hach 2100Q
MODEL NO.: 2100Q
UNIT ID NO.: 110800C11560

		AM CALIBRATION STANDARD VALUE	AM CALIBRATION METER VALUE	PM CALIBRATION CHECK STANDARD VALUE	PM CALIBRATION CHECK METER VALUE	ACCEPTANCE CRITERIA **
pH units		4	4.13	4	3.88	+/- 10% of standard
		7	6.90	7	6.89	
pH units		10	9.95	10	9.98	+/- 10% of standard
Redox	+/- mV	229	228.9	229	229.4	see note 1
Conductivity	mS/cm	10 DGS 1	0.981	1	0.982	+/- 10% of standard
DO	mg/L *		9.33		9.02	+/- 10% of standard
Temperature	deg. C		21.01		20.12	
TURBIDITY						
	NTU (low)	10	9.89	10	9.75	within 0.3 NTU of
		20	19.6	20	19.7	the standard
	NTU (high)	100	95.9	100	96.6	+/- 10% of standard
		800	748	800	750	

Check One

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.

☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above (see notes below).

MATERIALS RECORD

Calibration Fluids / Standard Source: MACTEC FOS

Disposable Filter Type: _____ _____

Lot Number

~~pH~~/Conductivity: 2061974
pH ~~ORP~~: 2020173, 1081860, 2052374
Turbidity: _____
Redox/Other: 1092917

NOTES:

DO probe failed at first monitoring well and was replaced in the field with new probe.

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the parameter was not calibrated to the acceptance criteria.

1 = within 35 millivolts of the value of the standard (usually standard is 240 mV, so meter should read between 205 and 275).

* = standard based on saturated headspace at given temperature

FIELD INSTRUMENTATION CALIBRATION RECORD

Woods Hole Group, INC

PROJECT: New Bedford Groundwater | DATE: 10/3/12 | TIME: 0630

CREW ID OR TASK ID: TO-0010-07 | JOB NUMBER:

SAMPLER SIGNATURE: Dark Stone | CHECKED BY:

EQUIPMENT CALIBRATION			AM CALIBRATION STANDARD VALUE	AM CALIBRATION METER VALUE	PM CALIBRATION CHECK STANDARD VALUE	PM CALIBRATION CHECK METER VALUE	ACCEPTANCE CRITERIA **
METER TYPE YSI							
MODEL NO. 556-02							
UNIT ID NO. 10J101465	pH	units	4	4.01	4	4.06	+/- 10% of standard
			7	7.01	7	7.07	
	pH	units	10	9.99	10	10.03	+/- 10% of standard
	Redox	+/- mV	229	225.9	229	224.1	see note 1
	Conductivity	mS/cm	10 DGS	0.991	1	1.042	+/- 10% of standard
	DO	mg/L *		10.78		11.30	+/- 10% of standard
	Temperature	deg. C		21.26		20.39	
TURBIDITY							
METER TYPE Hach 2100Q		NTU (low)	10	9.75	10	9.53	within 0.3 NTU of
MODEL NO. 2100Q			20	19.5	20	18.8	the standard
UNIT ID NO. 110200007644		NTU (high)	100	96.5	100	96.7	+/- 10% of standard
			800	753	800	746	

Check One

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.

☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above (see notes below).

MATERIALS RECORD

Calibration Fluids / Standard Source: MACTEC FOS

Disposable Filter Type: _____ _____

Lot Number

~~pH~~/Conductivity → 2061974

pH ~~ORR~~ 2020173, 7081860, 2052374

Turbidity _____

Redox Other 1092417

NOTES:

Turbidity standard of 20 NTU was calibrated to 19.53 and 18.8 NTU, less than standard value. 10 NTU standard in evening was 9.53 NTU, when acceptance criteria is within 0.3 NTU. Professional judgement would suggest these are insignificant deviations.

** = If the meter reading is not within acceptance criteria, clean or replace probe and re-calibrate, or use a different meter if available. If project requirements necessitate use of the instrument, clearly document on all data sheets and log book entries that the parameter was not calibrated to the acceptance criteria.

1 = within 35 millivolts of the value of the standard (usually standard is 240 mV, so meter should read between 205 and 275).

* = standard based on saturated headspace at given temperature

APPENDIX B: ALPHA ANALYTICAL LABORATORY REPORTS

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TABLE OF CONTENTS

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 consists of 20 samples. Below is a table summarizing which SDGs are associated with each sampling event as well as the analytes reported.

SDG	Sampling Event	Analytes Reported
L1211857	Summer – July	PCB Aroclors, VOCs, Metals (Cd, Cr, Cu, Pb), TSS
L1217887	Fall – October	PCB Aroclors, VOCs, Metals (Cd, Cr, Cu, Pb), TSS

A SDG is made up of three data files. The table below, using SDG L1211857 as an example, describes the contents of each SDG file.

File name	File type	Description
L1211857_coc	.PDF	Scanned copy of the chain of custody.
L1211857_nbh	.CSV	Comma-delimited spreadsheet of analytical data, formatted for the New Bedford Harbor Database.
L1211857_pdf	.PDF	SDG laboratory report.

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

ANALYTICAL REPORT

Lab Number:	L1211857
Client:	Woods Hole Group 81 Technology Park Drive East Falmouth, MA 02536
ATTN:	Dack Stuart
Phone:	(508) 540-8080
Project Name:	NEW BEDFORD GROUNDWATER
Project Number:	TO-0010-07
Report Date:	07/19/12

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1211857-01	MW-005-070212	NEW BEDFORD, MA	07/02/12 09:10
L1211857-02	MW-005-070212-REP	NEW BEDFORD, MA	07/02/12 09:45
L1211857-03	MW-04A-070212	NEW BEDFORD, MA	07/02/12 09:45
L1211857-04	MW-003-070212	NEW BEDFORD, MA	07/02/12 11:50
L1211857-05	MW-006-070212	NEW BEDFORD, MA	07/02/12 14:00
L1211857-06	MW-001-070212	NEW BEDFORD, MA	07/02/12 14:50
L1211857-07	MW-07A-070212	NEW BEDFORD, MA	07/02/12 16:10
L1211857-08	EB-001-070212	NEW BEDFORD, MA	07/02/12 16:45
L1211857-09	TB-070212	NEW BEDFORD, MA	06/26/12 00:00

Project Name:	NEW BEDFORD GROUNDWATER	**Lab Number:**	L1211857
Project Number:	TO-0010-07	**Report Date:**	07/19/12

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 GROUNDWATER	**Lab Number:**	L1211857
Project Number:	TO-0010-07	**Report Date:**	07/19/12

Case Narrative (continued)

Volatile Organics by GC/MS

The WG548511-4/-5 MS/MSD recoveries, performed on L1211857-07, were outside the acceptance criteria for several compounds. The results of the sample utilized for the MS/MSD are considered to have a potentially high bias for Carbon tetrachloride (138%)/(136%), Trichlorofluoromethane (MS 135%) Acetone (MS 143%) and a potentially low bias for Bromomethane (52%)/(66%), Naphthalene (56%)/(64%), 1,2,3-Trichlorobenzene (69%)/(69%) and 2-Hexanone (MSD67%). The WG548511-5 MS/MSD RPDs, performed on L1211857-07, are above the acceptance criteria for Bromomethane (24%) and Acetone (33%).

The WG547411-1 LCS recoveries, associated with L1211857-09, are below the individual acceptance criteria for Naphthalene (66%), but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for these compounds. The WG547411-2 LCS/LCSD RPD(s), associated with L1211857-09, are above the acceptance criteria for 1,2-Dibromo-3-chloropropane (34%) and Hexachlorobutadiene (25%).

The WG548511-1/-2 LCS/LCSD recoveries, associated with L1211857-06,02,03,08,04,01,05 and 07, are below the individual acceptance criteria for Naphthalene (69%)/(69%), but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for these compounds.

Total Metals

The WG547151-3 Laboratory Duplicate RPD, performed on L1211857-07, is above the acceptance criteria for Copper (31%); however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

Project Name:	NEW BEDFORD GROUNDWATER	**Lab Number:**	L1211857
Project Number:	TO-0010-07	**Report Date:**	07/19/12

Case Narrative (continued)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cynthia McQueen

Title: Technical Director/Representative Date: 07/19/12

ORGANICS

VOLATILES

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-01	Date Collected:	07/02/12 09:10
Client ID:	MW-005-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 13:42		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-01 Date Collected: 07/02/12 09:10

Client ID: MW-005-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-01 Date Collected: 07/02/12 09:10

Client ID: MW-005-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	118		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-02	Date Collected:	07/02/12 09:45
Client ID:	MW-005-070212-REP	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 14:15		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-02 Date Collected: 07/02/12 09:45

Client ID: MW-005-070212-REP Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-02 Date Collected: 07/02/12 09:45

Client ID: MW-005-070212-REP Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	112		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-03	Date Collected:	07/02/12 09:45
Client ID:	MW-04A-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 14:47		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-03 Date Collected: 07/02/12 09:45

Client ID: MW-04A-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-03 Date Collected: 07/02/12 09:45

Client ID: MW-04A-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	125		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-04	Date Collected:	07/02/12 11:50
Client ID:	MW-003-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 15:19		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-04 Date Collected: 07/02/12 11:50

Client ID: MW-003-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-04 Date Collected: 07/02/12 11:50

Client ID: MW-003-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	117		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-05	Date Collected:	07/02/12 14:00
Client ID:	MW-006-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 15:52		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-05 Date Collected: 07/02/12 14:00

Client ID: MW-006-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-05 Date Collected: 07/02/12 14:00

Client ID: MW-006-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	116		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-06	Date Collected:	07/02/12 14:50
Client ID:	MW-001-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 16:24		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-06 Date Collected: 07/02/12 14:50

Client ID: MW-001-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-06 Date Collected: 07/02/12 14:50

Client ID: MW-001-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	116		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-07	Date Collected:	07/02/12 16:10
Client ID:	MW-07A-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 13:10		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-07 Date Collected: 07/02/12 16:10

Client ID: MW-07A-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-07 Date Collected: 07/02/12 16:10

Client ID: MW-07A-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	113		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-08	Date Collected:	07/02/12 16:45
Client ID:	EB-001-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/13/12 16:57		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-08 Date Collected: 07/02/12 16:45

Client ID: EB-001-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-08 Date Collected: 07/02/12 16:45

Client ID: EB-001-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	113		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-09	Date Collected:	06/26/12 00:00
Client ID:	TB-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/10/12 15:18		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-09 Date Collected: 06/26/12 00:00

Client ID: TB-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-09 Date Collected: 06/26/12 00:00

Client ID: TB-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	112		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 07/10/12 09:56
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 09 Batch: WG547411-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 07/10/12 09:56
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 09 Batch: WG547411-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 07/10/12 09:56
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 09 Batch: WG547411-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	109		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 07/13/12 08:52
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-08 Batch: WG548511-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 07/13/12 08:52
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-08 Batch: WG548511-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 07/13/12 08:52
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-08 Batch: WG548511-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 09 Batch: WG547411-1 WG547411-2								
Methylene chloride	96		95		70-130	2		20
1,1-Dichloroethane	94		92		70-130	6		20
Chloroform	101		106		70-130	6		20
Carbon tetrachloride	112		113		70-130	8		20
1,2-Dichloropropane	90		90		70-130	0		20
Dibromochloromethane	97		93		70-130	0		20
1,1,2-Trichloroethane	94		87		70-130	12		20
Tetrachloroethene	102		95		70-130	0		20
Chlorobenzene	95		90		70-130	5		20
Trichlorofluoromethane	109		111		70-130	4		20
1,2-Dichloroethane	110		108		70-130	2		20
1,1,1-Trichloroethane	108		111		70-130	7		20
Bromodichloromethane	104		106		70-130	11		20
trans-1,3-Dichloropropene	86		84		70-130	2		20
cis-1,3-Dichloropropene	101		98		70-130	3		20
1,1-Dichloropropene	96		96		70-130	6		20
Bromoform	92		94		70-130	5		20
1,1,2,2-Tetrachloroethane	86		88		70-130	3		20
Benzene	97		96		70-130	2		20
Toluene	94		90		70-130	0		20
Ethylbenzene	93		86		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 09 Batch: WG547411-1 WG547411-2								
Chloromethane	80		84		70-130	2		20
Bromomethane	85		84		70-130	9		20
Vinyl chloride	91		97		70-130	6		20
Chloroethane	97		99		70-130	1		20
1,1-Dichloroethene	106		111		70-130	7		20
trans-1,2-Dichloroethene	103		100		70-130	5		20
Trichloroethene	107		102		70-130	3		20
1,2-Dichlorobenzene	89		94		70-130	2		20
1,3-Dichlorobenzene	89		98		70-130	9		20
1,4-Dichlorobenzene	96		98		70-130	9		20
Methyl tert butyl ether	103		97		70-130	5		20
p/m-Xylene	95		88		70-130	4		20
o-Xylene	94		90		70-130	0		20
cis-1,2-Dichloroethene	102		103		70-130	5		20
Dibromomethane	110		105		70-130	7		20
1,2,3-Trichloropropane	91		89		70-130	3		20
Styrene	98		89		70-130	7		20
Dichlorodifluoromethane	100		98		70-130	5		20
Acetone	123		111		70-130	6		20
Carbon disulfide	97		106		70-130	20		20
2-Butanone	113		97		70-130	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 09 Batch: WG547411-1 WG547411-2								
4-Methyl-2-pentanone	93		80		70-130	11		20
2-Hexanone	87		77		70-130	13		20
Bromochloromethane	106		114		70-130	3		20
Tetrahydrofuran	95		83		70-130	12		20
2,2-Dichloropropane	107		106		70-130	6		20
1,2-Dibromoethane	100		94		70-130	4		20
1,3-Dichloropropane	88		83		70-130	7		20
1,1,1,2-Tetrachloroethane	99		95		70-130	1		20
Bromobenzene	88		100		70-130	11		20
n-Butylbenzene	89		91		70-130	14		20
sec-Butylbenzene	93		93		70-130	10		20
tert-Butylbenzene	93		99		70-130	12		20
o-Chlorotoluene	91		96		70-130	11		20
p-Chlorotoluene	88		94		70-130	9		20
1,2-Dibromo-3-chloropropane	78		103		70-130	**34**	Q	20
Hexachlorobutadiene	97		114		70-130	**25**	Q	20
Isopropylbenzene	100		88		70-130	3		20
p-Isopropyltoluene	95		99		70-130	14		20
Naphthalene	**66**	Q	77		70-130	3		20
n-Propylbenzene	91		91		70-130	10		20
1,2,3-Trichlorobenzene	77		91		70-130	15		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 09 Batch: WG547411-1 WG547411-2								
1,2,4-Trichlorobenzene	78		82		70-130	2		20
1,3,5-Trimethylbenzene	92		97		70-130	13		20
1,2,4-Trimethylbenzene	91		92		70-130	8		20
Ethyl ether	107		102		70-130	13		20
Isopropyl Ether	90		86		70-130	1		20
Ethyl-Tert-Butyl-Ether	96		91		70-130	3		20
Tertiary-Amyl Methyl Ether	98		92		70-130	6		20
1,4-Dioxane	100		114		70-130	15		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		109		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	109		103		70-130
Toluene-d8	97		95		70-130
4-Bromofluorobenzene	96		98		70-130
Dibromofluoromethane	105		115		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 Batch: WG548511-1 WG548511-2								
Methylene chloride	97		96		70-130	1		20
1,1-Dichloroethane	92		89		70-130	3		20
Chloroform	101		97		70-130	4		20
Carbon tetrachloride	112		110		70-130	2		20
1,2-Dichloropropane	88		89		70-130	1		20
Dibromochloromethane	89		90		70-130	1		20
1,1,2-Trichloroethane	83		88		70-130	6		20
Tetrachloroethene	91		88		70-130	3		20
Chlorobenzene	89		89		70-130	0		20
Trichlorofluoromethane	113		111		70-130	2		20
1,2-Dichloroethane	104		102		70-130	2		20
1,1,1-Trichloroethane	104		103		70-130	1		20
Bromodichloromethane	105		100		70-130	5		20
trans-1,3-Dichloropropene	79		80		70-130	1		20
cis-1,3-Dichloropropene	96		98		70-130	2		20
1,1-Dichloropropene	91		93		70-130	2		20
Bromoform	88		85		70-130	3		20
1,1,2,2-Tetrachloroethane	84		75		70-130	11		20
Benzene	93		92		70-130	1		20
Toluene	86		83		70-130	4		20
Ethylbenzene	85		83		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 Batch: WG548511-1 WG548511-2								
Chloromethane	79		80		70-130	1		20
Bromomethane	90		88		70-130	2		20
Vinyl chloride	96		91		70-130	5		20
Chloroethane	95		96		70-130	1		20
1,1-Dichloroethene	109		102		70-130	7		20
trans-1,2-Dichloroethene	99		97		70-130	2		20
Trichloroethene	96		98		70-130	2		20
1,2-Dichlorobenzene	85		84		70-130	1		20
1,3-Dichlorobenzene	88		86		70-130	2		20
1,4-Dichlorobenzene	90		86		70-130	5		20
Methyl tert butyl ether	93		92		70-130	1		20
p/m-Xylene	85		85		70-130	0		20
o-Xylene	86		85		70-130	1		20
cis-1,2-Dichloroethene	97		98		70-130	1		20
Dibromomethane	90		103		70-130	13		20
1,2,3-Trichloropropane	82		77		70-130	6		20
Styrene	88		86		70-130	2		20
Dichlorodifluoromethane	98		95		70-130	3		20
Acetone	96		81		70-130	17		20
Carbon disulfide	99		102		70-130	3		20
2-Butanone	91		79		70-130	14		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 Batch: WG548511-1 WG548511-2								
4-Methyl-2-pentanone	82		87		70-130	6		20
2-Hexanone	75		76		70-130	1		20
Bromochloromethane	109		110		70-130	1		20
Tetrahydrofuran	83		77		70-130	8		20
2,2-Dichloropropane	106		102		70-130	4		20
1,2-Dibromoethane	88		83		70-130	6		20
1,3-Dichloropropane	79		81		70-130	3		20
1,1,1,2-Tetrachloroethane	88		90		70-130	2		20
Bromobenzene	87		86		70-130	1		20
n-Butylbenzene	82		79		70-130	4		20
sec-Butylbenzene	84		82		70-130	2		20
tert-Butylbenzene	87		84		70-130	4		20
o-Chlorotoluene	89		84		70-130	6		20
p-Chlorotoluene	84		82		70-130	2		20
1,2-Dibromo-3-chloropropane	84		91		70-130	8		20
Hexachlorobutadiene	108		95		70-130	13		20
Isopropylbenzene	87		83		70-130	5		20
p-Isopropyltoluene	86		87		70-130	1		20
Naphthalene	**69**	Q	**69**	Q	70-130	0		20
n-Propylbenzene	82		79		70-130	4		20
1,2,3-Trichlorobenzene	70		74		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 Batch: WG548511-1 WG548511-2								
1,2,4-Trichlorobenzene	70		72		70-130	3		20
1,3,5-Trimethylbenzene	87		87		70-130	0		20
1,2,4-Trimethylbenzene	86		83		70-130	4		20
Ethyl ether	100		96		70-130	4		20
Isopropyl Ether	85		83		70-130	2		20
Ethyl-Tert-Butyl-Ether	87		88		70-130	1		20
Tertiary-Amyl Methyl Ether	89		90		70-130	1		20
1,4-Dioxane	106		113		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		104		70-130
Toluene-d8	90		89		70-130
4-Bromofluorobenzene	99		95		70-130
Dibromofluoromethane	112		102		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG548511-4 WG548511-5 QC Sample: L1211857-07 Client ID: MW-07A-070212												
Methylene chloride	ND	10	10	100		10	102		70-130	0		20
1,1-Dichloroethane	ND	10	10	103		10	100		70-130	0		20
Chloroform	ND	10	11	114		11	112		70-130	0		20
Carbon tetrachloride	ND	10	14	**138**	Q	14	**136**	Q	70-130	0		20
1,2-Dichloropropane	ND	10	10	100		9.3	93		70-130	7		20
Dibromochloromethane	ND	10	10	100		10	102		70-130	0		20
1,1,2-Trichloroethane	ND	10	8.7	87		9.2	92		70-130	6		20
Tetrachloroethene	ND	10	11	107		10	105		70-130	10		20
Chlorobenzene	ND	10	9.4	94		9.9	99		70-130	5		20
Trichlorofluoromethane	ND	10	14	**135**	Q	13	130		70-130	7		20
1,2-Dichloroethane	ND	10	12	115		12	119		70-130	0		20
1,1,1-Trichloroethane	ND	10	13	126		13	127		70-130	0		20
Bromodichloromethane	ND	10	12	115		12	115		70-130	0		20
trans-1,3-Dichloropropene	ND	10	8.8	88		8.9	89		70-130	1		20
cis-1,3-Dichloropropene	ND	10	10	103		9.8	98		70-130	2		20
1,1-Dichloropropene	ND	10	11	108		11	108		70-130	0		20
Bromoform	ND	10	9.3	93		9.7	97		70-130	4		20
1,1,2,2-Tetrachloroethane	ND	10	8.6	86		8.1	81		70-130	6		20
Benzene	ND	10	10	104		10	103		70-130	0		20
Toluene	ND	10	9.6	96		9.7	97		70-130	1		20
Ethylbenzene	ND	10	9.4	94		9.9	99		70-130	5		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG548511-4 WG548511-5 QC Sample: L1211857-07 Client ID: MW-07A-070212												
Chloromethane	ND	10	9.4	94		9.6	96		70-130	2		20
Bromomethane	ND	10	5.2	**52**	Q	6.6	**66**	Q	70-130	**24**	Q	20
Vinyl chloride	ND	10	11	108		11	106		70-130	0		20
Chloroethane	ND	10	11	109		11	112		70-130	0		20
1,1-Dichloroethene	ND	10	12	125		12	123		70-130	0		20
trans-1,2-Dichloroethene	ND	10	11	109		12	117		70-130	9		20
Trichloroethene	ND	10	11	113		11	114		70-130	0		20
1,2-Dichlorobenzene	ND	10	9.4	94		8.8	88		70-130	7		20
1,3-Dichlorobenzene	ND	10	9.7	97		9.0	90		70-130	7		20
1,4-Dichlorobenzene	ND	10	9.9	99		9.0	90		70-130	10		20
Methyl tert butyl ether	ND	10	9.9	99		9.5	95		70-130	4		20
p/m-Xylene	ND	20	19	96		20	100		70-130	5		20
o-Xylene	ND	20	19	94		20	99		70-130	5		20
cis-1,2-Dichloroethene	ND	10	11	106		11	109		70-130	0		20
Dibromomethane	ND	10	11	111		10	102		70-130	10		20
1,2,3-Trichloropropane	ND	10	9.0	90		8.8	88		70-130	2		20
Styrene	ND	20	19	96		20	100		70-130	5		20
Dichlorodifluoromethane	ND	10	12	117		11	115		70-130	9		20
Acetone	ND	10	14	**143**	Q	10	101		70-130	**33**	Q	20
Carbon disulfide	ND	10	13	128		12	125		70-130	8		20
2-Butanone	ND	10	8.0	80		7.9	79		70-130	1		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG548511-4 WG548511-5 QC Sample: L1211857-07 Client ID: MW-07A-070212												
4-Methyl-2-pentanone	ND	10	8.4	84		8.2	83		70-130	2		20
2-Hexanone	ND	10	7.1	71		6.7	**67**	Q	70-130	6		20
Bromochloromethane	ND	10	12	117		11	113		70-130	9		20
Tetrahydrofuran	ND	10	8.9	89		8.5	85		70-130	5		20
2,2-Dichloropropane	ND	10	11	115		11	111		70-130	0		20
1,2-Dibromoethane	ND	10	9.4	94		9.2	92		70-130	2		20
1,3-Dichloropropane	ND	10	8.4	84		8.6	86		70-130	2		20
1,1,1,2-Tetrachloroethane	ND	10	10	100		11	107		70-130	10		20
Bromobenzene	ND	10	9.7	97		8.6	86		70-130	12		20
n-Butylbenzene	ND	10	9.3	93		8.7	87		70-130	7		20
sec-Butylbenzene	ND	10	9.8	99		9.3	93		70-130	5		20
tert-Butylbenzene	ND	10	10	102		9.4	94		70-130	6		20
o-Chlorotoluene	ND	10	9.7	97		9.1	91		70-130	6		20
p-Chlorotoluene	ND	10	9.5	95		8.6	86		70-130	10		20
1,2-Dibromo-3-chloropropane	ND	10	9.9	99		8.3	84		70-130	18		20
Hexachlorobutadiene	ND	10	10	103		9.5	95		70-130	5		20
Isopropylbenzene	ND	10	9.7	97		10	102		70-130	3		20
p-Isopropyltoluene	ND	10	10	101		9.3	93		70-130	7		20
Naphthalene	ND	10	5.6	**56**	Q	6.4	**64**	Q	70-130	13		20
n-Propylbenzene	ND	10	9.6	96		8.9	89		70-130	8		20
1,2,3-Trichlorobenzene	ND	10	6.9	**69**	Q	6.9	**69**	Q	70-130	0		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG548511-4 WG548511-5 QC Sample: L1211857-07 Client ID: MW-07A-070212												
1,2,4-Trichlorobenzene	ND	10	7.2	72		7.0	70		70-130	3		20
1,3,5-Trimethylbenzene	ND	10	9.8	98		9.0	90		70-130	9		20
1,2,4-Trimethylbenzene	ND	10	9.7	97		9.0	90		70-130	7		20
Ethyl ether	ND	10	11	112		11	107		70-130	0		20
Isopropyl Ether	ND	10	8.9	89		8.7	87		70-130	2		20
Ethyl-Tert-Butyl-Ether	ND	10	9.3	93		9.4	94		70-130	1		20
Tertiary-Amyl Methyl Ether	ND	10	9.6	96		9.5	95		70-130	1		20
1,4-Dioxane	ND	1000	860	86		1000	100		70-130	15		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		101		70-130
4-Bromofluorobenzene	97		90		70-130
Dibromofluoromethane	114		110		70-130
Toluene-d8	88		91		70-130

PCBS

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-01	Date Collected:	07/02/12 09:10
Client ID:	MW-005-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 12:56		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1242	ND		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	56	30-150
Decachlorobiphenyl	69	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-02	Date Collected:	07/02/12 09:45
Client ID:	MW-005-070212-REP	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 13:26		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1242	ND		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	58	30-150
Decachlorobiphenyl	67	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-03	Date Collected:	07/02/12 09:45
Client ID:	MW-04A-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 13:56		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1242	0.046		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	55	30-150
Decachlorobiphenyl	70	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-04	Date Collected:	07/02/12 11:50
Client ID:	MW-003-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 14:27		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	68	30-150
Decachlorobiphenyl	83	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-04	Date Collected:	07/02/12 11:50
Client ID:	MW-003-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 14:27		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1242	0.047		ug/l	0.010	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	68		30-150
Decachlorobiphenyl	83		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-05	Date Collected:	07/02/12 14:00
Client ID:	MW-006-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 14:57		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1242	ND		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	66	30-150
Decachlorobiphenyl	66	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-06	Date Collected:	07/02/12 14:50
Client ID:	MW-001-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 15:28		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1242	ND		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	67	30-150
Decachlorobiphenyl	68	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-07	Date Collected:	07/02/12 16:10
Client ID:	MW-07A-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/13/12 15:58		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1242	ND		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	83	30-150
Decachlorobiphenyl	69	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID:	L1211857-08	Date Collected:	07/02/12 16:45
Client ID:	EB-001-070212	Date Received:	07/03/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082	Extraction Date:	07/09/12 11:00
Analytical Date:	07/10/12 21:40		
Analyst:	JW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.010	--	1
Aroclor 1221	ND		ug/l	0.010	--	1
Aroclor 1232	ND		ug/l	0.010	--	1
Aroclor 1242	ND		ug/l	0.010	--	1
Aroclor 1248	ND		ug/l	0.010	--	1
Aroclor 1254	ND		ug/l	0.010	--	1
Aroclor 1260	ND		ug/l	0.010	--	1

Tetrachloro-meta-Xylene	68	30-150
Decachlorobiphenyl	55	30-150

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082
Analytical Date: 07/10/12 15:34
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 07/09/12 11:00

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Mansfield Lab for sample(s): 01-08 Batch: WG547062-1					
Aroclor 1016	ND		ug/l	0.010	--
Aroclor 1221	ND		ug/l	0.010	--
Aroclor 1232	ND		ug/l	0.010	--
Aroclor 1242	ND		ug/l	0.010	--
Aroclor 1248	ND		ug/l	0.010	--
Aroclor 1254	ND		ug/l	0.010	--
Aroclor 1260	ND		ug/l	0.010	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	52		30-150
Decachlorobiphenyl	60		30-150

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG547062-4 WG547062-5 QC Sample: L1211857-07 Client ID: MW-07A-070212												
Aroclor 1016	ND	0.5	0.361	72		0.393	79		40-140	8		50
Aroclor 1260	ND	0.5	0.394	79		0.458	92		40-140	15		50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
Decachlorobiphenyl	63		67		30-150
Tetrachloro-meta-Xylene	71		76		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Mansfield Lab Associated sample(s): 01-08 Batch: WG547062-2 WG547062-3								
Aroclor 1016	53		55		40-140	3		50
Aroclor 1260	73		69		40-140	6		50

Tetrachloro-meta-Xylene	46	45	30-150
Decachlorobiphenyl	69	64	30-150

METALS

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-01 Date Collected: 07/02/12 09:10

Client ID: MW-005-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:37	EPA 3020A	1,6020A	PD
Chromium, Total	0.005		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:37	EPA 3020A	1,6020A	PD
Copper, Total	0.004		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:37	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:37	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-02 Date Collected: 07/02/12 09:45

Client ID: MW-005-070212-REP Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:38	EPA 3020A	1,6020A	PD
Chromium, Total	0.003		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:38	EPA 3020A	1,6020A	PD
Copper, Total	0.004		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:38	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:38	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-03 Date Collected: 07/02/12 09:45

Client ID: MW-04A-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:44	EPA 3020A	1,6020A	PD
Chromium, Total	0.005		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:44	EPA 3020A	1,6020A	PD
Copper, Total	0.009		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:44	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:44	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-04 Date Collected: 07/02/12 11:50

Client ID: MW-003-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:46	EPA 3020A	1,6020A	PD
Chromium, Total	0.001		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:46	EPA 3020A	1,6020A	PD
Copper, Total	0.006		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:46	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:46	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-05 Date Collected: 07/02/12 14:00

Client ID: MW-006-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:47	EPA 3020A	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:47	EPA 3020A	1,6020A	PD
Copper, Total	0.001		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:47	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:47	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-06 Date Collected: 07/02/12 14:50

Client ID: MW-001-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	0.0007		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:48	EPA 3020A	1,6020A	PD
Chromium, Total	0.011		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:48	EPA 3020A	1,6020A	PD
Copper, Total	0.003		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:48	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:48	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-07 Date Collected: 07/02/12 16:10

Client ID: MW-07A-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:49	EPA 3020A	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:49	EPA 3020A	1,6020A	PD
Copper, Total	0.003		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:49	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:49	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-08 Date Collected: 07/02/12 16:45

Client ID: EB-001-070212 Date Received: 07/03/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:53	EPA 3020A	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:53	EPA 3020A	1,6020A	PD
Copper, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:53	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:53	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG547151-1										
Cadmium, Total	ND		mg/l	0.0005	--	1	07/07/12 14:30	07/12/12 11:35	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:35	1,6020A	PD
Copper, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:35	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	07/07/12 14:30	07/12/12 11:35	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG547151-2 SRM Lot Number: S1SPIKE								
Cadmium, Total	98		-		80-120	-		20
Chromium, Total	96		-		80-120	-		20
Copper, Total	100		-		80-120	-		20
Lead, Total	103		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG547151-4 QC Sample: L1211857-07 Client ID: MW-07A-070212												
Cadmium, Total	ND	0.5	0.4898	98		-	-		75-125	-		20
Chromium, Total	ND	1	1.04	104		-	-		75-125	-		20
Copper, Total	0.003	1	1.00	100		-	-		75-125	-		20
Lead, Total	ND	1	0.953	95		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG547151-3 QC Sample: L1211857-07 Client ID: MW-07A-070212						
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.003	0.002	mg/l	**31**	Q	20
Lead, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-01
Client ID: MW-005-070212
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 07/02/12 09:10
Date Received: 07/03/12
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 Suspended	3.20		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-02
Client ID: MW-005-070212-REP
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 07/02/12 09:45
Date Received: 07/03/12
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 Suspended	1.20		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-03
Client ID: MW-04A-070212
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 07/02/12 09:45
Date Received: 07/03/12
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 Suspended	2.50		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-04
Client ID: MW-003-070212
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 07/02/12 11:50
Date Received: 07/03/12
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 Suspended	20.8		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-05
Client ID: MW-006-070212
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 07/02/12 14:00
Date Received: 07/03/12
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 Suspended	14.2		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-06
Client ID: MW-001-070212
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 07/02/12 14:50
Date Received: 07/03/12
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 Suspended	1.80		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1211857
Report Date: 07/19/12

SAMPLE RESULTS

Lab ID: L1211857-07
Client ID: MW-07A-070212
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 07/02/12 16:10
Date Received: 07/03/12
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 Suspended	1.00		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1211857

Project Number: TO-0010-07 **Report Date:** 07/19/12

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab for sample(s): 01-07 Batch: WG546523-1										
Solids, Total Suspended	ND		mg/l	1.00	NA	1	-	07/05/12 15:00	30,2540D	ES

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1211857

Report Date: 07/19/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-07 Batch: WG546523-2								
Solids, Total Suspended	97		-		85-115	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG546523-3 QC Sample: L1211857-07 Client ID: MW-07A-070212						
Solids, Total Suspended	1.00	1.20	mg/l	18		20

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

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
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1211857-01A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-01B	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-01C	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-01D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-01E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-01F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-01G	Plastic 1000ml unpreserved	A	7	4.8	Y	Absent	A2-TSS-2540D(7)
L1211857-02A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-02B	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-02C	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-02D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-02E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-02F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-02G	Plastic 1000ml unpreserved	A	7	4.8	Y	Absent	A2-TSS-2540D(7)
L1211857-03A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-03B	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-03C	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-03D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-03E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-03F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1211857-03G	Plastic 1000ml unpreserved	B	7	3.7	Y	Absent	A2-TSS-2540D(7)
L1211857-04A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-04B	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-04C	Amber 1000ml unpreserved	C	7	2.4	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-04D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-04E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-04F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-04G	Plastic 1000ml unpreserved	B	7	3.7	Y	Absent	A2-TSS-2540D(7)
L1211857-05A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-05B	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-05C	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-05D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-05E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-05F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-05G	Plastic 1000ml unpreserved	B	7	3.7	Y	Absent	A2-TSS-2540D(7)
L1211857-06A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-06B	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-06C	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-06D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-06E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-06F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-06G	Plastic 1000ml unpreserved	B	7	3.7	Y	Absent	A2-TSS-2540D(7)
L1211857-07A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-07B	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-07C	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-07D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-07E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-07F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-07G	Plastic 1000ml unpreserved	B	7	3.7	Y	Absent	A2-TSS-2540D(7)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1211857
Report Date: 07/19/12

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1211857-07H	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-07I	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	-
L1211857-07J	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	-
L1211857-07K	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	-
L1211857-07L	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	-
L1211857-07N	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-07O	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-07P	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-08A	Plastic 500ml HNO3 preserved	A	<2	4.8	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1211857-08B	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-08C	Amber 1000ml unpreserved	B	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1211857-08D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-08E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-08F	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-09D	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)
L1211857-09E	Vial HCl preserved	A	N/A	4.8	Y	Absent	MCP-8260-10(14)

Container Comments

L1211857-07G	-O7 USED ENTIRE SAMPLE FOR DUP

*Values in parentheses indicate holding time in days

Project Name:	NEW BEDFORD GROUNDWATER	**Lab Number:**	L1211857
Project Number:	TO-0010-07	**Report Date:**	07/19/12

GLOSSARY

Acronyms

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 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.

Report Format: Data Usability Report

Project Name:	NEW BEDFORD GROUNDWATER	**Lab Number:**	L1211857
Project Number:	TO-0010-07	**Report Date:**	07/19/12

Data Qualifiers

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 GROUNDWATER	**Lab Number:**	L1211857
Project Number:	TO-0010-07	**Report Date:**	07/19/12

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.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

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 May 10, 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. Organic Parameters: EPA 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 3060A, 6020A, 7470A, 7471B, 9040B, 9045C, 7196A. 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, 9040B, 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, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15)

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, 245.7, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

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

Air & Emissions (EPA TO-15.)

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

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A,7471B, 7474. Organic Parameters: EPA3050B, 3540C, 3630C, 8270C, 8081B, 8015D, 8082A.)

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

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, 7196, 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, SM4500H-B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B.)

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 Mod, 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.

Certificate/Approval Program Summary

Last revised May 11, 2012 - Westboro 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-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D, Fecal Coliform-EC Medium 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterolert, E.Coli 9223.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics, Acid Extractables (Phenols), Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 624, 625, 8081A, 8082, 8330, 8151A, 8260B, 8270C, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9030B, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6010C, 6020, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9030B, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8081B, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 6010C, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050, 9065,1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, 8151A, 8015B, 8082, 8082A, 8081A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, 2540G, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C,6020, 6020A, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 624, 8260B, 8270C, 8270D, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012A, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C, 3546, 3580, 3580A, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 3005A, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 3005A,3015,1312,6010B,6010C,SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B, 8015B, 8015C.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix, SO4 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease

CHAIN OF CUSTODY

PAGE 1 OF 4

Date Rec'd in Lab:

ALPHA Job #: L1211857

ALPHA ANALYTICAL
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
East Falmouth, MA 02536
Phone: 508-540-8080
Fax: 508-540-1001
Email: DSTUART@WHGRP.COM

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ANALYSIS: PCB Aroclors | VOCs | Metals | TSS

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-1	MW-005-070212	7/2/12	0910	GW	DGS	X				Salinity = 1.12 ppt	2
	MW-005-070212	7/2/12					X				3
	MW-005-070212							X			1
	MW-005-070212								X		1
-2	MW-005-070212-REP		0945			X				Salinity = 1.12 ppt	2
	MW-005-070212-REP						X				3
	MW-005-070212-REP							X			1
	MW-005-070212-REP								X		1
-3	MW-04A-070212		0945			X				Salinity = 3.02	2
	MW-04A-070212		0945				X				3

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Dave Stuart	7/3/12 1210	[illegible]	7/3/12 12:10
[illegible]	7/3/12 1610	[illegible]	7/3/12 1650

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.

CHAIN OF CUSTODY

PAGE 2 OF 4

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1211857

Client Information

Client: WOODS HOLE Group
Address: 81 Technology Park
East Falmouth, MA 02536
Phone: 508-540-8080
Fax: 508-540-1001
Email: DSTUART@WHGRP.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ANALYSIS: PCB Aroclors | VOCs | Metals | TSS

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-3	MW-04A-070212	7/2/12	0945	GW	DGS			X		Salinity = 3.02	1
	MW-04A-070212								X		1
-4	MW-003-070212		1150			X				Salinity = 1.47	2
	MW-003-070212						X				3
	MW-003-070212							X			1
	MW-003-070212								X		1
-5	MW-006-070212		1400		MAB	X				Salinity = 0.33	2
	MW-006-070212						X				3
	MW-006-070212							X			1
	MW-006-070212								X		1

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Dad Stuart	7/3/12 1210		7/3/12 10:10
	7/3/12 1650		7/3/12 1650

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.

CHAIN OF CUSTODY

PAGE 3 OF 4

ALPHA ANALYTICAL

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

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

Date Rec'd in Lab:

ALPHA Job #: L1211857

Client Information

Client: Woods Hole Group

Address: 81 Technology Park
East Falmouth, MA 02536

Phone: 508-540-8080

Fax: 508-540-1001

Email: DSTUART@WHGRP.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater

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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ANALYSIS: PCB Aroclors | VOCs | Metals | TSS

SAMPLE HANDLING

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-6	MW-001-070212	7/2/12	1450	GW	DGS	X				Salinity = 0.43	2
	MW-001-070212						X				3
	MW-001-070212							X			1
↓	MW-001-070212								X		1
-7	MW-07A-070212		1610		MAB	X				Salinity = 0.36	2
	MW-07A-070212						X				3
	MW-07A-070212							X			1
	MW-07A-070212								X		1
	MW-07A-070212-MSMSD				DGS		X			Salinity = 0.36	3
↓	MW-07A-070212-MSMSD							X			1

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Dad Stuart	7/3/12 1210		7/3/12 12:10
	7/3/12 1650		7/3/12 1650

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.

CHAIN OF CUSTODY

PAGE 4 OF 4

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1211857

Client Information

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

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: PCB Aroclors	VOCs	Metals	TSS	SAMPLE HANDLING	Sample Specific Comments	TOTAL # BOTTLES
-7	MW-07A-070212-MS	7/2/12	1610	GW	DGS	X					Salinity = 0.36	2
	MW-07A-070212-MSD		1			X					1	2
-8	EB-001-070212		1645			X					Equipment Blank	2
	EB-001-070212						X					3
	EB-001-070212							X			1	1
-9	TB-070212	6/26/12			KB		X					

Container Type: A V P P
Preservative: A B C A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Dad Stuart	7/3/12 1210		
[illegible] 7/3/12	7/3/12 1650		7/3/12 1650

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

CHAIN OF CUSTODY

PAGE 1 OF 4

ALPHA Job #: L1211857

Date Rec'd in Lab:

ALPHA
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
East Falmouth, MA 02536
Phone: 508-540-8080
Fax: 508-540-1601
Email: DSTUART@WHGRP.COM
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	H2S	Sample Specific Comments	TOTAL # BOTTLES
-1	MW-005-070212	7/2/12	0910	GW	DGS	X				Salinity = 1.12 ppt	2
	MW-005-070212	7/2/12					X				3
	MW-005-070212							X			1
	MW-005-070212								X		1
-2	MW-005-070212-REP		0945			X				Salinity = 1.12 ppt	2
	MW-005-070212-REP						X				3
	MW-005-070212-REP							X			1
	MW-005-070212-REP								X		1
-3	MW-04A-070212		0945			X				Salinity = 3.02	2
	MW-04A-070212		0945				X				3

SAMPLE HANDLING

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

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01 (rev. 18-Jan-2010)

Relinquished By:	Date/Time	Received By:	Date/Time
Dad Stuart	7/3/12 1210	[illegible]	7/3/12 12:10
[illegible]	7/3/12 [illegible]	[illegible]	7/3/12 1650
[illegible]	7/5/12 0905	[illegible]	7/5/12 1042
[illegible]	7/5/12 1220	[illegible]	7/5/12 1220

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.

CHAIN OF CUSTODY

PAGE 2 OF 4

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1211857

Client Information

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

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

SAMPLE HANDLING
*Filtration*________
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-3	MW-04A-070212	7/2/12	0945	GW	DGS			X		Salinity= 3.02	1
↓	MW-04A-070212	↓	↓	↓	↓				X	↓	1
-4	MW-003-070212	↓	1150	↓	↓	X				Salinity= 1.47	2
↓	MW-003-070212	↓	↓	↓	↓		X			↓	3
↓	MW-003-070212	↓	↓	↓	↓			X		↓	1
↓	MW-003-070212	↓	↓	↓	↓				X	↓	1
-5	MW-006-070212	↓	1400	↓	MAB	X				Salinity= 0.33	2
↓	MW-006-070212	↓	↓	↓	↓		X			↓	3
↓	MW-006-070212	↓	↓	↓	↓			X		↓	1
↓	MW-006-070212	↓	↓	↓	↓				X	↓	1

	PCB Aroclors	VOCs	Metals	TSS
Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Dad Stuart	7/3/12 1210	[signature]	7/3/12 10:10
[signature] 7/3	7/3/12 1650	[signature]	7/3/12 1650
[signature]	7/5/12 0905	MCM	7/5/12 1042
MCM	7/5/12 ~~1042~~ 1220	[signature]	7/5/12 1200

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.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 3 OF 4

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1211857

Client Information

Client: Woods Hole Group
Address: 81 Technology Park
East Falmouth, MA 02536
Phone: 508-540-8080
Fax: 508-540-1001
Email: DSTUART@WHGRP.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ANALYSIS: PCB Aroclors | VOCs | Metals | PFAS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	PFAS	Sample Specific Comments	TOTAL # BOTTLES
-6	MW-001-070212	7/2/12	1450	GW	DGS	X				Salinity = 0.43	2
	MW-001-070212						X				3
	MW-001-070212							X			1
	MW-001-070212								X		1
-7	MW-07A-070212		1610		MAB	X				Salinity = 0.36	2
	MW-07A-070212						X				3
	MW-07A-070212							X			1
	MW-07A-070212								X		1
	MW-07A-070212-MSMSD				DGS		X			Salinity = 0.36	3
	MW-07A-070212-MSMSD							X			1

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01 (rev. 18-Jan-2010)

Relinquished By:	Date/Time	Received By:	Date/Time
Dad Stuart	7/3/12 1210		7/3/12 1210
	7/3/12 1650		7/3/12 1650
	7/5/12 0905		7/5/12 1042
	7/5/12 1220		7/5/12 1300

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.

CHAIN OF CUSTODY PAGE 4 OF 4

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1211857

Client Information

Client: Woods Hole Group
Address: 81 Technology Park
East Falmouth, MA 02536
Phone: 508-540-8080
Fax: 508-540-1001
Email: DSTUART@WHGRP
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: PCBs Aroclors	VOCs	Methods	TSS	SAMPLE HANDLING	Sample Specific Comments	TOTAL # BOTTLES
-7	MW-07A-070212-MS	7/2/12	1610	GW	DGS	X					Salinity = 0.36	2
	MW-07A-070212-MSD		1			X					1	2
-8	EB-001-070212		1645			X					Equipment Blank	2
	EB-001-070212						X					3
	EB-001-070212							X			1	1
-9	TB-070212	6/26/12			KB		X					

Container Type: A V P P
Preservative: A B C A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01 (rev. 18-Jan-2010)

Relinquished By:	Date/Time	Received By:	Date/Time
	7/3/12 1210		7/3/12 12:10
	7/3/12 1650		7/3/12 1650
	7/5/12 0905		7/5/12 1042
	7/5/12 1220		7/5/12 1220

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.

ANALYTICAL REPORT

Lab Number:	L1217887
Client:	Woods Hole Group 81 Technology Park Drive East Falmouth, MA 02536
ATTN:	Dack Stuart
Phone:	(508) 540-8080
Project Name:	NEW BEDFORD GROUNDWATER
Project Number:	TO-0010-07
Report Date:	11/08/12

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1217887-01	MW-04A-100312	NEW BEDFORD, MA	10/03/12 09:55
L1217887-02	MW-04A-100312-REP	NEW BEDFORD, MA	10/03/12 09:55
L1217887-03	MW-005-100312	NEW BEDFORD, MA	10/03/12 10:45
L1217887-04	MW-003-100312	NEW BEDFORD, MA	10/03/12 14:00
L1217887-05	MW-006-100312	NEW BEDFORD, MA	10/03/12 14:30
L1217887-06	MW-001-100312	NEW BEDFORD, MA	10/03/12 16:45
L1217887-07	MW-07A-100312	NEW BEDFORD, MA	10/03/12 16:30
L1217887-08	EB-001-100312	NEW BEDFORD, MA	10/03/12 18:10
L1217887-09	TB-100312	NEW BEDFORD, MA	10/03/12 00:00

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887
Project Number: TO-0010-07 **Report Date:** 11/08/12

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 GROUNDWATER	**Lab Number:**	L1217887
Project Number:	TO-0010-07	**Report Date:**	11/08/12

Case Narrative (continued)

Report Submission

This report replaces the one issued on October 22, 2012. The report was amended to correct extraction dates and times for the PCB quality control samples.

Volatile Organics by GC/MS

The WG566532-5/-6 MS/MSD recoveries, performed on L1217887-07, were outside the acceptance criteria for several compounds. The WG566532-6 MS/MSD RPDs, performed on L1217887-07, are above the acceptance criteria for 1,4-Dioxane (24%).

PCB Aroclor

L1217887-01 through 03 contain peaks which match the retention times for Aroclor 1242, but do not match the area ratios typical for this aroclor. The results for Aroclor 1242 are reported as "weathered".

L1217887-04 contains peaks which match the retention times for Aroclor 1242,1254, but do not match the area ratios typical for these aroclors. The result for these Aroclors are reported as "weathered".

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: 11/08/12

ORGANICS

VOLATILES

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-01	Date Collected:	10/03/12 09:55
Client ID:	MW-04A-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/11/12 11:18		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-01 Date Collected: 10/03/12 09:55

Client ID: MW-04A-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	99		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-01 Date Collected: 10/03/12 09:55

Client ID: MW-04A-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	106		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-02	Date Collected:	10/03/12 09:55
Client ID:	MW-04A-100312-REP	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/11/12 11:50		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-02 Date Collected: 10/03/12 09:55

Client ID: MW-04A-100312-REP Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-02 Date Collected: 10/03/12 09:55

Client ID: MW-04A-100312-REP Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	113		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-03	Date Collected:	10/03/12 10:45
Client ID:	MW-005-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/11/12 12:23		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-03 Date Collected: 10/03/12 10:45

Client ID: MW-005-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-03 Date Collected: 10/03/12 10:45

Client ID: MW-005-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	109		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-04	Date Collected:	10/03/12 14:00
Client ID:	MW-003-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/11/12 12:55		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	1.2		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-04 Date Collected: 10/03/12 14:00

Client ID: MW-003-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-04 Date Collected: 10/03/12 14:00

Client ID: MW-003-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	109		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-05	Date Collected:	10/03/12 14:30
Client ID:	MW-006-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/11/12 13:28		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-05 Date Collected: 10/03/12 14:30

Client ID: MW-006-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-05 Date Collected: 10/03/12 14:30

Client ID: MW-006-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	109		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-06	Date Collected:	10/03/12 16:45
Client ID:	MW-001-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/12/12 11:41		
Analyst:	TR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-06 Date Collected: 10/03/12 16:45

Client ID: MW-001-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-06 Date Collected: 10/03/12 16:45

Client ID: MW-001-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	105		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-07	Date Collected:	10/03/12 16:30
Client ID:	MW-07A-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/11/12 10:13		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-07 Date Collected: 10/03/12 16:30

Client ID: MW-07A-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-07 Date Collected: 10/03/12 16:30

Client ID: MW-07A-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	101		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-08	Date Collected:	10/03/12 18:10
Client ID:	EB-001-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/12/12 11:10		
Analyst:	TR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-08 Date Collected: 10/03/12 18:10

Client ID: EB-001-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-08 Date Collected: 10/03/12 18:10

Client ID: EB-001-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	105		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-09	Date Collected:	10/03/12 00:00
Client ID:	TB-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/12/12 10:07		
Analyst:	TR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-09 Date Collected: 10/03/12 00:00

Client ID: TB-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-09 Date Collected: 10/03/12 00:00

Client ID: TB-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/11/12 08:03
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG566532-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/11/12 08:03
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG566532-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/11/12 08:03
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG566532-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/12/12 09:35
Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06,08-09 Batch: WG566747-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/12/12 09:35
Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06,08-09 Batch: WG566747-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/12/12 09:35
Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06,08-09 Batch: WG566747-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG566532-1 WG566532-2								
Methylene chloride	116		119		70-130	3		20
1,1-Dichloroethane	100		94		70-130	6		20
Chloroform	98		92		70-130	6		20
Carbon tetrachloride	82		81		70-130	1		20
1,2-Dichloropropane	100		93		70-130	7		20
Dibromochloromethane	94		85		70-130	10		20
1,1,2-Trichloroethane	86		91		70-130	6		20
Tetrachloroethene	84		83		70-130	1		20
Chlorobenzene	86		81		70-130	6		20
Trichlorofluoromethane	88		84		70-130	5		20
1,2-Dichloroethane	94		92		70-130	2		20
1,1,1-Trichloroethane	87		84		70-130	4		20
Bromodichloromethane	98		93		70-130	5		20
trans-1,3-Dichloropropene	84		80		70-130	5		20
cis-1,3-Dichloropropene	92		90		70-130	2		20
1,1-Dichloropropene	91		88		70-130	3		20
Bromoform	95		90		70-130	5		20
1,1,2,2-Tetrachloroethane	90		98		70-130	9		20
Benzene	102		93		70-130	9		20
Toluene	83		79		70-130	5		20
Ethylbenzene	82		79		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG566532-1 WG566532-2								
Chloromethane	75		70		70-130	7		20
Bromomethane	74		76		70-130	3		20
Vinyl chloride	87		84		70-130	4		20
Chloroethane	91		85		70-130	7		20
1,1-Dichloroethene	98		96		70-130	2		20
trans-1,2-Dichloroethene	103		91		70-130	12		20
Trichloroethene	96		94		70-130	2		20
1,2-Dichlorobenzene	85		79		70-130	7		20
1,3-Dichlorobenzene	82		78		70-130	5		20
1,4-Dichlorobenzene	81		78		70-130	4		20
Methyl tert butyl ether	110		107		70-130	3		20
p/m-Xylene	83		80		70-130	4		20
o-Xylene	86		84		70-130	2		20
cis-1,2-Dichloroethene	101		94		70-130	7		20
Dibromomethane	100		98		70-130	2		20
1,2,3-Trichloropropane	97		92		70-130	5		20
Styrene	88		81		70-130	8		20
Dichlorodifluoromethane	80		74		70-130	8		20
Acetone	**138**	Q	**136**	Q	70-130	1		20
Carbon disulfide	93		81		70-130	14		20
2-Butanone	119		117		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG566532-1 WG566532-2								
4-Methyl-2-pentanone	117		**138**	Q	70-130	16		20
2-Hexanone	96		101		70-130	5		20
Bromochloromethane	114		95		70-130	18		20
Tetrahydrofuran	109		126		70-130	14		20
2,2-Dichloropropane	88		85		70-130	3		20
1,2-Dibromoethane	99		98		70-130	1		20
1,3-Dichloropropane	94		93		70-130	1		20
1,1,1,2-Tetrachloroethane	86		81		70-130	6		20
Bromobenzene	87		84		70-130	4		20
n-Butylbenzene	72		72		70-130	0		20
sec-Butylbenzene	74		71		70-130	4		20
tert-Butylbenzene	74		71		70-130	4		20
o-Chlorotoluene	77		72		70-130	7		20
p-Chlorotoluene	75		73		70-130	3		20
1,2-Dibromo-3-chloropropane	110		107		70-130	3		20
Hexachlorobutadiene	83		80		70-130	4		20
Isopropylbenzene	80		77		70-130	4		20
p-Isopropyltoluene	78		71		70-130	9		20
Naphthalene	102		99		70-130	3		20
n-Propylbenzene	76		70		70-130	8		20
1,2,3-Trichlorobenzene	117		107		70-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG566532-1 WG566532-2								
1,2,4-Trichlorobenzene	93		83		70-130	11		20
1,3,5-Trimethylbenzene	79		**65**	Q	70-130	19		20
1,2,4-Trimethylbenzene	82		73		70-130	12		20
Ethyl ether	107		105		70-130	2		20
Isopropyl Ether	98		93		70-130	5		20
Ethyl-Tert-Butyl-Ether	101		96		70-130	5		20
Tertiary-Amyl Methyl Ether	103		98		70-130	5		20
1,4-Dioxane	112		**140**	Q	70-130	**22**	Q	20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	87		86		70-130
4-Bromofluorobenzene	100		94		70-130
Dibromofluoromethane	103		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06,08-09 Batch: WG566747-1 WG566747-2								
Methylene chloride	89		90		70-130	1		20
1,1-Dichloroethane	87		88		70-130	1		20
Chloroform	91		92		70-130	1		20
Carbon tetrachloride	101		103		70-130	2		20
1,2-Dichloropropane	85		86		70-130	1		20
Dibromochloromethane	89		95		70-130	7		20
1,1,2-Trichloroethane	80		85		70-130	6		20
Tetrachloroethene	86		86		70-130	0		20
Chlorobenzene	81		82		70-130	1		20
Trichlorofluoromethane	98		98		70-130	0		20
1,2-Dichloroethane	89		92		70-130	3		20
1,1,1-Trichloroethane	99		100		70-130	1		20
Bromodichloromethane	92		98		70-130	6		20
trans-1,3-Dichloropropene	85		90		70-130	6		20
cis-1,3-Dichloropropene	85		89		70-130	5		20
1,1-Dichloropropene	89		89		70-130	0		20
Bromoform	95		102		70-130	7		20
1,1,2,2-Tetrachloroethane	75		81		70-130	8		20
Benzene	88		89		70-130	1		20
Toluene	82		83		70-130	1		20
Ethylbenzene	84		85		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06,08-09 Batch: WG566747-1 WG566747-2								
Chloromethane	91		90		70-130	1		20
Bromomethane	88		89		70-130	1		20
Vinyl chloride	94		94		70-130	0		20
Chloroethane	90		89		70-130	1		20
1,1-Dichloroethene	90		90		70-130	0		20
trans-1,2-Dichloroethene	87		87		70-130	0		20
Trichloroethene	89		90		70-130	1		20
1,2-Dichlorobenzene	78		79		70-130	1		20
1,3-Dichlorobenzene	78		79		70-130	1		20
1,4-Dichlorobenzene	78		78		70-130	0		20
Methyl tert butyl ether	102		108		70-130	6		20
p/m-Xylene	84		85		70-130	1		20
o-Xylene	83		84		70-130	1		20
cis-1,2-Dichloroethene	86		87		70-130	1		20
Dibromomethane	87		90		70-130	3		20
1,2,3-Trichloropropane	76		82		70-130	8		20
Styrene	84		84		70-130	0		20
Dichlorodifluoromethane	116		116		70-130	0		20
Acetone	101		110		70-130	9		20
Carbon disulfide	90		90		70-130	0		20
2-Butanone	110		122		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06,08-09 Batch: WG566747-1 WG566747-2								
4-Methyl-2-pentanone	85		91		70-130	7		20
2-Hexanone	78		86		70-130	10		20
Bromochloromethane	88		92		70-130	4		20
Tetrahydrofuran	83		90		70-130	8		20
2,2-Dichloropropane	100		103		70-130	3		20
1,2-Dibromoethane	88		94		70-130	7		20
1,3-Dichloropropane	81		85		70-130	5		20
1,1,1,2-Tetrachloroethane	87		92		70-130	6		20
Bromobenzene	79		80		70-130	1		20
n-Butylbenzene	83		83		70-130	0		20
sec-Butylbenzene	81		81		70-130	0		20
tert-Butylbenzene	81		81		70-130	0		20
o-Chlorotoluene	79		80		70-130	1		20
p-Chlorotoluene	79		79		70-130	0		20
1,2-Dibromo-3-chloropropane	100		110		70-130	10		20
Hexachlorobutadiene	87		86		70-130	1		20
Isopropylbenzene	85		86		70-130	1		20
p-Isopropyltoluene	84		83		70-130	1		20
Naphthalene	81		84		70-130	4		20
n-Propylbenzene	81		80		70-130	1		20
1,2,3-Trichlorobenzene	81		86		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06,08-09 Batch: WG566747-1 WG566747-2								
1,2,4-Trichlorobenzene	80		82		70-130	2		20
1,3,5-Trimethylbenzene	81		81		70-130	0		20
1,2,4-Trimethylbenzene	81		81		70-130	0		20
Ethyl ether	86		92		70-130	7		20
Isopropyl Ether	79		82		70-130	4		20
Ethyl-Tert-Butyl-Ether	124		128		70-130	3		20
Tertiary-Amyl Methyl Ether	105		113		70-130	7		20
1,4-Dioxane	**137**	Q	**139**	Q	70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		107		70-130
Toluene-d8	95		95		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	106		104		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 QC Batch ID: WG566532-5 WG566532-6 QC Sample: L1217887-07 Client ID: MW-07A-100312												
Methylene chloride	ND	10	12	117		12	114		70-130	0		20
1,1-Dichloroethane	ND	10	11	112		11	108		70-130	0		20
Chloroform	ND	10	11	108		11	107		70-130	0		20
Carbon tetrachloride	ND	10	10	103		10	102		70-130	0		20
1,2-Dichloropropane	ND	10	10	104		10	105		70-130	0		20
Dibromochloromethane	ND	10	9.7	97		8.8	88		70-130	10		20
1,1,2-Trichloroethane	ND	10	9.6	96		9.1	91		70-130	5		20
Tetrachloroethene	ND	10	9.7	97		9.1	91		70-130	6		20
Chlorobenzene	ND	10	9.2	92		8.9	89		70-130	3		20
Trichlorofluoromethane	ND	10	11	110		10	106		70-130	10		20
1,2-Dichloroethane	ND	10	10	101		10	100		70-130	0		20
1,1,1-Trichloroethane	ND	10	10	105		10	102		70-130	0		20
Bromodichloromethane	ND	10	10	103		11	106		70-130	10		20
trans-1,3-Dichloropropene	ND	10	8.8	88		8.7	87		70-130	1		20
cis-1,3-Dichloropropene	ND	10	10	106		10	102		70-130	0		20
1,1-Dichloropropene	ND	10	10	106		10	103		70-130	0		20
Bromoform	ND	10	10	101		9.1	91		70-130	9		20
1,1,2,2-Tetrachloroethane	ND	10	9.3	93		9.3	93		70-130	0		20
Benzene	ND	10	11	110		11	110		70-130	0		20
Toluene	ND	10	9.3	92		8.7	86		70-130	7		20
Ethylbenzene	ND	10	9.0	90		8.8	88		70-130	2		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 QC Batch ID: WG566532-5 WG566532-6 QC Sample: L1217887-07 Client ID: MW-07A-100312												
Chloromethane	ND	10	9.0	90		8.5	85		70-130	6		20
Bromomethane	ND	10	3.2	**32**	Q	3.4	**35**	Q	70-130	6		20
Vinyl chloride	ND	10	11	113		11	111		70-130	0		20
Chloroethane	ND	10	9.4	94		9.8	98		70-130	4		20
1,1-Dichloroethene	ND	10	11	113		12	115		70-130	9		20
trans-1,2-Dichloroethene	ND	10	11	110		11	111		70-130	0		20
Trichloroethene	ND	10	11	106		10	106		70-130	10		20
1,2-Dichlorobenzene	ND	10	8.9	89		8.4	84		70-130	6		20
1,3-Dichlorobenzene	ND	10	9.1	91		8.6	86		70-130	6		20
1,4-Dichlorobenzene	ND	10	8.2	82		8.1	81		70-130	1		20
Methyl tert butyl ether	ND	10	11	112		11	108		70-130	0		20
p/m-Xylene	ND	20	19	93		18	90		70-130	5		20
o-Xylene	ND	20	18	92		18	92		70-130	0		20
cis-1,2-Dichloroethene	ND	10	12	117		11	112		70-130	9		20
Dibromomethane	ND	10	10	103		9.9	99		70-130	1		20
1,2,3-Trichloropropane	ND	10	9.7	98		8.9	89		70-130	9		20
Styrene	ND	20	20	98		18	91		70-130	11		20
Dichlorodifluoromethane	ND	10	10	100		9.4	94		70-130	6		20
Acetone	ND	10	12	122		12	118		70-130	0		20
Carbon disulfide	ND	10	11	113		11	112		70-130	0		20
2-Butanone	ND	10	8.2	82		8.4	84		70-130	2		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 QC Batch ID: WG566532-5 WG566532-6 QC Sample: L1217887-07 Client ID: MW-07A-100312												
4-Methyl-2-pentanone	ND	10	13	**132**	Q	12	118		70-130	8		20
2-Hexanone	ND	10	8.0	80		7.7	77		70-130	4		20
Bromochloromethane	ND	10	12	121		12	122		70-130	0		20
Tetrahydrofuran	ND	10	10	106		10	106		70-130	0		20
2,2-Dichloropropane	ND	10	9.5	95		9.5	95		70-130	0		20
1,2-Dibromoethane	ND	10	10	101		9.5	95		70-130	5		20
1,3-Dichloropropane	ND	10	9.3	93		9.4	94		70-130	1		20
1,1,1,2-Tetrachloroethane	ND	10	9.5	95		8.5	85		70-130	11		20
Bromobenzene	ND	10	9.1	91		8.3	83		70-130	9		20
n-Butylbenzene	ND	10	8.0	80		8.0	80		70-130	0		20
sec-Butylbenzene	ND	10	7.9	79		8.2	82		70-130	4		20
tert-Butylbenzene	ND	10	8.3	83		7.9	79		70-130	5		20
o-Chlorotoluene	ND	10	8.3	83		8.1	81		70-130	2		20
p-Chlorotoluene	ND	10	8.1	81		8.2	82		70-130	1		20
1,2-Dibromo-3-chloropropane	ND	10	10	102		9.6	96		70-130	4		20
Hexachlorobutadiene	ND	10	8.7	87		8.8	88		70-130	1		20
Isopropylbenzene	ND	10	9.0	90		9.0	90		70-130	0		20
p-Isopropyltoluene	ND	10	8.3	83		8.0	81		70-130	4		20
Naphthalene	ND	10	8.9	89		9.0	90		70-130	1		20
n-Propylbenzene	ND	10	8.0	80		8.0	80		70-130	0		20
1,2,3-Trichlorobenzene	ND	10	9.8	98		10	105		70-130	2		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 QC Batch ID: WG566532-5 WG566532-6 QC Sample: L1217887-07 Client ID: MW-07A-100312												
1,2,4-Trichlorobenzene	ND	10	8.4	84		8.8	89		70-130	5		20
1,3,5-Trimethylbenzene	ND	10	8.3	83		8.1	81		70-130	2		20
1,2,4-Trimethylbenzene	ND	10	8.9	89		8.5	85		70-130	5		20
Ethyl ether	ND	10	11	111		11	115		70-130	0		20
Isopropyl Ether	ND	10	10	102		10	103		70-130	0		20
Ethyl-Tert-Butyl-Ether	ND	10	10	101		10	104		70-130	0		20
Tertiary-Amyl Methyl Ether	ND	10	10	103		10	104		70-130	0		20
1,4-Dioxane	ND	1000	1100	111		1400	**139**	Q	70-130	**24**	Q	20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		90		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	111		104		70-130
Toluene-d8	88		86		70-130

PCBS

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-01	Date Collected:	10/03/12 09:55
Client ID:	MW-04A-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 01:24		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1242	0.045		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1254	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	64		30-150
Decachlorobiphenyl	86		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-02	Date Collected:	10/03/12 09:55
Client ID:	MW-04A-100312-REP	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 01:54		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1242	0.047		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1254	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	80		30-150
Decachlorobiphenyl	92		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-03	Date Collected:	10/03/12 10:45
Client ID:	MW-005-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 02:25		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1242	0.020		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1254	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	77		30-150
Decachlorobiphenyl	101		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-04	Date Collected:	10/03/12 14:00
Client ID:	MW-003-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 02:55		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	71		30-150
Decachlorobiphenyl	85		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-04	Date Collected:	10/03/12 14:00
Client ID:	MW-003-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 02:55		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1242	0.068		ug/l	0.011	--	1
Aroclor 1254	0.039		ug/l	0.011	--	1

Tetrachloro-meta-Xylene	71	30-150
Decachlorobiphenyl	85	30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-05	Date Collected:	10/03/12 14:30
Client ID:	MW-006-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 03:26		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1242	ND		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1254	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	71		30-150
Decachlorobiphenyl	70		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-06	Date Collected:	10/03/12 16:45
Client ID:	MW-001-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 03:56		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1242	ND		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1254	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	71		30-150
Decachlorobiphenyl	93		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-07	Date Collected:	10/03/12 16:30
Client ID:	MW-07A-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 04:26		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1242	ND		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1254	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	73		30-150
Decachlorobiphenyl	74		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID:	L1217887-08	Date Collected:	10/03/12 18:10
Client ID:	EB-001-100312	Date Received:	10/04/12
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	10/10/12 15:12
Analytical Date:	10/17/12 06:28		
Analyst:	RR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Mansfield Lab						
Aroclor 1016	ND		ug/l	0.011	--	1
Aroclor 1221	ND		ug/l	0.011	--	1
Aroclor 1232	ND		ug/l	0.011	--	1
Aroclor 1242	ND		ug/l	0.011	--	1
Aroclor 1248	ND		ug/l	0.011	--	1
Aroclor 1254	ND		ug/l	0.011	--	1
Aroclor 1260	ND		ug/l	0.011	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	79		30-150
Decachlorobiphenyl	72		30-150

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 10/12/12 16:48
Analyst: RR

Extraction Method: EPA 3510C
Extraction Date: 10/10/12 15:12

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Mansfield Lab for sample(s): 01-08 Batch: WG566381-1					
Aroclor 1016	ND		ug/l	0.010	--
Aroclor 1221	ND		ug/l	0.010	--
Aroclor 1232	ND		ug/l	0.010	--
Aroclor 1242	ND		ug/l	0.010	--
Aroclor 1248	ND		ug/l	0.010	--
Aroclor 1254	ND		ug/l	0.010	--
Aroclor 1260	ND		ug/l	0.010	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	51		30-150
Decachlorobiphenyl	69		30-150

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG566381-5 WG566381-6 QC Sample: L1217887-07 Client ID: MW-07A-100312												
Aroclor 1016	ND	0.529	0.437	83		0.468	88		40-140	7		50
Aroclor 1260	ND	0.529	0.513	97		0.582	109		40-140	13		50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
Tetrachloro-meta-Xylene	84		86		30-150
Decachlorobiphenyl	74		84		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Mansfield Lab Associated sample(s): 01-08 Batch: WG566381-2 WG566381-3								
Aroclor 1016	53		60		40-140	12		50
Aroclor 1260	75		90		40-140	18		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Tetrachloro-meta-Xylene	43		50		30-150
Decachlorobiphenyl	69		81		30-150

METALS

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-01 Date Collected: 10/03/12 09:55

Client ID: MW-04A-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	0.0009		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:14	EPA 3020A	1,6020A	PD
Chromium, Total	0.003		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:14	EPA 3020A	1,6020A	PD
Copper, Total	0.008		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:14	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:14	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-02 Date Collected: 10/03/12 09:55

Client ID: MW-04A-100312-REP Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:17	EPA 3020A	1,6020A	PD
Chromium, Total	0.001		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:17	EPA 3020A	1,6020A	PD
Copper, Total	0.006		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:17	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:17	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-03 Date Collected: 10/03/12 10:45

Client ID: MW-005-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:18	EPA 3020A	1,6020A	PD
Chromium, Total	0.003		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:18	EPA 3020A	1,6020A	PD
Copper, Total	0.005		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:18	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:18	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-04 Date Collected: 10/03/12 14:00

Client ID: MW-003-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:20	EPA 3020A	1,6020A	PD
Chromium, Total	0.002		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:20	EPA 3020A	1,6020A	PD
Copper, Total	0.006		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:20	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:20	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-05 Date Collected: 10/03/12 14:30

Client ID: MW-006-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:21	EPA 3020A	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:21	EPA 3020A	1,6020A	PD
Copper, Total	0.001		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:21	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:21	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-06 Date Collected: 10/03/12 16:45

Client ID: MW-001-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:22	EPA 3020A	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:22	EPA 3020A	1,6020A	PD
Copper, Total	0.001		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:22	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:22	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-07 Date Collected: 10/03/12 16:30

Client ID: MW-07A-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:23	EPA 3020A	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:23	EPA 3020A	1,6020A	PD
Copper, Total	0.002		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:23	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:23	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-08 Date Collected: 10/03/12 18:10

Client ID: EB-001-100312 Date Received: 10/04/12

Sample Location: NEW BEDFORD, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:31	EPA 3020A	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:31	EPA 3020A	1,6020A	PD
Copper, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:31	EPA 3020A	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:31	EPA 3020A	1,6020A	PD

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG566468-1										
Cadmium, Total	ND		mg/l	0.0005	--	1	10/12/12 09:30	10/17/12 11:10	1,6020A	PD
Chromium, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:10	1,6020A	PD
Copper, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:10	1,6020A	PD
Lead, Total	ND		mg/l	0.001	--	1	10/12/12 09:30	10/17/12 11:10	1,6020A	PD

Prep Information

Digestion Method: EPA 3020A

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG566468-2 SRM Lot Number: A2METSPIKE								
Cadmium, Total	104		-		80-120	-		20
Chromium, Total	98		-		80-120	-		20
Copper, Total	103		-		80-120	-		20
Lead, Total	104		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG566468-4 QC Sample: L1217887-07 Client ID: MW-07A-100312												
Cadmium, Total	ND	0.5	0.4993	100		-	-		75-125	-		20
Chromium, Total	ND	1	0.934	93		-	-		75-125	-		20
Copper, Total	0.002	1	0.957	95		-	-		75-125	-		20
Lead, Total	ND	1	0.943	94		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG566468-3 QC Sample: L1217887-07 Client ID: MW-07A-100312						
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.002	0.002	mg/l	16		20
Lead, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1217887
Report Date: 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-01
Client ID: MW-04A-100312
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 10/03/12 09:55
Date Received: 10/04/12
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 Suspended	1.40		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1217887
Report Date: 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-02
Client ID: MW-04A-100312-REP
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 10/03/12 09:55
Date Received: 10/04/12
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 Suspended	1.50		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1217887
Report Date: 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-03
Client ID: MW-005-100312
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 10/03/12 10:45
Date Received: 10/04/12
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 Suspended	3.30		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1217887
Report Date: 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-04
Client ID: MW-003-100312
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 10/03/12 14:00
Date Received: 10/04/12
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 Suspended	10.0		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1217887
Report Date: 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-05
Client ID: MW-006-100312
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 10/03/12 14:30
Date Received: 10/04/12
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 Suspended	11.9		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1217887
Report Date: 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-06
Client ID: MW-001-100312
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 10/03/12 16:45
Date Received: 10/04/12
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 Suspended	4.00		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07
Lab Number: L1217887
Report Date: 11/08/12

SAMPLE RESULTS

Lab ID: L1217887-07
Client ID: MW-07A-100312
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 10/03/12 16:30
Date Received: 10/04/12
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 Suspended	2.30		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Project Name: NEW BEDFORD GROUNDWATER **Lab Number:** L1217887

Project Number: TO-0010-07 **Report Date:** 11/08/12

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab for sample(s): 01-07 Batch: WG565414-1										
Solids, Total Suspended	ND		mg/l	1.00	NA	1	-	10/06/12 08:00	30,2540D	ES

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER

Project Number: TO-0010-07

Lab Number: L1217887

Report Date: 11/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-07 Batch: WG565414-2								
Solids, Total Suspended	97		-		85-115	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG565414-3 QC Sample: L1217887-07 Client ID: MW-07A-100312						
Solids, Total Suspended	2.30	2.70	mg/l	16		20

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

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
D	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1217887-01A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-01B	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-01C	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-01D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-01E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-01F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-01G	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	A2-TSS-2540D(7)
L1217887-02A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-02B	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-02C	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-02D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-02E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-02F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-02G	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	A2-TSS-2540D(7)
L1217887-03A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-03B	Amber 1000ml unpreserved	C	7	2.3	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-03C	Amber 1000ml unpreserved	C	7	2.3	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-03D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-03E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1217887-03F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-03G	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	A2-TSS-2540D(7)
L1217887-04A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-04B	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-04C	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-04D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-04E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-04F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-04G	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	A2-TSS-2540D(7)
L1217887-05A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-05B	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-05C	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-05D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-05E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-05F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-05G	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	A2-TSS-2540D(7)
L1217887-06A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-06B	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-06C	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-06D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-06E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-06F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-06G	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	A2-TSS-2540D(7)
L1217887-07A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-07B	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-07B1	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-07B2	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-07C	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-07C1	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD GROUNDWATER
Project Number: TO-0010-07

Lab Number: L1217887
Report Date: 11/08/12

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1217887-07C2	Amber 1000ml unpreserved	B	7	2.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-07D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-07E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-07F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-07G	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	A2-TSS-2540D(7)
L1217887-07H	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-07N	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-07O	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-07P	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-08A	Plastic 500ml HNO3 preserved	C	<2	2.3	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-PREP-3020(180),A2-CU-6020T(180)
L1217887-08B	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-08C	Amber 1000ml unpreserved	D	7	3.7	Y	Absent	A2-PCB-8082-LOW(7)
L1217887-08D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-08E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-08F	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-09D	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1217887-09E	Vial HCl preserved	C	N/A	2.3	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name:	NEW BEDFORD GROUNDWATER	**Lab Number:**	L1217887
Project Number:	TO-0010-07	**Report Date:**	11/08/12

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 GROUNDWATER	**Lab Number:**	L1217887
Project Number:	TO-0010-07	**Report Date:**	11/08/12

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 GROUNDWATER	**Lab Number:**	L1217887
Project Number:	TO-0010-07	**Report Date:**	11/08/12

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.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

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.

Certificate/Approval Program Summary

Last revised August 16, 2012 - Westboro 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-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 624, 625, 8081A, 8082, 8330, 8151A, 8260B, 8270C, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9030B, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)
*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7

for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010B, 6010C, 6020, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9030B, 9040B, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082, 8082A, 8081A, 8081B, 8151A, 8330, 8270C-SIM, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 6010C, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050, 9065,1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082, 8082A, 8081A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, 2540G, EPA 120.1, SM2510B, SM2520B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 624, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012A, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010B, 9040C, 9045D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C, 3546, 3580, 3580A, 5030B, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7471A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 245.2, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 3501., 350.2, 353.2, 420.1, 6010B, 6010C, 6020, 6020A, 7196A, 7470A, 9010B, 9030B, 9040B, Lachat 10-107-06-2-D, NJ-EPH, 2120B, 2310B, 2320B, 2340B, 2510C, 2540B, 2540C, 3500Cr-D, 436C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330, 8015B,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010B, 6010C, 6020A, 7196A, 7471A, 7471B, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500F-C, 4500NO3-F, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 2..08, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. Organic Parameters: EPA 5035, 3540C, 3546, 3550, 3580, 3630C, 8260B, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix, SO4 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 4

Date Rec'd in Lab:

ALPHA Job #: L1217987

ALPHA ANALYTICAL
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

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ANALYSIS: PCB Aroclors | VOCs | Metals | TSS

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-1	MW-04A-100312	10/3/12	09:55	GW	DS	X				Salinity = 2.93 ppt	2
	MW-04A-100312						X				3
	MW-04A-100312							X			1
	MW-04A-100312								X		1
-2	MW-04A-100312-REP		09:55			X				REP	2
	MW-04A-100312-REP						X				3
	MW-04A-100312-REP							X			1
	MW-04A-100312-REP								X		1
-3	MW-005-100312		10:45		MAB	X				Salinity = 1.72 ppt	2
	MW-005-100312						X				3

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
DS MCM	10/4/12 0905	MCM	10/4/12 0905
MCM	10/4/12 1555		10/4/12 1555

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.

CHAIN OF CUSTODY

PAGE 2 OF 4

ALPHA TECHNICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1217887

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

Project Information

Project Name: New Bedford Groundwater
Project Location: New Bedford, MA
Project #: TO-0010-07
Project Manager: Dave Welsh
ALPHA Quote #:

Turn-Around Time

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

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-3	MW-005-100312	10/3/12	10:45	GW	MAB			X		Salinity = 1.72	1
	MW-005-100312		"	"	"				X	"	1
-4	MW-003-100312		14:00		DS	X				Salinity = 0.45	2
	MW-003-100312		"		"		X			"	3
	MW-003-100312		"		"			X		"	1
	MW-003-100312		"		"				X	"	1
-5	MW-006-100312		1430		MAB	X				Salinity = 0.36	2
	MW-006-100312		"		"		X			"	3
	MW-006-100312		"		"			X		"	1
	MW-006-100312		"		"				X	"	1

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	10/4/12 0905	MSM	10/4/12 0905
MSM	10/4/12 1533	[signature]	10/5/12 1555

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.

CHAIN OF CUSTODY

PAGE 3 OF 4

ALPHA TECHNICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1217887

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

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Project-specific EPD

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-6	MW-001-100312	10/3/12	1645	GW	DS	X				Salinity ≥ 0.40	2
	MW-001-100312						X				3
	MW-001-100312							X			1
	MW-001-100312								X		1
-7	MW-07A-100312		1630		MAB	X				Salinity ≥ 0.39	2
	MW-07A-100312						X				3
	MW-07A-100312							X			1
	MW-07A-100312								X		1
	MW-07A-100312-MSMSD		1630				X			MSMSD	3
	MW-07A-100312-MSMSD		1630					X		MSMSD	1
	Container Type					A	V	P	P		
	Preservative					A	B	C	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	10/4/12 0905	MCM	10/4/12 0905
MCM	10/4/12 1557	[signature]	10/5/12 1555

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

CHAIN OF CUSTODY

PAGE 4 OF 4

ALPHA ANALYTICAL

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

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

Date Rec'd in Lab:

ALPHA Job #: L1217887

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

Project Information

Project Name: New Bedford Groundwater

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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-7	MW-07A-100312-MS	10/3/12	1630	GW	MAB	X				Salinity ≥ 0.39	2
	MW-07A-100312-MSD		⊥		⊥	X				⊥	2
-8	BB-001-100312		1810		DS	X				Equipment blank	2
	BB-001-100312		⊥		⊥		X			⊥	3
	BB-001-100312	⊥	⊥	⊥	⊥			X		⊥	1
-9	TB-100312	10/3/12			KJB		X			Trip Blank	2

SAMPLE HANDLING

Filtration
☐ Done ☐ Not needed ☐ Lab to do

Preservation
☐ Lab to do (Please specify below)

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Dave Stuart	10/4/12 0905	[signature]	10/4/12 0905
[signature]	10/4/12 1555	[signature]	10/5/12 1555

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

CHAIN OF CUSTODY

PAGE 1 OF 4

Date Rec'd in Lab:

ALPHA Job #: L1217987

ALPHA TICAL
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: 508-495-540-8080
Fax: 508-540-1001
Email: DSTUART@WHGRP.COM
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Groundwater
Project Location: New Bedford, MA
Project #: TO-0010-07
Project Manager: Dave Valsh
ALPHA Quote #:

Turn-Around Time

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

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	Total # Bottles
1	MW-04A-100312	10/3/12	09:55	GW	DS	X				Salinity = 2.93 ppt	2
	MW-04A-100312						X				3
	MW-04A-100312							X			1
	MW-04A-100312								X		1
2	MW-04A-100312-REP		09:55			X				REP	2
	MW-04A-100312-REP						X				3
	MW-04A-100312-REP							X			1
	MW-04A-100312-REP								X		1
3	MW-005-100312		10:45		MAB	X				Salinity = 1.72 ppt	2
	MW-005-100312		1		1		X			1	3

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01 (rev. 18-Jan-2010)

Relinquished By:	Date/Time	Received By:	Date/Time
	10/4/12 0905		10/4/12 0905
	10/4/12 1535		10/4/12 1555
	10/5/12 1250		10/5/12 1735
	10/5/12 1900		10/5/12 1900

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.

CHAIN OF CUSTODY

PAGE 2 OF 4

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1217887

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

Project Information

Project Name: New Bedford Groundwater
Project Location: New Bedford, MA
Project #: TO-0010-07
Project Manager: Dave Welsh
ALPHA Quote #:

Turn-Around Time

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

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

SAMPLE HANDLING

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOC's	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-3	MW-005-100312	10/3/12	10:45	GW	MAB			X		Salinity = 1.72	1
	MW-005-100312		"	"	"				X	"	1
-4	MW-003-100312		14:00		DS	X				Salinity = 0.45	2
	MW-003-100312		"		"		X			"	3
	MW-003-100312		"		"			X		"	1
	MW-003-100312		"		"				X	"	1
-5	MW-006-100312		1430		MAB	X				Salinity = 0.36	2
	MW-006-100312		"		"		X			"	3
	MW-006-100312		"		"			X		"	1
	MW-006-100312		"		"				X	"	1

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	10/4/12 0905	MSM	10/4/12 0905
MSM	10/4/12 1555	[illegible]	10/5/12 1555
[illegible]	10/5/12 1250	[illegible]	10/5/12 1735
[illegible]	10/5/12 1900	[illegible]	10/5/12 1900

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.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 3 OF 4

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1217887

Project Information

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

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

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Project-specific EDD

ANALYSIS: PCB Aroclors, VOCs, Metals, TSS

SAMPLE HANDLING
Filtration ☐ Done ☐ Not needed ☐ Lab to do
Preservation ☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
6	MW-001-100312	10/3/12	1645	GW	DS	X				Salinity≈0.40	2
	MW-001-100312						X				3
	MW-001-100312							X			1
	MW-001-100312								X		1
7	MW-07A-100312		1630		MAB	X				Salinity≈0.39	2
	MW-07A-100312						X				3
	MW-07A-100312							X			1
	MW-07A-100312								X		1
	MW-07A-100312-MSMSD		1630				X			MSMSD	3
	MW-07A-100312-MSMSD		1630					X		MSMSD	1

	PCB Aroclors	VOCs	Metals	TSS
Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
David Stuart	10/4/12 0905	MCM	10/4/12 0905
MCM	10/4/12 1555	[signature]	10/5/12 1555
[signature]	10/5/12 1250	T. Hardell	10/5/12 1735
T. Hardell	10/5/12 1900	[signature]	10/5/12 1900

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.

FORM NO: 01-01 (rev. 18-Jan-2010)

B-217

CHAIN OF CUSTODY

PAGE 4 OF 4

ALPHA TECHNICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1217887

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

Project Information

Project Name: New Bedford Groundwater
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:

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: PCB Aroclors | VOCs | Metals | TSS

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors	VOCs	Metals	TSS	Sample Specific Comments	TOTAL # BOTTLES
-1	MW-07A-100312-MS	10/3/12	1630	GW	MAB	X			X	Salinity = 0.39	2
-2	MW-07A-100312-MSD					X					2
-3	BB-001-100312		1810		DS	X				Equipment blank	2
-4	BB-001-100312						X				3
-5	BB-001-100312							X			1
-6	TB-100312	10/3/12			KJB		X			Trip Blank	2

Container Type	A	V	P	P
Preservative	A	B	C	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01 (rev. 18-Jan-2010)

Relinquished By:	Date/Time	Received By:	Date/Time
Dave Walsh	10/4/12 0905	[illegible]	10/4/12 0905
[illegible]	10/4/12 1555	[illegible]	10/5/12 1555
[illegible]	10/5/12 1250	[illegible]	10/5/12 1735
[illegible]	10/5/12 1900	[illegible]	10/5/12 1900

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 C: NEW ENVIRONMENTAL HORIZONS, INC. DATA VALIDATION REPORTS

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TABLE OF CONTENTS

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. One SDG typically consists of 20 samples. Refer to Appendix B for a summary of which SDGs are associated with each sampling event as well as the analytes reported.

A DV report is made up of five data files. The table below, using SDG L1211857 as an example, describes the contents of each DV file.

File name	File type	Description
dbval_L1211857dv	.CSV	Comma-delimited database file of validated sample results
NBH_OU1_GW_DV_Report_L1211857	.PDF	Data validation report letter summarizing actions taken
NBH_OU-1_GW_Metals_TierI+ Checklist_L1211857	.PDF	Data review checklist for Metal analyses
PCBAroclors_GW_GCECD_Tier I+ _Checklist_L1211857	.PDF	Data review checklist for PCB Aroclor analyses
VOC_GW_Tier I+_Checklist_L1211857	.PDF	Data review checklist for VOC analyses

This Appendix document includes the DV validation report letters only. All other data files associated with each SDG are included as electronic attachments on the accompanying CD.

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Data Validation Report
EPA Region I Tier I+-type
VOCs by 8260B, PCB Aroclors by 8082, & Metals by 6020A

Client/Company:	Woods Hole Group, Inc. (WHG)
Site/Project Name:	New Bedford Harbor Superfund Site – OU1
Laboratory:	Alpha Analytical – Mansfield & Westborough, MA
Lab Project Number(s):	L1211857
Date(s) of Collection:	July 2, 2012
Number / Type Samples & Analyses for Validation:	7 groundwaters, 1 equipment blank (EB), and 1 trip blank (TB) for a project-specific list of Volatile Organic Compounds (VOC) by EPA SW-846 Method 8260B 7 groundwaters and 1 EB for Polychlorinated Biphenyl Compounds (PCB Aroclors) by EPA SW-846 Method 8082 and a project-specific list of Metals (cadmium, chromium, copper, & lead) by EPA SW-846 Method 6020A
Senior Data Reviewers:	Nancy C. Rothman, PhD, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	August 24, 2012

This EPA Region I Tier I+-type validation for VOCs, PCB Aroclors, and Metals 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 II – Volatile /Semivolatile Data Validation Functional Guidelines*, *Part III – Pesticide/PCB Data Validation Functional Guidelines*, Draft February 2004, and *Part IV – Inorganic Data Validation Functional Guidelines*, November 2008; 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.

34 Pheasant Run Drive, Skillman, NJ 08558 2 Farmer's Circle, Arlington, MA 02474
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www.neh-inc.com

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 Checklists completed during this validation to document the Tier I+-type reviews. The Checklists are an integral part of the DV Report as they contain 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
MW-005-070212	L1211857-01	7/2/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-005-070212-REP	L1211857-02	7/2/12	Groundwater	VOCs, PCBs, & Metals	FD of MW-005-070212
MW-04A-070212	L1211857-03	7/2/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-003-070212	L1211857-04	7/2/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-006-070212	L1211857-05	7/2/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-001-070212	L1211857-06	7/2/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-07A-070212	L1211857-07	7/2/12	Groundwater	VOCs, PCBs, & Metals	Field Sample [used for MS/MSD for VOCs & PCBs and MS/MD for Metals]
EB-001-070212	L1211857-08	7/2/12	Aqueous	VOCs, PCBs, & Metals	EB
TB-070212	L1211857-09	7/2/12	Aqueous	VOCs	TB

* Analysis for Total Suspended Solids (TSS) was also performed; however, validation of this parameter was not required.

Analytical method references:

VOCs: *Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry (GC/MS)* in EPA's Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846, Third Edition, Method 8260B, Rev. 2, December 1996.

PCBs: *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.

Metals: *Inductively Coupled Plasma – Mass Spectrometry* in EPA's Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846, Third Edition, Method 6020A, Rev. 1, February 2007.

II. Data Validation Report Summary

This Data Validation Report represents a Tier I+ validation of VOCs, PCB Aroclors, and Metals sample results and summary QC (method and matrix), which were used to evaluate accuracy, precision, and sensitivity compared to the NBH OU1 QAPP Addendum 2011 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*
- 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 VOCs, PCB Aroclors, and Metals, all results were considered usable for project decisions. Data are usable based on a comparison of the validated results 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 validation is presented in the attached Data Validation (DV) Checklists.

Sample Receipt / Log-In

Samples were all received intact, properly preserved, and within temperature acceptance criteria.

Accuracy

No contamination was observed in the Method Blanks, Trip Blank, or Equipment Blank (EB) associated with these groundwater samples.

Naphthalene was estimated (UJ) in all samples due to low LCS/LCSD recoveries. Several additional compounds recovered high compared criteria in the LCS/LCSD results; however, no actions were required (see the DV Checklist for details). Table 2 indicates the results qualified and potential bias due to LCS/LCSD exceedances.

MS/MSD analyses for VOCs, PCBs, and Metals were performed on sample MW-07A-070212. Accuracy was considered acceptable for all VOCs, PCBs, and Metals except for the VOCs bromomethane, 2-hexanone, naphthalene, and 1,2,3-trichlorobenzene. These four compounds were estimated (UJ) with possible low bias in sample MW-07A-070212 as shown in Table 2. Several other compounds recovered high compared to criteria in the VOC MS/MSD analysis; however, no actions were required (see the DV Checklist for details).

Precision

LCS/LCSD precision was acceptable for all VOCs and PCBs except for the VOC 1,2-dibromo-3-chloropropane. This compound was estimated (UJ) with indeterminate bias in the associated sample TB-070212 as shown in Table 2. Consistent with the NBH OU-1 QAPP Addendum 2012, an LCSD was not performed for Metals.

MS/MSD precision for VOCs and PCBs and sample/MD precision for Metals were all acceptable except for the VOC acetone. Acetone was estimated (UJ) with indeterminate bias in sample MW-07A-070212 as shown in Table 2. The laboratory noted that the relative percent difference (RPD) for copper was outside control limits in the sample/MD pair. However, these results were < 5xRL and met QAPP criteria for acceptance at these low levels; therefore, no action was required.

The field duplicate (FD) samples for this groundwater set were: MW-005-070212 and MW-005-070212-REP. The detected Metals results showed acceptable FD precision. All VOC and PCB results for these two samples were non-detect; therefore, while it is not possible to quantitatively evaluate FD precision through calculation of RPD, these results are consistent with each other. These FD results demonstrate acceptable precision and representativeness for VOCs, PCB Aroclors, and Metals in the groundwater matrix at this location.

Sensitivity & Reporting

Sensitivity in terms of sample-specific reporting limits (RLs), as compared to Project Action Limits (PALs) defined in QAPP Worksheet #15 of the NHB OU1 QAPP Addendum 2012 was met for all VOCs, PCB Aroclors, and Metals.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
EB-001-070212 MW-001-070212 MW-003-070212 MW-005-070212 MW-005-070212-REP MW-006-070212 MW-04A-070212 TB-070212	Naphthalene	UJ	L	Low LCS recovery
TB-070212	1,2-Dibromo-3-Chloropropane	UJ	I	LCS/LCSD imprecision
MW-07A-070212	Acetone	UJ	I	MS/MSD imprecision
MW-07A-070212	Bromomethane 1,2,3-Trichlorobenzene 2-Hexanone	UJ	L	Low MS recovery
MW-07A-070212	Naphthalene	UJ	L	Low LCS recovery + Low MS recovery

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:
LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
MS = Matrix Spike
MSD = Matrix Spike Duplicate

environmental chemistry consultants

Data Validation Report
EPA Region I Tier I+-type
VOCs by 8260B, PCB Aroclors by 8082, & Metals by 6020A

Client/Company:	Woods Hole Group, Inc. (WHG)
Site/Project Name:	New Bedford Harbor Superfund Site – OU1
Laboratory:	Alpha Analytical – Mansfield & Westborough, MA
Lab Project Number(s):	L1217887
Date(s) of Collection:	October 3, 2012
Number / Type Samples & Analyses for Validation:	7 groundwaters, 1 equipment blank (EB), and 1 trip blank (TB) for a project-specific list of Volatile Organic Compounds (VOC) by EPA SW-846 Method 8260B 7 groundwaters and 1 EB for Polychlorinated Biphenyl Compounds (PCB Aroclors) by EPA SW-846 Method 8082 and a project-specific list of Metals (cadmium, chromium, copper, & lead) by EPA SW-846 Method 6020A
Senior Data Reviewers:	Nancy C. Rothman, PhD, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	November 9, 2012

This EPA Region I Tier I+-type validation for VOCs, PCB Aroclors, and Metals 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 II – Volatile /Semivolatile Data Validation Functional Guidelines, Part III – Pesticide/PCB Data Validation Functional Guidelines*, Draft February 2004, and *Part IV – Inorganic Data Validation Functional Guidelines*, November 2008; 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.

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Phone: (908) 874-5686 (781) 643-4294
Email: nrothman@neh-inc.com schapnick@neh-inc.com
www.neh-inc.com

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 Checklists completed during this validation to document the Tier I+-type reviews. The Checklists are an integral part of the DV Report as they contain 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
MW-04A-100312	L1217887-01	10/3/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-04A-100312-REP	L1217887-02	10/3/12	Groundwater	VOCs, PCBs, & Metals	FD of MW-04A-100312
MW-005-100312	L1217887-03	10/3/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-003-100312	L1217887-04	10/3/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-006-100312	L1217887-05	10/3/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-001-100312	L1217887-06	10/3/12	Groundwater	VOCs, PCBs, & Metals	Field Sample
MW-07A-100312	L1217887-07	10/3/12	Groundwater	VOCs, PCBs, & Metals	Field Sample [used for MS/MSD for VOCs & PCBs and MS/MD for Metals]
EB-001-100312	L1217887-08	10/3/12	Aqueous	VOCs, PCBs, & Metals	EB
TB-100312	L1217887-09	10/3/12	Aqueous	VOCs	TB

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

* Analysis for Total Suspended Solids (TSS) was also performed; however, validation of this parameter was not required.

Analytical method references:

VOCs: *Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry (GC/MS)* in EPA's Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846, Third Edition, Method 8260B, Rev. 2, December 1996.

PCBs: *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.

Metals: *Inductively Coupled Plasma – Mass Spectrometry* in EPA's Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW-846, Third Edition, Method 6020A, Rev. 1, February 2007.

II. Data Validation Report Summary

This Data Validation Report represents a Tier I+ validation of VOCs, PCB Aroclors, and Metals sample results and summary QC (method and matrix), which were used to evaluate accuracy, precision, and sensitivity compared to the NBH OU1 QAPP Addendum 2011 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*
- 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 VOCs, PCB Aroclors, and Metals, all results were considered usable for project decisions. Data are usable based on a comparison of the validated results 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 validation is presented in the attached Data Validation (DV) Checklists.

Sample Receipt / Log-In

Samples were all received intact, properly preserved, and within temperature acceptance criteria.

Accuracy

No contamination was observed in the Method Blanks, Trip Blank, or Equipment Blank (EB) associated with these groundwater samples.

Acetone was estimated (J) in sample MW-04A-100312 due to high LCS/LCSD recoveries. Several additional compounds recovered LCS/LCSD outside criteria; however, no actions were required (see the DV Checklist for details). Table 2 indicates the result qualified and potential bias due to LCS/LCSD exceedances.

MS/MSD analyses for VOCs, PCBs, and Metals were performed on sample MW-07A-100312. Accuracy was considered acceptable for all VOCs, PCBs, and Metals except for the VOC bromomethane. This compound was estimated (UJ) with possible low bias in sample MW-07A-100312 as shown in Table 2. Several other compounds recovered high compared to criteria in the VOC MS/MSD analysis; however, no actions were required (see the DV Checklist for details).

Precision

LCS/LCSD precision was acceptable for all VOCs and PCBs except for the VOC 1,4-dioxane. This compound was estimated (UJ) with indeterminate bias in all groundwater samples except MW-001-100312 as shown in Table 2. Consistent with the NBH OU-1 QAPP Addendum 2012, an LCSD was not performed for Metals.

MS/MSD precision for VOCs and PCBs and sample/MD precision for Metals were all acceptable.

The field duplicate (FD) samples for this groundwater set were: MW-04A-100312 and MW-04A-100312-REP. The detected Metals and PCB results showed acceptable FD precision. FD precision was not acceptable for the VOC acetone resulting in estimation (J or UJ) of this compound in the FD pair as shown in Table 2. These FD results demonstrate acceptable precision and representativeness for all VOCs, PCB Aroclors, and Metals except for acetone in the groundwater matrix at this location.

Sensitivity & Reporting

Sensitivity in terms of sample-specific reporting limits (RLs), as compared to Project Action Limits (PALs) defined in QAPP Worksheet #15 of the NHB OU1 QAPP Addendum 2012 was met for all VOCs, PCB Aroclors, and Metals.

The project narrative indicated that samples MW-04A-100312, MW-04A-100312-REP, and MW-005-100312 (L1217887-01 through L1217887-03) contain peaks indicative of Aroclor 1242 and sample MW-003-100312 (L1217887-04) contains peaks indicative of Aroclor 1242 and Aroclor 1254 but area ratios in these samples (patterns of peaks) for these Aroclors did not match area ratios expected based on the standards of these Aroclors. Therefore, these detected results are considered to represent weathered Aroclors.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
MW-003-100312 MW-005-100312 MW-006-100312 MW-04A-100312 MW-04A-100312-REP MW-07A-100312	1,4-Dioxane (P-Dioxane)	UJ	I	LCS/LCSD imprecision
MW-07A-100312	Bromomethane	UJ	L	Low MS recovery
MW-04A-100312	Acetone	J	I	High LCS recovery + FD imprecision
MW-04A-100312-REP	Acetone	UJ	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:
LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
MS = Matrix Spike
FD = Field Duplicate

APPENDIX D. QUALITY ASSURANCE DATA COMPARISON

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TABLE OF CONTENTS

INTRODUCTION

Quality assurance (QA) samples from the 10/3/12 groundwater sampling event were submitted to Analytics Environmental Laboratory (AEL) in Portsmouth, NH. Samples from well MW-7A were submitted to AEL and the primary analytical laboratory, Alpha Analytical Laboratory (AAL), to compare analytical results and precision between labs. The QA data package was reported directly to the USACE-NAE project chemist for independent review. Both laboratories used the same approved methods outlined in the 2012 New Bedford QAPP.

This Appendix document includes a statistical comparison of results between labs, prepared by the USACE-NAE project chemist, as well as the full AEL laboratory report. The AAL laboratory report is included in Appendix B.

DATA COMPARISON TABLES (VALIDATED RESULTS)

PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING

10-03-12 Sampling Event

	ALPHA	Analytics
Laboratory Sample ID:	L1217887-07	71147-1
Field Sample ID:	**MW-07A-100312**	**MW-07A-100512-QA**
Date Sampled:	10/3/12	10/3/12
Date Received:	10/4/12	10/6/11
Date Extracted:	10/11/12	10/5/12
Date Analyzed:	10/11/12	10/11/12
Extraction Method:	5030B	5030B
Analysis Method:	8260B	8260B
Matrix:	**Groundwater**	**Groundwater**
Concentration Units:	ug/L	ug/L
Dilution Factor:	1.0	1.0

Target Analytes	Alpha RL	Primary Lab Results Alpha	Analytics RL	QA Lab Results Analytics	USACE Comparison Code	%RPD	USACE Discrep.
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	0.5 U	0	NC	
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,1-Dichloropropene	2.0 U	2.0 U	NA	NA	0	NC	
1,2,3-Trichlorobenzene	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
1,2,3-Trichloropropane	2.0 U	2.0 U	NA	NA	0	NC	
1,2,4-Trichlorobenzene	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
1,2,4-Trimethylbenzene	2.0 U	2.0 U	NA	NA	0	NC	
1,2-Dibromo-3-chloropropane	2.0 U	2.0 U	1.0 U	5.0 U	0	NC	
1,2-Dibromoethane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,3,5-Trimethylbenzene	2.0 U	2.0 U	NA	NA	0	NC	
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,3-Dichloropropane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1-Chlorohexane	1.0 U	1.0 U	NA	NA	0	NC	
1,4-Dioxane	250 U	250 U	NA	NA	0	NC	
2,2-Dichloropropane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
2-Butanone	5.0 U	5.0 U	10 U	25.0 U	0	NC	
2-Hexanone	5.0 U	5.0 U	10 U	10.0 U	0	NC	
4-Chlorotoluene	2.0 U	2.0 U	NA	NA	0	NC	
4-Isopropyltoluene	2.0 U	2.0 U	NA	NA	0	NC	
4-Methyl-2-pentanone	5.0 U	5.0 U	10 U	10 U	0	NC	
Acetone	5.0 U	5.0 U	10 U	10.0 U	0	NC	
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Bromobenzene	2.0 U	2.0 U	NA	NA	0	NC	
Bromochloromethane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Bromoform	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Bromomethane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Carbon disulfide	2.0 U	2.0 U	1.0 U	1.00 **U**	0	NC	
Carbon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Chloroethane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U	0	NC	
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
cis-1,3-Dichloropropene	0.5 U	0.5 U	1.0 U	1.0 U	0	NC	
Dibromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Dibromomethane	2.0 U	2.0 U	NA	NA	0	NC	
Dichlorodifluoromethane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Ethyl ether	2.0 U	2.0 U	NA	NA	0	NC	
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Ethyl-Tert-Butyl-Ether	2.0 U	2.0 U	NA	NA	0	NC	
Hexachlorobutadiene	0.6 U	0.6 U	NA	NA	0	NC	
Isopropyl Ether	2.0 U	2.0 U	NA	NA	0	NC	
Isopropylbenzene	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Methyl tert butyl ether	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Methylene chloride	2.0 U	2.0 U	5.0 U	5.0 U	0	NC	
Naphthalene	5.0 U	5.0 U	NA	NA	0	NC	
n-Butylbenzene	2.0 U	2.0 U	NA	NA	0	NC	
n-Propylbenzene	2.0 U	2.0 U	NA	NA	0	NC	
o-Chlorotoluene	2.0 U	2.0 U	NA	NA	0	NC	
o-Xylene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
p/m-Xylene	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
p-Chlorotoluene	2.0 U	2.0 U	NA	NA	0	NC	
p-Isopropyltoluene	2.0 U	2.0 U	NA	NA	0	NC	
sec-Butylbenzene	2.0 U	2.0 U	NA	NA	0	NC	
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
tert-Butylbenzene	2.0 U	2.0 U	NA	NA	0	NC	
Tertiary-Amyl Methyl Ether	2.0 U	2.0 U	NA	NA	0	NC	
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Tetrahydrofuran	10.0 U	10.0 U	NA	NA	0	NC	
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
trans-1,3-Dichloropropene	0.5 U	0.5 U	1.0 U	1.0 U	0	NC	
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Trichlorofluoromethane	2.0 U	2.0 U	1.0 U	1.0 U	0	NC	
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	0	NC	

SURROGATE RECOVERIES(%)	Primary Lab Alpha		QA Lab Analytics	
1,2-Dichloroethane (70-130)	85	%	1,2-Dichloroethane (70-120)	102 %
Toluene-d8 (70-130)	89	%	Toluene-d8 (85-120)	100 %
4-Bromofluorobenzene (70-130)	99	%	4-Bromofluorobenzene (75-120)	100 %
Dibromofluoromethane (70-130)	101	%	Dibromofluoromethane (85-115)	NR %

SEE APPENDIX A FOR KEY TO COMMENTS

U= Not Detected above the Reporting Limit

NA= Not Analyzed

NC= Not calculated

*=Surrogate recoveries outside acceptance limits

NBH Sawyer St GW QA-comp (100312).xlsx

DATA COMPARISON TABLES VALIDATED RESULTS

PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING

October 5, 2011 QA SAMPLING EVENT

	ALPHA	**Analytics**
Laboratory Sample ID:	L1116202	71147-1
Field Sample ID:	**MW-07A-100312**	**MW-07A-100312-QA**
Date Sampled:	10/3/12	10/3/12
Date Received:	10/4/12	10/5/12
Date Extracted:	10/10/12	10/15/12
Date Analyzed:	10/17/12	10/19/12
Extraction Method:	3510C	3510C
Analysis Method:	8082-Aroclors	8082-Aroclors
Matrix:	**Groundwater**	**Groundwater**
Concentration Units:	ug/L	ug/L
Dilution Factor:	1.0	1.0

	PRIMARY LAB	**ALPHA PRIMARY LAB**	**QA LAB**	**Analytics QA LAB**	**COMPARISON**		
TARGET ANALYTE	**RL**	**RESULTS**	**RL**	**RESULTS**		**CODE**	***%RPD***
Aroclor-1016	0.011 U	0.011 U	0.040 U	0.040 U	0	0	0
Aroclor-1221	0.011 U	0.011 U	0.040 U	0.040 U	0	0	0
Aroclor-1232	0.011 U	0.011 U	0.040 U	0.040 U	0	0	0
Aroclor-1242	0.011 U	0.011 U	0.040 U	0.040 U	0	0	0
Arolcor-1248	0.011 U	0.011 U	0.040 U	0.040 U	0	0	0
Arolcor-1254	0.011 U	0.011 U	0.040 U	0.040 U	0	0	0
Arolcor-1260	0.011 U	0.011 U	0.040 U	0.040 U	0	0	0
Total PCBs		0.011 U		0.040 U			0

SURROGATE RECOVERIES (%)	QA			CONTRACTOR	
	column 1	column 2		column 1	column 2
Tetrachloro-m-xylene (30-150%)	73	NR	Tetrachloro-m-xylene (40-130%)	82	NR
Decachlorobiphenyl (30-150%)	74	NR	Decachlorobiphenyl (40-130%)	61	NR

SEE APPENDIX A FOR KEY TO COMMENTS

U= Indicates compound was analyzed for but not detected above the reporting limit.

J= Indicates an estimated value. This flag is used when the result is less than the reporting limit, but > 1/2 MDL.

D= Surrogate diluted out.

NA= Not applicable

NR= Not reported

*= Surrogate recoveries outside acceptance limits

COMPARISON OF QA & CONTRACTOR VALIDATED RESULTS
PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING
October 5, 2011 QA SAMPLING EVENT

	ALPHA	**Analytics/TAL-VT**	
Laboratory Sample ID:	L1116202	200-13157-1	
Field Sample ID:	**MW-04A-100511**	**MW-04A-100312-QA**	
Date Sampled:	10/5/11	10/3/12	
Date Received:	10/6/11	10/11/12	
Date Digested:	10/18/11	10/15/12	
Date Analyzed:	10/20/11	10/18/12	
Analysis Method:	6020A	6020	
Matrix:	**Groundwater**	**Groundwater**	
Concentration Units:	ug/L	ug/L	
Dilution Factor:	1.0	1.0	

Target Analyte	ALPHA PRIMARY LAB RL		**ALPHA PRIMARY LAB RESULTS**		TAL-VT QA LAB RL		**TAL-VT QA LAB RESULTS**		COMPARISON CODE Criteria 20%	COMPARISON CODE QA split RPD's
Cadmium	0.5	U	0.50	U	0.10	U	**0.31**	**J**	NC	
Chromium	1.0	U	1.0	U	4.0	U	0.40	U	NC	
Copper	1.0	U	**2.0**		20	U	**1.9**	**J**	5	5%
Lead	1.0	U	1.0	U	2.0	U	**0.056**	**J**	NC	

SEE APPENDIX A FOR KEY TO COMMENTS
NR=NOT REPORTED
U= Not Detected at the Reporting Limit
B= Less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detction Limit (IDL).
J= Analyte detected below quantitation limit.
NC= Not Calculated

COMPARISON OF QA & CONTRACTOR VALIDATED RESULTS
PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING
October, 5, 2011 QA SAMPLING EVENT

	ALPHA	**Analytics/TAL-VT**	
Laboratory Sample ID:	L1217887-07	200-7401-1	
Field Sample ID:	**MW-7A-100312**	**MW-07A-100312-QA**	
Date Sampled:	10/3/12	10/3/12	
Date Received:	10/4/12	10/11/12	
Date Analyzed:	10/6/12	10/12/12	
Analysis Method:	2540D	2540D	
Matrix:	**Groundwater**	**Groundwater**	
Concentration Units:	mg/L	mg/L	
Dilution Factor:	1.0	1.0	

Inorganic Target Analyte	Analysis Method	ALPHA Primary Lab RL	**ALPHA PRIMARY lAB RESULTS**			TAL-VT QA LAB RL		**TAL-VT QA LAB RESULTS**		USACE COMPARISON CODE	*RPD*
Total Suspended Solids (TSS)	2540D	1.0	U	**2.30**	mg/l	0.48	U	0.48	U	0	***NC***

SEE APPENDIX A FOR KEY TO COMPARISON CODES
NR= NOT REPORTED
NC= NOT CALCULATED
U= Not detected at or above the Reporting Limit
J= Estimated value, below the Reporting Limit
LRL= Laboratory Reporting Limit

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800-929-9906
www.analyticslab.com

October 24, 2012

Mr. Mark Koenig
U.S. Army Engr District, New England
696 Virginia Road
Concord MA 01742-2751

RE: Analytical Results Case Narrative
Analytics Report #: 73934
New Bedford Harbor Groundwater
Project No: Superfund Project

Dear Mr. Koenig:

Enclosed please find the analytical results for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260B, Polychlorinated Biphenyls (PCBs) by EPA Method 8082, Total Suspended Solids (TSS) and selected Metals. The TSS and Metals were subcontracted to Test America Burlington VT

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits for the data generated by Analytics Environmental Laboratory. Subcontracted analytical non-conformances are addressed in the narrative sections of the subcontracted reports.

This Level II package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- VOC Form 1 Data Sheet for Samples and Blanks
- VOC Form 2 Surrogate Recoveries
- VOC Form 3 MS/MSD (LCS) Recoveries
- PCB Form 1 Data Sheet for Samples and Blanks
- PCB Form 10 Confirmation Results Form (if required)
- PCB Form 2 Surrogate Recoveries
- PCB Form 3 MS/MSD (LCS) Recoveries
- Subcontracted Reports and Narratives

Chain of Custody (COC) Forms and Sample Data Receipt Checklist AEL

QC NON-CONFORMANCE SUMMARY

Sample Receipt:
No exceptions.

General Reporting:
As required by the DoD QSM Version 4.2, results for this project were reported using a Limit of Quantitation (LOQ) and Limit of Detection (LOD). Results detected above the LOD but below the LOQ were reported as "J" flagged as estimates. Results above the LOQ were reported without "J" flags. The undetected or "U" value should be considered as "<LOD". Reporting "J" flags to the "Detection Limit" (DL) was not utilized for this project as the electronic data handling systems are not in place to handle 3 levels of reporting.

Volatile Organic Compounds (VOCs) by EPA 8260B:
This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed.

The laboratory blank (B101112B) had 1,2,4-Trichlorobenzene detected above the MDL but below the LOD. This compound was not detected in any samples for this SDG and results were reported without qualification.

The laboratory control samples (L8101112B/L810112B2) had high recovery for Dicchlorodifluoromethane and 2,2-Dichloropropane. Results were reported without qualification.

PCBs by EPA Method 8082:
The laboratory control sample (L101512PWB) had high recovery for PCB1260 on column#1. Column #2 and the laboratory control sample duplicate (L10152PWB) were in control. In addition the laboratory control pair had high RPD for PCB 1260 on column#1. No PCBs were detected and results were reported without qualification.

If you have any questions or I can be of further assistance, please do not hesitate to contact me.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness except for the conditions detailed in this narrative or in the subcontracted analytical narrative (s). The data contained in this hardcopy data package have been authorized for release by the Laboratory Director or the Quality Assurance Officer as verified by the following signature.

Sincerely
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. Mark Koenig
U.S. Army Engr District, New England
696 Virginia Road
Concord MA 01742-2751

Report Number: 73934

Revision: Rev. 0

Re: New Bedford Harbor (Project No: Superfund Project)

Enclosed are the results of the analyses on your sample(s). Samples were received on 05 October 2012 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
73934-1	10/03/12	MW-07A-100312-QA	EPA 8082 (PCBs only)	
	10/03/12	MW-07A-100312-QA	EPA 8260 Volatile Organics	
	10/03/12	MW-07A-100312-QA	Metals	
	10/03/12	MW-07A-100312-QA	Total Suspended Solids	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, and North Carolina, and is accredited by the Deparment of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

If you have any questions on these results, please do not hesitate to contact us.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 10/25/2012

Surrogate Compound Limits

Matrix: / Units:	Aqueous % Recovery	Solid % Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-120	70-120	EPA 624/8260B
Toluene-d8	85-120	85-120	
Bromofluorobenzene	75-120	75-120	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 625/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA)	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH
Volatile Petroleum Hydrocarbons			
2,5-Dibromotoluene (PID)	70-130	70-130	MADEP VPH May 2004 Rev1.1
2,5-Dibromotoluene (FID)	70-130	70-130	
Extracatable Petroleum Hydrocarbons			
1-chloro-octadecane (aliphatic)	40-140	40-140	MADEP EPH May 2004 Rev1.1
o-Terphenyl (aromatic)	40-140	40-140	
2-Fluorobiphenyl (Fractionation)	40-140	40-140	
2-Bromonaphthalene (fractionation)	40-140	40-140	

VOLATILE
DATA SUMMARIES

analytics environmental laboratory LLC

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800-929-9906

Mr. Mark Koenig
U.S. Army Engr District, New England
696 Virginia Road
Concord MA 01742-2751

October 12, 2012

CLIENT SAMPLE ID

Project Name: New Bedford Harbor

Project Number: Superfund Project

Field Sample ID: MW-07A-100312-QA

SAMPLE DATA

Lab Sample ID: 73934-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 10/03/12
Lab Receipt Date: 10/05/12
Analysis Date: 10/11/12

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	MDL µg/L	LOD µg/L	LOQ µg/L	Result µg/L	COMPOUND	MDL µg/L	LOD µg/L	LOQ µg/L	Result µg/L
1,1-Dichloroethane	0.20	0.50	1.0	U	Chlorobenzene	0.17	0.50	1.0	U
1,1,1-Trichloroethane	0.18	0.50	1.0	U	Chloroethane	0.50	0.50	1.0	U
1,1,2-Trichloroethane	0.11	0.50	1.0	U	Chloroform	0.20	0.50	1.0	U
1,1,2,2-Tetrachloroethane	0.13	0.50	1.0	U	Chloromethane	0.20	0.50	1.0	U
1,1,2-Trichloro-1,2,2-trifluoro-ethane	0.10	0.50	1.0	U	cis-1,2-Dichloroethene	0.11	0.50	1.0	U
1,1-Dichloroethene	0.13	0.50	1.0	U	cis-1,3-Dichloropropene	0.10	0.50	1.0	U
1,2-Dichlorobenzene	0.16	0.50	1.0	U	trans-1,3-Dichloropropene	0.10	0.50	1.0	U
1,2-Dichloroethane	0.50	0.50	1.0	U	Cyclohexane	0.10	0.50	1.0	U
1,2,3-Trichlorobenzene	0.13	0.50	1.0	U	Dibromochloromethane	0.15	0.50	1.0	U
1,2,4-Trichlorobenzene	0.13	0.50	1.0	U	Dichlorodifluoromethane	0.10	0.50	1.0	U
1,2-Dibromo-3-chloropropane	0.50	0.50	1.0	U	Ethylbenzene	0.20	0.50	1.0	U
1,2-Dibromoethane	0.15	0.50	1.0	U	Isopropyl benzene	0.13	0.50	1.0	U
1,2-Dichloropropane	0.50	0.50	1.0	U	Methyl acetate	0.10	0.50	1.0	U
1,3-Dichlorobenzene	0.20	0.50	1.0	U	Methyl-t-butyl ether	0.20	0.50	1.0	U
1,4-Dichlorobenzene	0.19	0.50	1.0	U	Methycyclohexane	0.10	0.50	1.0	U
2-Butanone	0.41	5.0	10	U	Methylene chloride	1.0	2.5	5.0	U
2-Hexanone	0.40	5.0	10	U	Styrene	0.20	0.50	1.0	U
4-Methyl-2-pentanone	0.44	5.0	10	U	Tetrachloroethene	0.19	0.50	1.0	U
Acetone	0.61	5.0	10	U	Toluene	0.20	0.50	1.0	U
Benzene	0.20	0.50	1.0	U	o-Xylene	0.20	0.50	1.0	U
Bromochloromethane	0.20	0.50	1.0	U	m,p-Xylene	0.40	0.50	1.0	U
Bromodichloromethane	0.15	0.50	1.0	U	Total Xylene	0.40	0.50	1.0	U
Bromoform	0.12	0.50	1.0	U	trans-1,2-Dichloroethene	0.20	0.50	1.0	U
Bromomethane	0.50	0.50	1.0	U	Trichloroethene	0.20	0.50	1.0	U
Carbon Disulfide	0.11	0.50	1.0	U	Trichlorofluoromethane	0.10	0.50	1.0	U
Carbon tetrachloride	0.20	0.50	1.0	U	Vinyl chloride	0.20	0.50	1.0	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	102%	d8-Toluene	100%	Bromofluorobenzene	100%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

COMMENTS:

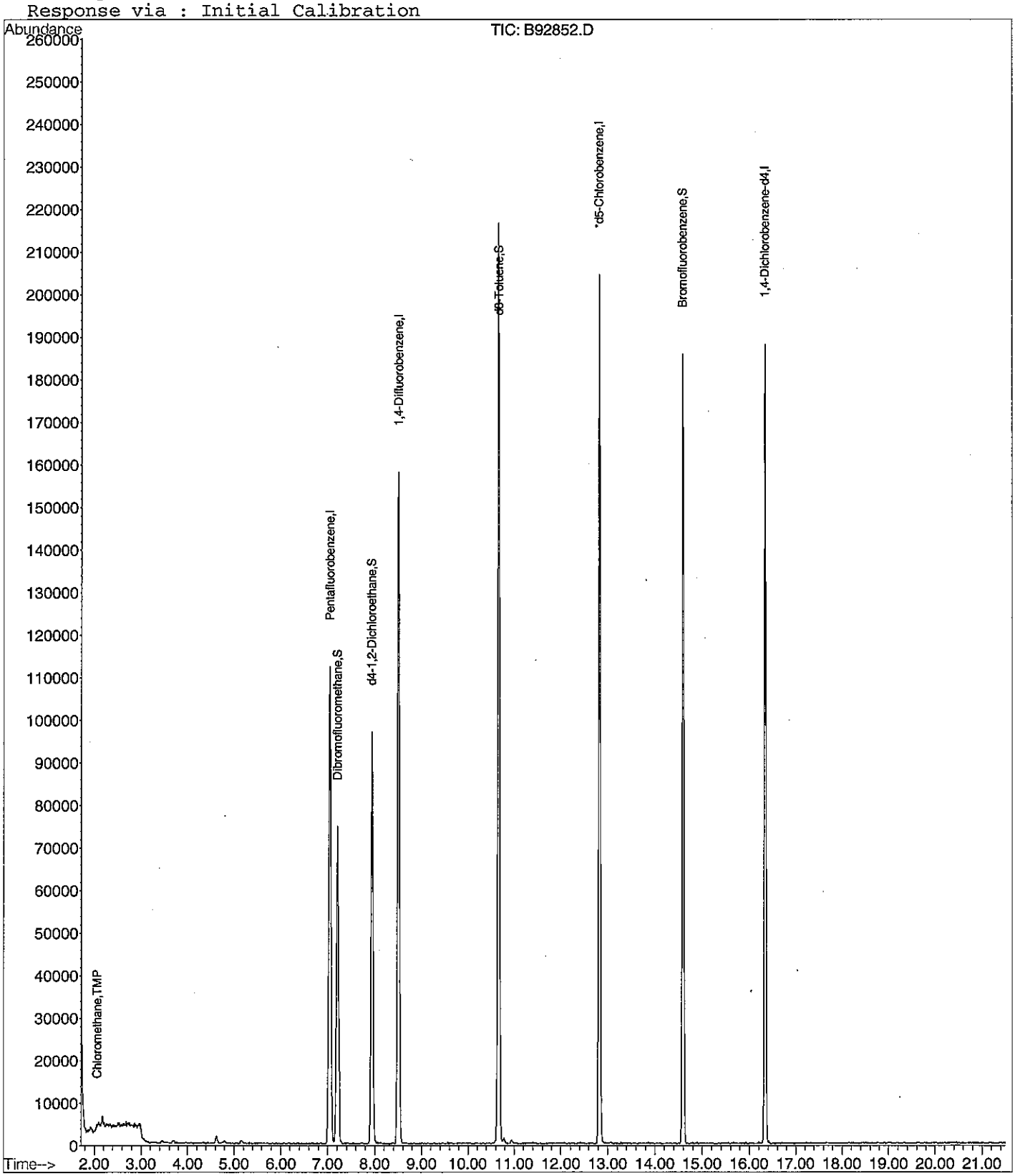
set2Column3Tier:Res(0):Rec(0) - ADAPT-52(3)AQNoDiox-3Tier

Authorized signature

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101112-B\B92852.D Vial: 20
Acq On : 11 Oct 2012 7:39 pm Operator: MT
Sample : 73934-1 Inst : Instrumen
Misc : 5000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 12 9:29 2012 Quant Results File: V810102B.RES

Method : C:\HPCHEM\1\METHODS\V810102B.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Thu Oct 11 14:32:42 2012
Response via : Initial Calibration



VOLATILE
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:VOCQC.doc

analytics environmental laboratory LLC

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U.S. Army Engr District, New England
696 Virginia Road
Concord MA 01742-2751

October 12, 2012

SAMPLE DATA

Lab Sample ID: B810112B
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: N/A
Lab Receipt Date: N/A
Analysis Date: 10/11/12

CLIENT SAMPLE ID

Project Name: New Bedford Harbor
Project Number: Superfund Project
Field Sample ID: LAB QC

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	MDL µg/L	LOD µg/L	LOQ µg/L	Result µg/L	COMPOUND	MDL µg/L	LOD µg/L	LOQ µg/L	Result µg/L
1,1-Dichloroethane	0.20	0.50	1.0	U	Chlorobenzene	0.17	0.50	1.0	U
1,1,1-Trichloroethane	0.18	0.50	1.0	U	Chloroethane	0.50	0.50	1.0	U
1,1,2-Trichloroethane	0.11	0.50	1.0	U	Chloroform	0.20	0.50	1.0	U
1,1,2,2-Tetrachloroethane	0.13	0.50	1.0	U	Chloromethane	0.20	0.50	1.0	U
1,1,2-Trichloro-1,2,2-trifluoro-ethane	0.10	0.50	1.0	U	cis-1,2-Dichloroethene	0.11	0.50	1.0	U
1,1-Dichloroethene	0.13	0.50	1.0	U	cis-1,3-Dichloropropene	0.10	0.50	1.0	U
1,2-Dichlorobenzene	0.16	0.50	1.0	U	trans-1,3-Dichloropropene	0.10	0.50	1.0	U
1,2-Dichloroethane	0.50	0.50	1.0	U	Cyclohexane	0.10	0.50	1.0	U
1,2,3-Trichlorobenzene	0.13	0.50	1.0	U	Dibromochloromethane	0.15	0.50	1.0	U
1,2,4-Trichlorobenzene	0.13	0.50	1.0	**0.13 J**	Dichlorodifluoromethane	0.10	0.50	1.0	U
1,2-Dibromo-3-chloropropane	0.50	0.50	1.0	U	Ethylbenzene	0.20	0.50	1.0	U
1,2-Dibromoethane	0.15	0.50	1.0	U	Isopropyl benzene	0.13	0.50	1.0	U
1,2-Dichloropropane	0.50	0.50	1.0	U	Methyl acetate	0.10	0.50	1.0	U
1,3-Dichlorobenzene	0.20	0.50	1.0	U	Methyl-t-butyl ether	0.20	0.50	1.0	U
1,4-Dichlorobenzene	0.19	0.50	1.0	U	Methycyclohexane	0.10	0.50	1.0	U
2-Butanone	0.41	5.0	10	U	Methylene chloride	1.0	2.5	5.0	U
2-Hexanone	0.40	5.0	10	U	Styrene	0.20	0.50	1.0	U
4-Methyl-2-pentanone	0.44	5.0	10	U	Tetrachloroethene	0.19	0.50	1.0	U
Acetone	0.61	5.0	10	U	Toluene	0.20	0.50	1.0	U
Benzene	0.20	0.50	1.0	U	o-Xylene	0.20	0.50	1.0	U
Bromochloromethane	0.20	0.50	1.0	U	m,p-Xylene	0.40	0.50	1.0	U
Bromodichloromethane	0.15	0.50	1.0	U	Total Xylene	0.40	0.50	1.0	U
Bromoform	0.12	0.50	1.0	U	trans-1,2-Dichloroethene	0.20	0.50	1.0	U
Bromomethane	0.50	0.50	1.0	U	Trichloroethene	0.20	0.50	1.0	U
Carbon Disulfide	0.11	0.50	1.0	U	Trichlorofluoromethane	0.10	0.50	1.0	U
Carbon tetrachloride	0.20	0.50	1.0	U	Vinyl chloride	0.20	0.50	1.0	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	101%	d8-Toluene	98%	Bromofluorobenzene	102%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

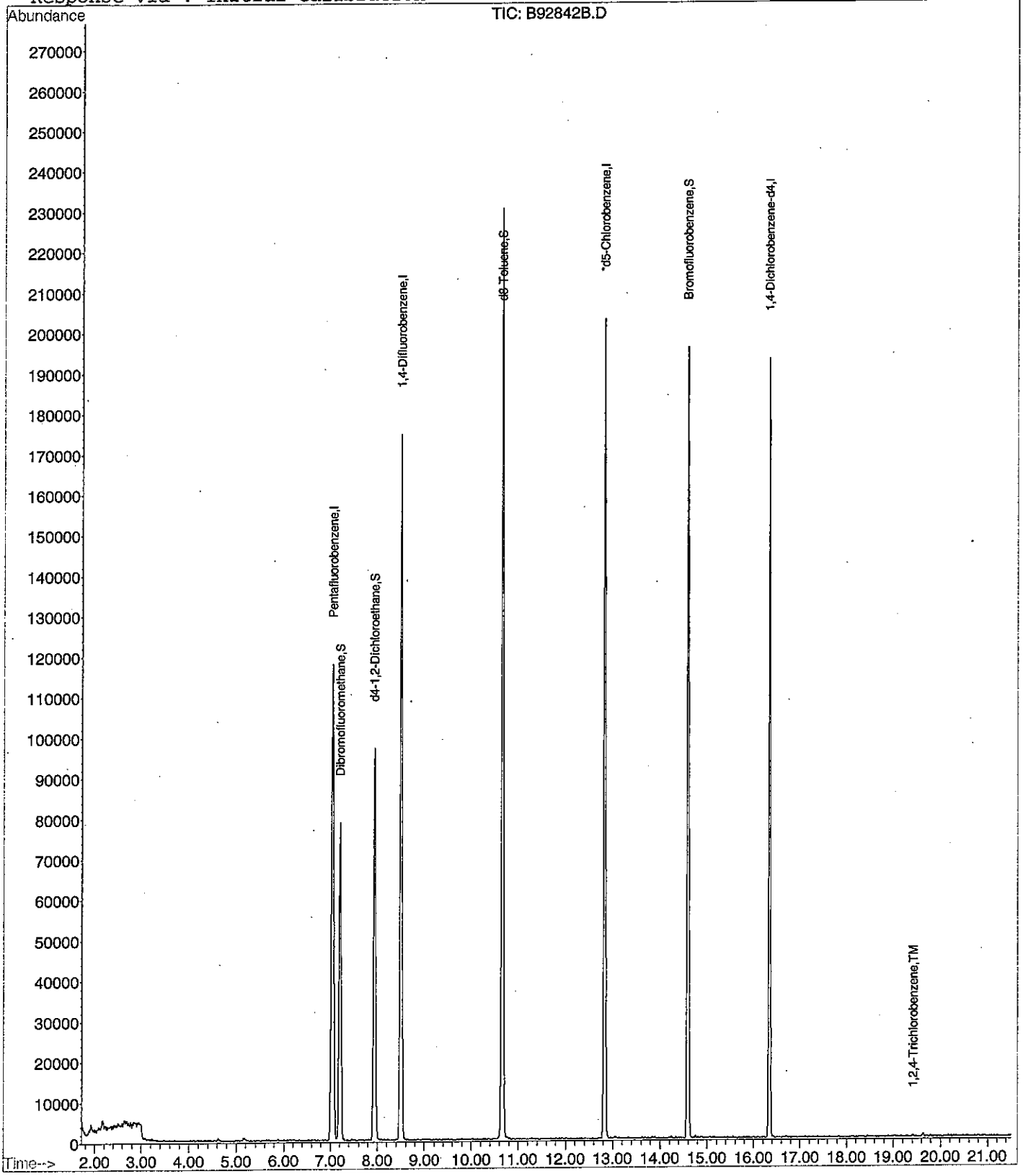
COMMENTS:

Authorized signature

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101112-B\B92842B.D Vial: 10
Acq On : 11 Oct 2012 2:13 pm Operator: MT
Sample : B810112B Inst : Instrumen
Misc : 5000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 12 9:29 2012 Quant Results File: V810102B.RES

Method : C:\HPCHEM\1\METHODS\V810102B.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Thu Oct 11 14:32:42 2012
Response via : Initial Calibration



VOLATILE ORGANIC AQUEOUS
LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: B
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 73934
Non-spiked sample: B810112B
Spike: L810112B
Spike duplicate: L810112B2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	20	80	120	15	0.0	24	122	*	24	122	*	0	
Chloromethane	20	80	120	15	0.0	21	105		20	101		4	
Vinyl Chloride	20	80	120	15	0.0	20	98		19	97		2	
Bromomethane	20	80	120	15	0.0	22	108		22	112		4	
Chloroethane	20	80	120	15	0.0	20	102		19	97		5	
Trichlorofluoromethane	20	80	120	15	0.0	20	101		20	101		1	
Diethyl ether	20	80	120	15	0.0	19	95		18	92		2	
1,1,2-Trichlorotrifluoroethane	20	80	120	15	0.0	20	99		20	98		1	
Acetone	100	70	130	15	0.0	100	100		98	98		2	
1,1-Dichloroethene	20	80	120	15	0.0	21	105		20	102		3	
Methyl iodide	20	70	130	15	0.0	21	103		21	105		3	
Di-isopropyl ether (DIPE)	20	80	120	15	0.0	22	111		22	108		3	
Methylene Chloride	20	80	120	15	0.0	20	101		20	100		1	
Carbon Disulfide	20	70	130	15	0.0	19	95		19	93		2	
Acrylonitrile	20	70	130	15	0.0	21	106		22	112		5	
Methyl-tert-butyl ether (MTBE)	40	80	120	15	0.0	42	104		44	109		5	
trans-1,2-Dichloroethene	20	80	120	15	0.0	21	103		20	101		2	
1,1-Dichloroethane	20	80	120	15	0.0	21	103		20	102		2	
Methyl ethyl ketone	100	70	130	15	0.0	97	97		100	100		3	
Ethyl t-butyl ether (ETBE)	20	80	120	15	0.0	23	113		23	114		1	
2,2-Dichloropropane	20	80	120	15	0.0	23	117		24	122	*	4	
cis-1,2-Dichloroethene	20	80	120	15	0.0	21	106		21	103		3	
t-Amyl methyl ether (TAME)	20	80	120	15	0.0	22	109		22	109		0	
Chloroform	20	80	120	15	0.0	21	104		20	101		2	
Bromochloromethane	20	80	120	15	0.0	22	112		22	109		3	
Tetrahydrofuran	20	70	130	15	0.0	21	104		20	99		5	
1,1,1-Trichloroethane	20	80	120	15	0.0	20	98		20	98		0	
1,1-Dichloropropene	20	80	120	15	0.0	20	100		20	99		1	
Carbon Tetrachloride	20	80	120	15	0.0	20	101		20	101		0	
1,2-Dichloroethane	20	80	120	15	0.0	20	101		20	102		1	
Benzene	20	80	120	15	0.0	19	95		19	93		3	
Trichloroethene	20	80	120	15	0.0	20	99		19	96		2	
1,2-Dichloropropane	20	80	120	15	0.0	21	106		21	103		3	
Methylmethacrylate	20	70	130	15	0.0	20	102		21	103		1	
Methyl acetate	20	80	120	15	0.0	19	94		19	96		2	
Cyclohexane	20	80	120	15	0.0	22	108		22	109		1	
Bromodichloromethane	20	80	120	15	0.0	22	108		21	103		5	
Dibromomethane	20	80	120	15	0.0	20	102		20	101		1	
1,4-Dioxane	500	70	130	15	0.0	431	86		481	96		11	
Methylcyclohexane	20	70	130	15	0.0	23	115		22	112		3	
2-Hexanone	100	70	130	15	0.0	101	101		101	101		0	
Methyl isobutyl ketone	100	80	120	15	0.0	102	102		102	102		0	
cis-1,3-Dichloropropene	20	80	120	15	0.0	22	108		21	103		4	
Toluene	20	80	120	15	0.0	21	103		19	97		5	
trans-1,3-Dichloropropene	20	80	120	15	0.0	22	112		21	107		5	
1,1,2-Trichloroethane	20	80	120	15	0.0	22	109		21	105		3	
1,3-Dichloropropane	20	80	120	15	0.0	21	107		21	105		2	
Tetrachloroethene	20	80	120	15	0.0	21	105		20	102		3	
Dibromochloromethane	20	80	120	15	0.0	22	108		21	106		2	
1,2-Dibromoethane	20	80	120	15	0.0	22	110		22	109		1	
Chlorobenzene	20	80	120	15	0.0	21	105		20	100		4	

VOA FORM 3

VOLATILE ORGANIC AQUEOUS
LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: B
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 73934
Non-spiked sample: B810112B
Spike: L810112B
Spike duplicate: L810112B2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
1,1,1,2-Tetrachloroethane	20	80	120	15	0.0	22	109		21	105		3	
Ethylbenzene	20	80	120	15	0.0	20	101		19	97		5	
m,p-Xylene	40	80	120	15	0.0	41	103		40	100		3	
o-Xylene	20	80	120	15	0.0	22	111		21	105		5	
Styrene	20	80	120	15	0.0	22	108		21	103		5	
Bromoform	20	80	120	15	0.0	22	109		22	109		1	
Isopropylbenzene	20	80	120	15	0.0	21	107		20	102		5	
1,1,2,2-Tetrachloroethane	20	80	120	15	0.0	22	108		21	106		1	
1,2,3-Trichloropropane	20	80	120	15	0.0	21	105		21	105		0	
n-Propylbenzene	20	80	120	15	0.0	21	104		20	100		4	
Bromobenzene	20	80	120	15	0.0	20	101		20	101		1	
1,3,5-Trimethylbenzene	20	80	120	15	0.0	21	104		20	99		5	
2-Chlorotoluene	20	80	120	15	0.0	22	108		20	101		6	
4-Chlorotoluene	20	80	120	15	0.0	20	102		20	99		4	
tert-butylbenzene	20	80	120	15	0.0	21	103		21	106		3	
1,2,4-Trimethylbenzene	20	80	120	15	0.0	20	101		20	99		2	
sec-butylbenzene	20	80	120	15	0.0	21	105		21	105		0	
p-isopropyltoluene	20	80	120	15	0.0	21	106		21	103		3	
1,3-Dichlorobenzene	20	80	120	15	0.0	21	106		21	104		2	
1,4-Dichlorobenzene	20	80	120	15	0.0	21	107		21	105		2	
n-butylbenzene	20	80	120	15	0.0	21	104		21	107		2	
1,2-Dichlorobenzene	20	80	120	15	0.0	21	105		21	103		2	
1,2-Dibromo-3-chloropropane	20	80	120	15	0.0	21	105		21	106		1	
1,2,4-Trichlorobenzene	20	80	120	15	0.0	20	99		21	103		4	
Hexachlorobutadiene	20	80	120	15	0.0	21	106		23	113		6	
Naphthalene	20	80	120	15	0.0	20	100		21	107		7	
1,2,3-Trichlorobenzene	20	80	120	15	0.0	20	102		21	107		5	
1,3,5-Trichlorobenzene	20	80	120	15	0.0	20	102		21	106		4	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

VOA FORM 3

PCB
DATA SUMMARIES

analytics environmental laboratory LLC
195 Commerce Way
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800-929-9906

Mr. Mark Koenig
U.S. Army Engr District, New England
696 Virginia Road
Concord MA 01742-2751

October 24, 2012

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: New Bedford Harbor

Project Number: Superfund Project

Field Sample ID: MW-07A-100312-QA

Lab Sample ID: 73934-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 0.4
Collection Date: 10/03/12
Lab Receipt Date: 10/05/12
Extraction Date: 10/15/12
Analysis Date: 10/19/12

PCB ANALYTICAL RESULTS

COMPOUND	MDL µg/L	Limit of Detection µg/L	Limit of Quantitation µg/L	Results µg/L
PCB-1016	0.008	0.02	0.04	U
PCB-1221	0.008	0.02	0.04	U
PCB-1232	0.008	0.02	0.04	U
PCB-1242	0.008	0.02	0.04	U
PCB-1248	0.008	0.02	0.04	U
PCB-1254	0.008	0.02	0.04	U
PCB-1260	0.008	0.02	0.04	U
PCB-1262	0.008	0.02	0.04	U
PCB-1268	0.008	0.02	0.04	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	61	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

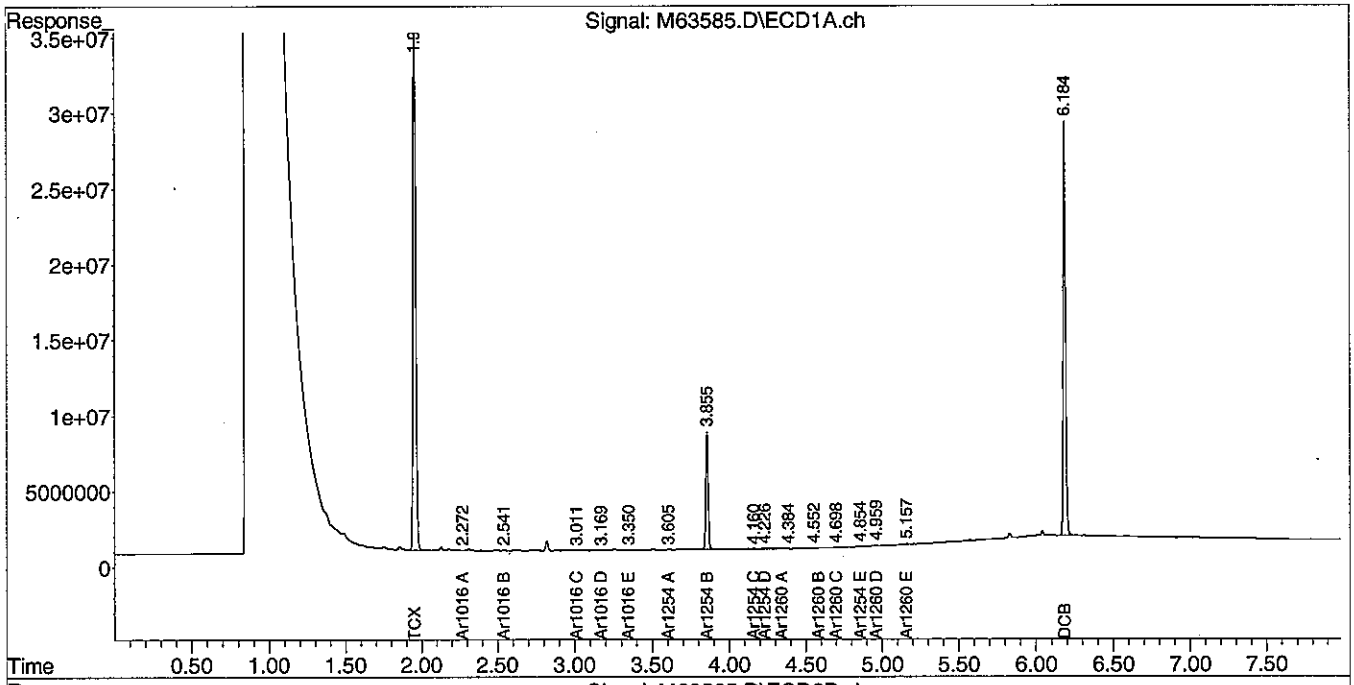
PCB Report

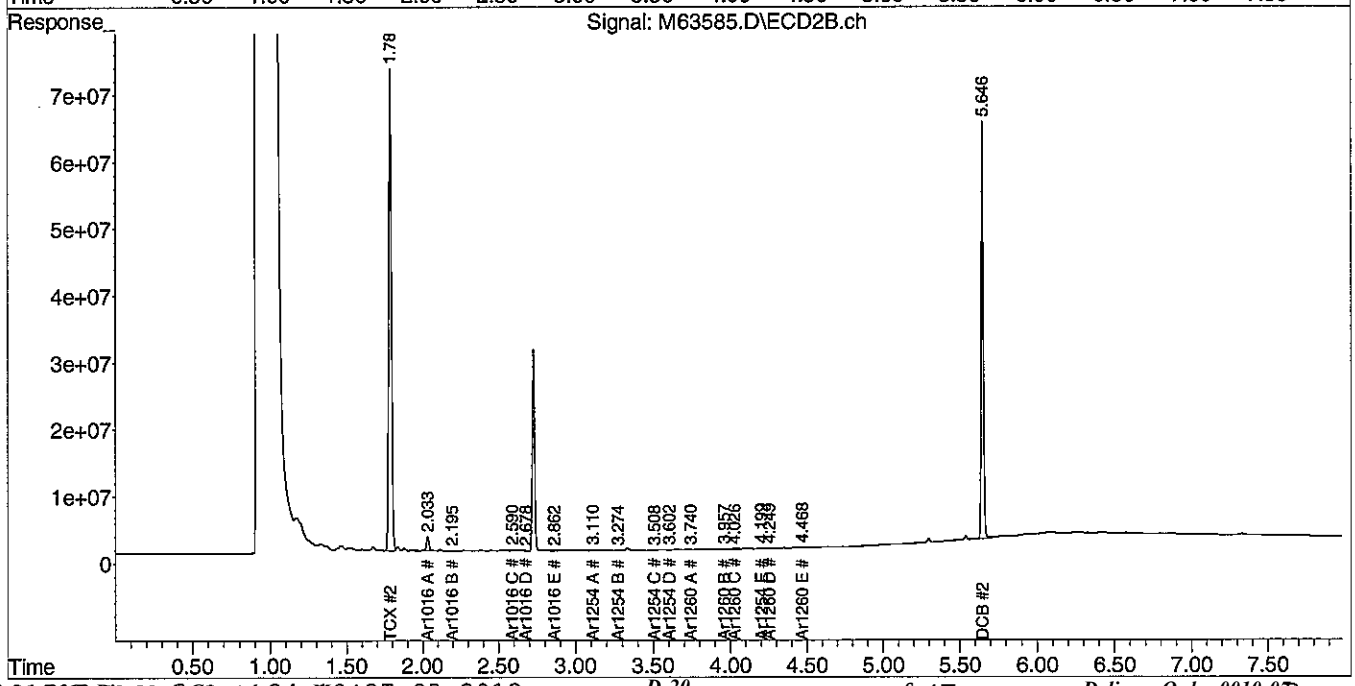
Authorized signature

Data Path : C:\msdchem\1\DATA\101912-M\
Data File : M63585.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Oct 2012 2:44 pm
Operator : JK
Sample : 73934-1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Oct 24 10:27:03 2012
Quant Method : C:\msdchem\1\METHODS\PCB101812.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Fri Oct 19 09:56:31 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





analytics environmental laboratory LLC

PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. Mark Koenig
U.S. Army Engr District, New England
696 Virginia Road
Concord MA 01742-2751

October 24, 2012

CLIENT SAMPLE ID

Project Name: New Bedford Harbor

Project Number: Superfund Project

Field Sample ID: Lab QC

SAMPLE DATA

Lab Sample ID: B101512PW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 0.4
Collection Date:
Lab Receipt Date:
Extraction Date: 10/15/12
Analysis Date: 10/17/12

PCB ANALYTICAL RESULTS

COMPOUND	MDL µg/L	Limit of Detection µg/L	Limit of Quantitation µg/L	Results µg/L
PCB-1016	0.008	0.02	0.04	U
PCB-1221	0.008	0.02	0.04	U
PCB-1232	0.008	0.02	0.04	U
PCB-1242	0.008	0.02	0.04	U
PCB-1248	0.008	0.02	0.04	U
PCB-1254	0.008	0.02	0.04	U
PCB-1260	0.008	0.02	0.04	U
PCB-1262	0.008	0.02	0.04	U
PCB-1268	0.008	0.02	0.04	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	79	%
Decachlorobiphenyl	75	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

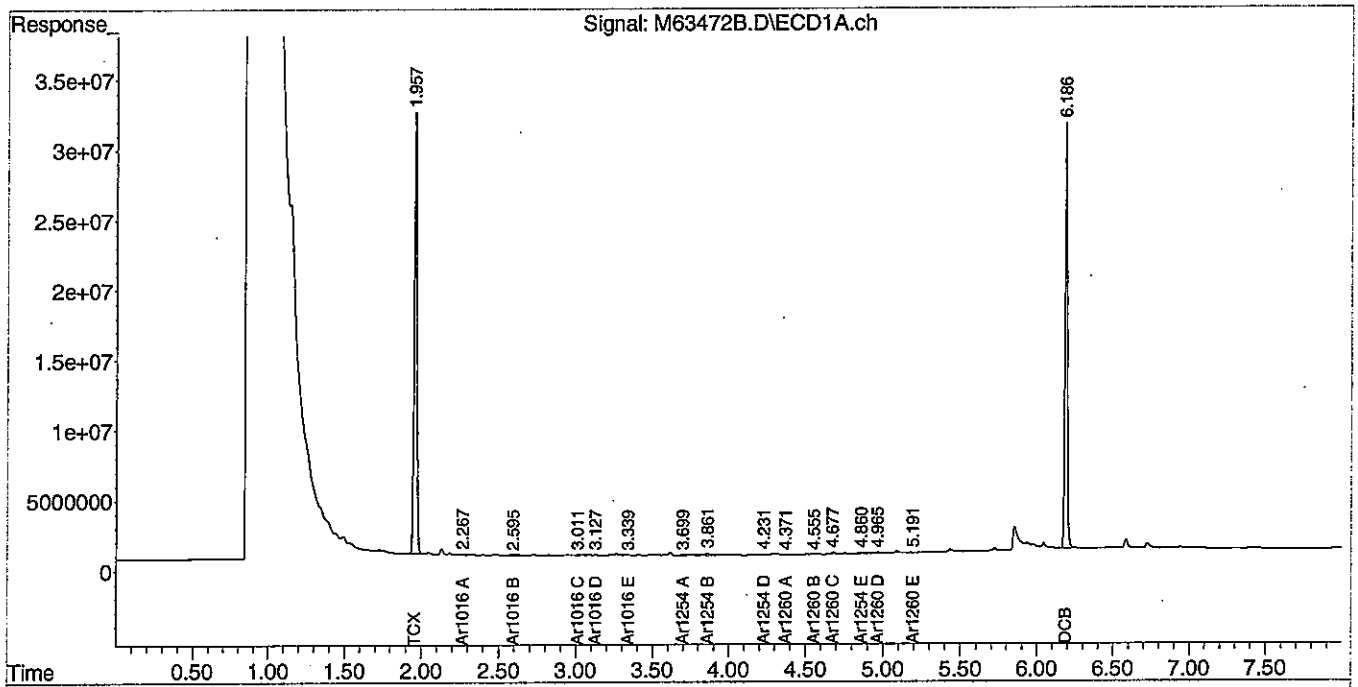
Authorized signature

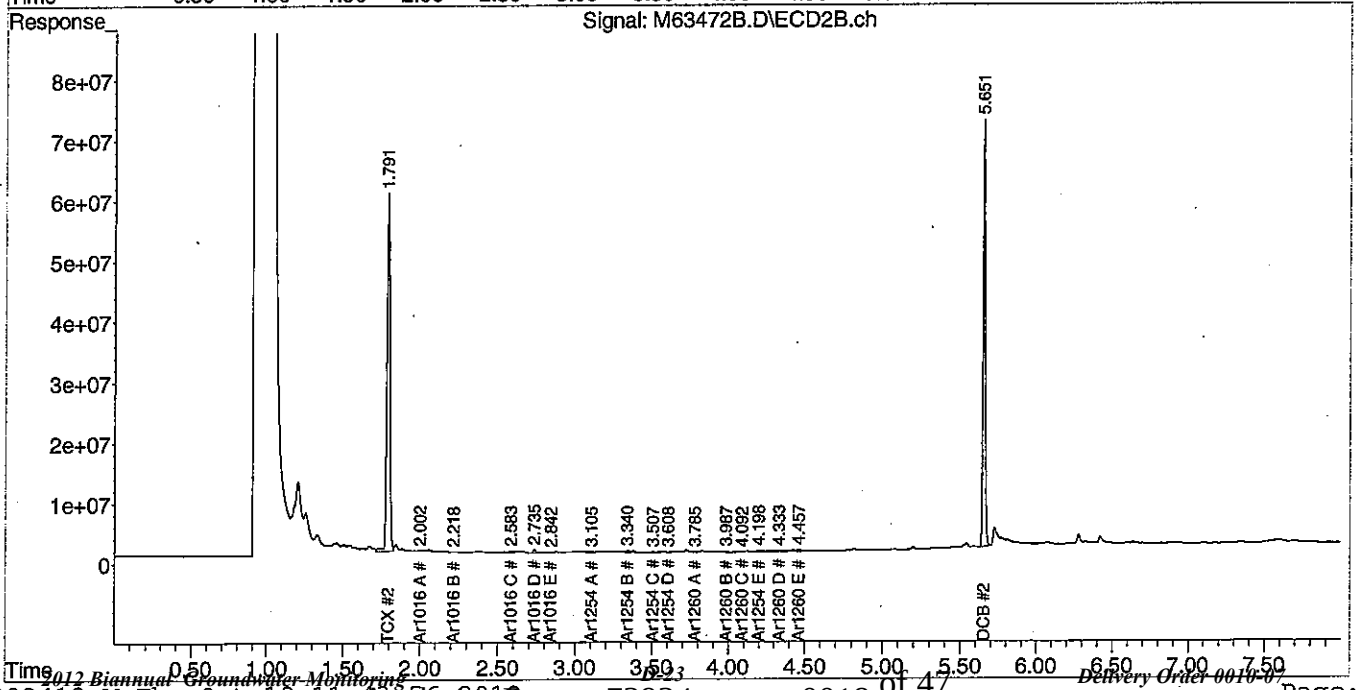
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\101712-M\
Data File : M63472B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2012 6:44 pm
Operator : JK
Sample : B101512PW
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Oct 18 11:43:56 2012
Quant Method : C:\msdchem\1\METHODS\PCB092412.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Tue Oct 16 15:28:56 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





analytics environmental laboratory LLC

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800-929-9906

Mr. Mark Koenig
U.S. Army Engr District, New England
696 Virginia Road
Concord MA 01742-2751

October 24, 2012

CLIENT SAMPLE ID

Project Name: New Bedford Harbor

Project Number: Superfund Project

Field Sample ID: Lab QC

SAMPLE DATA

Lab Sample ID: B101512PW RR
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 0.4
Collection Date:
Lab Receipt Date:
Extraction Date: 10/15/12
Analysis Date: 10/19/12

PCB ANALYTICAL RESULTS

COMPOUND	MDL µg/L	Limit of Detection µg/L	Limit of Quantitation µg/L	Results µg/L
PCB-1016	0.008	0.02	0.04	U
PCB-1221	0.008	0.02	0.04	U
PCB-1232	0.008	0.02	0.04	U
PCB-1242	0.008	0.02	0.04	U
PCB-1248	0.008	0.02	0.04	U
PCB-1254	0.008	0.02	0.04	U
PCB-1260	0.008	0.02	0.04	U
PCB-1262	0.008	0.02	0.04	U
PCB-1268	0.008	0.02	0.04	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	84	%
Decachlorobiphenyl	77	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

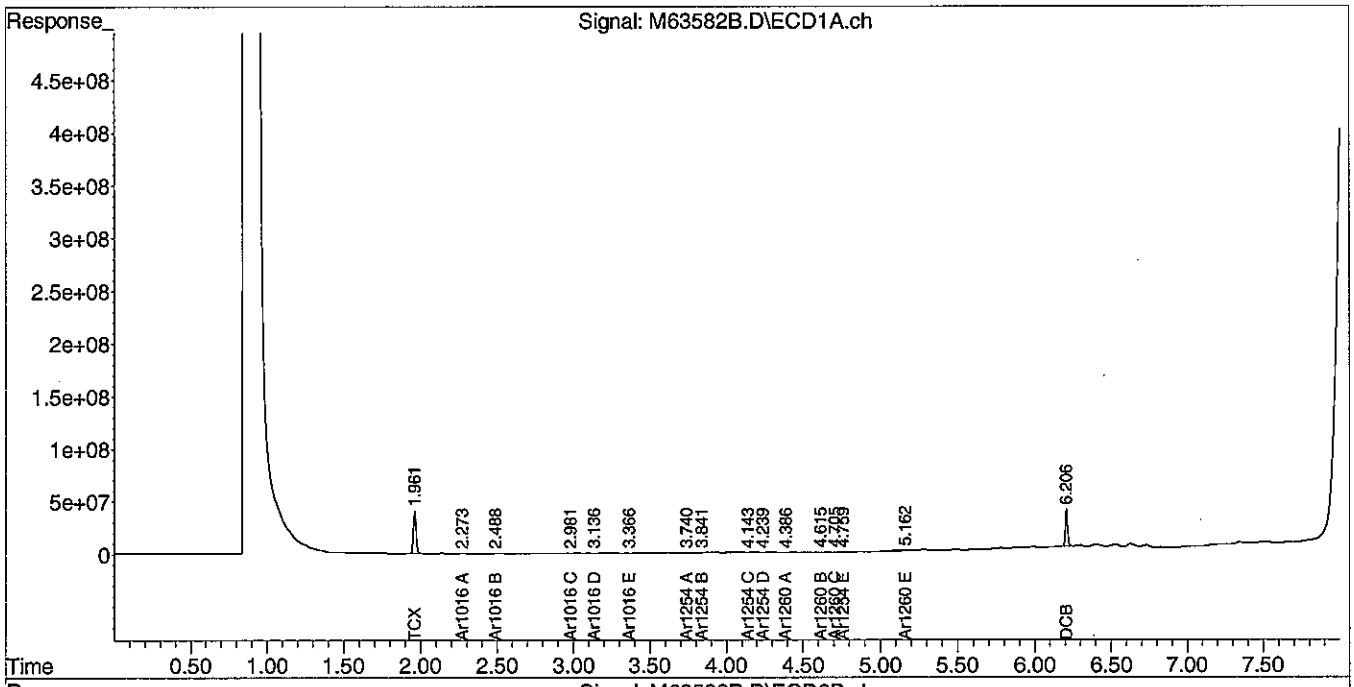
PCB Report

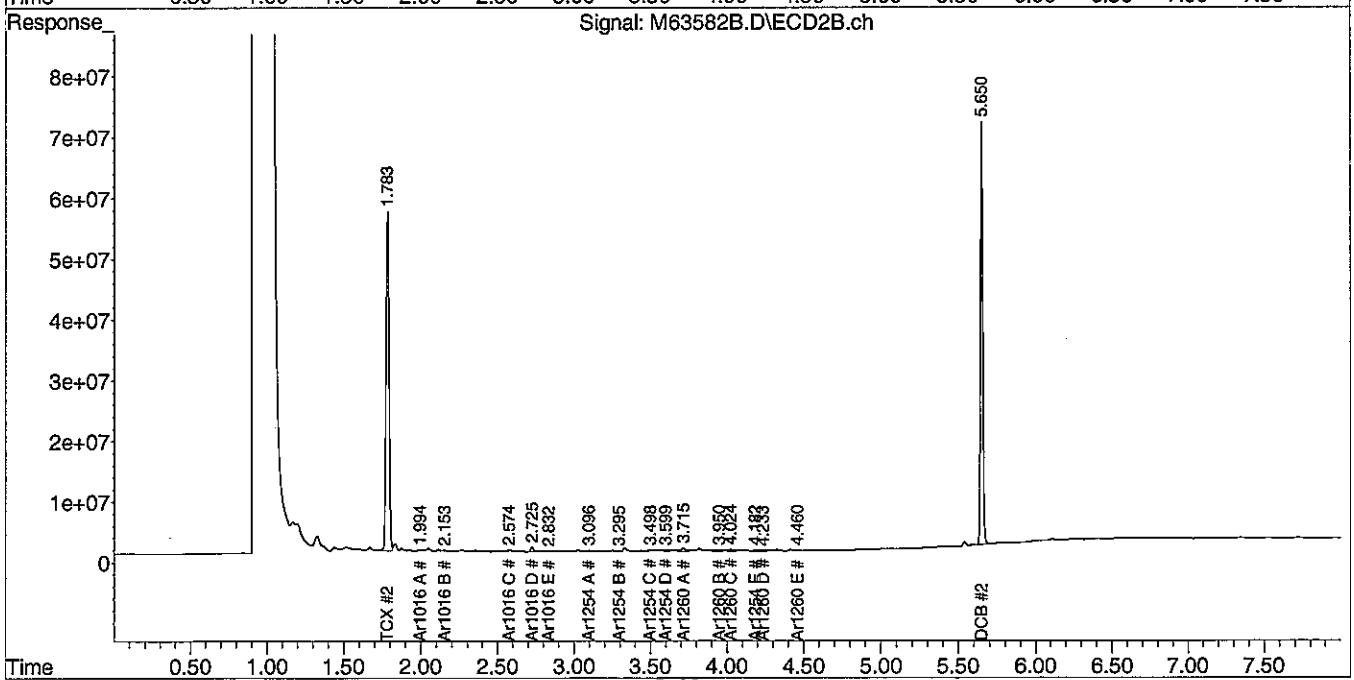
Authorized signature

Data Path : C:\msdchem\1\DATA\101912-M\
Data File : M63582B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 19 Oct 2012 2:14 pm
Operator : JK
Sample : B101512PW,RR
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Oct 24 10:24:15 2012
Quant Method : C:\msdchem\1\METHODS\PCB101812.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Fri Oct 19 09:56:30 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 73934

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B101512PW	79		75		76		65	
L101512PWB	84		82		81		72	
LD101512PWB	76		78		74		69	

	Lower Limit	Upper Limit
SMC #1 = TCX	46	122
SMC #2 = DCB	40	135

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB AQUEOUS
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 73934

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B101512PW,RR	84		77		64		69	
L101512PWB,RR	81		77		72		76	
LD101512PWB,RR	77		75		68		73	
73934-1	82		61		73		61	

		Lower Limit	Upper Limit
SMC #1 =	TCX	46	122
SMC #2 =	DCB	40	135

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B101512PW

Spike: LI01512PWB

Spike duplicate: LD101512PWB

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	2.0	2.0	70	120	25	0.0	1.9	93.6		1.8	89.9		4.1	
PCB 1260	2.0	2.0	70	120	25	0.0	1.8	91.0		1.8	87.7		3.8	
PCB 1016 #2	2.0	2.0	70	120	25	0.0	1.5	75.9		1.5	73.1		3.8	
PCB 1260 #2	2.0	2.0	70	120	25	0.0	1.7	85.0		1.6	82.1		3.5	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

PCB FORM 3

PCB AQUEOUS
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B101512PW,RR

Spike: LI01512PWB,RR

Spike duplicate: LD101512PWB,RR

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
PCB 1016	5.0	5.0	60	140	25	0.0	4.9	97.6		3.8	76.7		24.0	
PCB 1260	5.0	5.0	60	140	25	0.0	8.5	170.8	*	4.4	87.2		64.7	*
PCB 1016 #2	5.0	5.0	60	140	25	0.0	3.7	74.7		3.7	74.8		0.1	
PCB 1260 #2	5.0	5.0	60	140	25	0.0	4.5	90.3		4.4	88.3		2.3	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

SUBCONTRACTED REPORTS
&
NARRATIVES

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 200-13157-1

SDG Number: 73934

Job Description: New Bedford Harbor Groundwater

For:
Analytics Environmental Laboratory, LLC
195 Commerce Way
Suite E
Portsmouth, NH 03801

Attention: Ms. Kate Zaleski

Approved for release.
James W Madison
Project Manager I
10/24/2012 4:09 PM

James W Madison
Project Manager I
jim.madison@testamericainc.com
10/24/2012

cc: Ms. Casey Payne

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.
TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com

CASE NARRATIVE

Client: Analytics Environmental Laboratory, LLC

Project: New Bedford Harbor Groundwater

Report Number: 200-13157-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 10/11/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.7 C.

METALS (ICPMS)
Sample MW-07A-100312-QA was analyzed for metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 10/15/2012 and analyzed on 10/18/2012.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS
Sample MW-07A-100312-QA was analyzed for total suspended solids in accordance with SM20 2540D. The sample was analyzed on 10/12/2012. Note that the sample was received after the routine holding time had expired, however the analysis proceeded at the client's request.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

METHOD SUMMARY

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP/MS)	TAL BUR	SW846 6020A	
Preparation, Total Metals	TAL BUR		SW846 3010A
Solids, Total Suspended (TSS)	TAL BUR	SM SM 2540D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Method	Analyst	Analyst ID
SW846 6020A	Lyons, Benjamin	BL
SM SM 2540D	Nelson, Andrea J	AJN

SAMPLE SUMMARY

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-13157-1	MW-07A-100312-QA	Water	10/03/2012 1630	10/11/2012 1000

SAMPLE RESULTS

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Client Sample ID: **MW-07A-100312-QA**

Lab Sample ID: 200-13157-1
Client Matrix: Water

Date Sampled: 10/03/2012 1630
Date Received: 10/11/2012 1000

6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	200-46730	Instrument ID:	METICPMS2
Prep Method:	3010A	Prep Batch:	200-46470	Lab File ID:	101812-04.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	10/18/2012 2156			Final Weight/Volume:	100 mL
Prep Date:	10/15/2012 0900				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Cadmium	0.31	J	0.046	2.0
Chromium	0.40	U	0.11	4.0
Copper	1.9	J	0.23	20
Lead	0.056	J	0.024	2.0

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

General Chemistry

Client Sample ID: **MW-07A-100312-QA**

Lab Sample ID: 200-13157-1
Client Matrix: Water

Date Sampled: 10/03/2012 1630
Date Received: 10/11/2012 1000

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Total Suspended Solids	0.48	U H	mg/L	0.48	0.48	1.0	SM 2540D

Analysis Batch: 200-46364 Analysis Date: 10/12/2012 1316

DATA REPORTING QUALIFIERS

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Lab Section	Qualifier	Description
Metals		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	U	Undetected at the Limit of Detection.
General Chemistry		
	H	Sample was prepped or analyzed beyond the specified holding time
	U	Undetected at the Limit of Detection.

QUALITY CONTROL RESULTS

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-46470					
LCS 200-46470/2-A	Lab Control Sample	T	Water	3010A	
MB 200-46470/1-A	Method Blank	T	Water	3010A	
200-13157-1	MW-07A-100312-QA	T	Water	3010A	
200-13157-1DU	Duplicate	T	Water	3010A	
200-13157-1MS	Matrix Spike	T	Water	3010A	
Analysis Batch:200-46730					
LCS 200-46470/2-A	Lab Control Sample	T	Water	6020A	200-46470
MB 200-46470/1-A	Method Blank	T	Water	6020A	200-46470
200-13157-1	MW-07A-100312-QA	T	Water	6020A	200-46470
200-13157-1DU	Duplicate	T	Water	6020A	200-46470
200-13157-1MS	Matrix Spike	T	Water	6020A	200-46470

Report Basis
T = Total

General Chemistry

Analysis Batch:200-46364					
LCS 200-46364/2	Lab Control Sample	T	Water	SM 2540D	
MB 200-46364/1	Method Blank	T	Water	SM 2540D	
200-13157-1	MW-07A-100312-QA	T	Water	SM 2540D	

Report Basis
T = Total

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Method Blank - Batch: 200-46470

Method: 6020A
Preparation: 3010A

Lab Sample ID:	MB 200-46470/1-A	Analysis Batch:	200-46730	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-46470	Lab File ID:	101812-04.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	10/18/2012 2103	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	10/15/2012 0900				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Cadmium	0.18	U	0.046	2.0
Chromium	0.40	U	0.11	4.0
Copper	0.80	U	0.23	20
Lead	0.093	U	0.024	2.0

Lab Control Sample - Batch: 200-46470

Method: 6020A
Preparation: 3010A

Lab Sample ID:	LCS 200-46470/2-A	Analysis Batch:	200-46730	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-46470	Lab File ID:	101812-04.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	10/18/2012 2109	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	10/15/2012 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	25.0	25.1	100	80 - 120	
Chromium	50.0	49.6	99	80 - 120	
Copper	50.0	50.4	101	80 - 120	
Lead	25.0	25.7	103	80 - 120	

Matrix Spike - Batch: 200-46470

Method: 6020A
Preparation: 3010A

Lab Sample ID:	200-13157-1	Analysis Batch:	200-46730	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-46470	Lab File ID:	101812-04.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	10/18/2012 2243	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	10/15/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.31	J	10.0	10.2	99	75 - 125	
Chromium	0.40	U	20.0	19.9	100	75 - 125	
Copper	1.9	J	20.0	21.4	97	75 - 125	
Lead	0.056	J	10.0	10.2	101	75 - 125	

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Duplicate - Batch: 200-46470

Method: 6020A
Preparation: 3010A

Lab Sample ID:	200-13157-1	Analysis Batch:	200-46730	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-46470	Lab File ID:	101812-04.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	10/18/2012 2236	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	10/15/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Cadmium	0.31	J	0.321	2	20	J
Chromium	0.40	U	0.40	NC	20	U
Copper	1.9	J	2.00	4	20	J
Lead	0.056	J	0.0630	12	20	J

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
Sdg Number: 73934

Method Blank - Batch: 200-46364

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 200-46364/1	Analysis Batch:	200-46364	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	10/12/2012 1316	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Total Suspended Solids	0.50	U	0.50	0.50

Lab Control Sample - Batch: 200-46364

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCS 200-46364/2	Analysis Batch:	200-46364	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/12/2012 1316	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	500	476	95	85 - 115	

Chain Of Custody Form

TA VT

analytics environmental laboratory LLC
195 Commerce Way, Suite E
Portsmouth, NH 03801
(800) 929-9906
(603) 436-5111
(603) 430-2151 Fax

Project Name: New Bedford Harbor
Project#: Superfund Project
Company: Analytics Environmental Laboratory
Report to: Ms. Kate Zaleski
Address: 195 Commerce Way, Suite E
Portsmouth, NH 03801
Phone: 603-436-5111
Quote #:
PO# (if required): 73934

Preservation Code:

Preservation Key:
A= HCL
B= 4°C
C= Unpres
D = MeOH
E = HNO3
F = H2SO4
G = Hexane
H = Other

Circle and/or Write Required Analysis Followed by Preservation Code
Please fill in preservation code here

Sample Identification	Sample Date	Sample Time	Field Filtered? Y or (N)	TSS	metals 6020 **	Matrix	No. of Containers	pH checked	Analytics Sample #
MW-07A-10312-QA	10/3/12	14:30		X	X	GW	2		73934-1

Sample Receipt
Samples were:
1) (Shipped) or hand-delivered
2) Temperature (°C): 0.7
3) Received in good condition: (Y) or N
4) pH checked by: GMK
5) Labels checked by: GMK

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
E = Extract
GW = Groundwater
DW = Drinking Water
S = Soil / Sludge
O = Oil
X = Other

Email Results to:
cpayne@analyticslab.com

Turnaround Time (TAT)
☐ 24 Hours* ☐ 48 Hours*
☐ 72 Hours* ☐ 5 Days*
☐ 10 Days
*Call if not able to approve requested date
10/17/12

Comments, Additional Analyses, or Special Instructions:
Please reference Station ID number and AEL Lab number on report(s).
OK to run past hold time for TSS

** List requested metals here
Cd, Cr, Cu, Pb
by 6020

Project Requirements:
*Fee may apply

Report Type:
☐ MCP ☒ Level II
☐ CTRCP ☐ Level III
☒ DOD ☐ Level IV
☐ Standard

State:
☐ NH
☒ MA
☐ ME
☐ CT
☐ RI
Other:

State Standard:
(eg. S-1 or GW-1)
EDD Required: Y* (N)
Type*:

Relinquished By: L. Mayo	Date: 10/10/12	Time: 1600	Received By: UPS
Relinquished By: UPS	Date:	Time:	Received By: Steph Burke TAMUR 1009
Relinquished By:	Date:	Time:	Received By:

Page 1 of 1

MR. STEPHEN KNOLLMEYER
(603) 436-5111
ANALYTICS ENVIRONMENTAL LABORA
195 COMMERCE WAY, SUITE E
PORTSMOUTH NH 03801-3261

25 LBS

1 OF 1

DWT: 19,11,14

SHIP TO:
ATTN: SAMPLE RECIEPT
TEST AMERICA/STL BURLINGTON
SUITE 11
30 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403

VT 054 0-02

UPS GROUND

TRACKING #: 1Z 6A5 5V5 03 5405 5973

BILLING: P/P

WS 15.0.16

LP2442 30.0A 07/2012

Login Sample Receipt Checklist

Client: Analytics Environmental Laboratory, LLC

Job Number: 200-13157-1
SDG Number: 73934

Login Number: 13157
List Number: 1
Creator: Gagne, Eric

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEALS
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C IR GUN ID 181. CF +0.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CHAIN OF CUSTODIES

MANSFIELD CHAIN OF CUSTODY

PAGE_____ OF _____

ALPHA ANALYTICAL

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

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: USACE - New England District

Address: 696 Virginia Road Concord, MA 01742-2751

Phone: 978-318-8312

Fax: 978-318-

Email: mark.r.koenig@usace.army.mil

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Harbor

Project Location: New Bedford MA

Project #: Superfund Project

Project Manager: Ellen Iorio

ALPHA Quote #: N/A

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

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: NBH PCB Aroclors LOQ = 0.05 µg/L

Other Project Specific Requirements/Comments/Detection Limits:

PLEASE NOTE

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Aroclors 8082*	VOCs 8260B	Metals 6020	TSS	Sample Specific Comments	TOTAL # BOTTLES
23934-1	MW-07A-100312-QA	10/3/12	1630	GW	MAB	X					2
	MW-07A-100312-QA	10/3/12	1630	GW	MAB		X				3
	MW-07A-100312-QA	10/3/12	1630	GW	MAB			X			1
	MW-07A-100312-QA	10/3/12	1630	GW	MAB				X		1

SAMPLE HANDLING

Filtration N/A

☑ Done

☑ Not needed

☐ Lab to do

Preservation

☐ Lab to do

(Please specify below)

Container Type	A	V	P	P
Preservative	A	A, B, S	C	A

amber liters (-) for CL using KI paper - CP 10/10/12

Relinquished By:	Date/Time	Received By:	Date/Time
Mitchell Mez	10/3/12 1734	Mark R. Koenig Fed EX	10/3/12
Fed Ex	10/5/12 1000	Cathy	10/5/12 1000

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.

FORM NO: 101-09 (rev. 27-SEP-10)

ANALYTICS SAMPLE RECEIPT CHECKLIST

analytics environmental laboratory LLC

AEL LAB#: 73934 COOLER NUMBER: client's

CLIENT: USACE NUMBER OF COOLERS: 1

PROJECT: New Bedford Harbor

A: PRELIMINARY EXAMINATION:

1. Cooler received by(initials): CP DATE COOLER RECEIVED/OPENED: 10/5/12

2. Circle one: Hand delivered (If so, skip 3) (Shipped)

3. Did cooler come with a shipping slip? (Y) N

3a. Enter carrier name and airbill number here: Fed Ex 8731 8175 8813

4. Were custody seals on the outside of cooler? (Y) N
How many & where: 2 on lid Seal Date: 10/3/12 Seal Name: MRK

5. Did the custody seals arrive unbroken and intact upon arrival? (Y) N

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, legible, project information etc)? Y (N)

8. Were custody papers sealed in a plastic bag? (Y) N

9. Did you sign the COC in the appropriate place? (Y) N

10. Was enough ice used to chill the cooler? (Y) N Temp. of cooler: 4.8

B. Log-In: Date samples were logged in: FedEx By: 10/10/12

11. Were all bottles sealed in separate plastic bags? (Y) N

12. Did all bottles arrive unbroken and were labels in good condition? (Y) N

13. Were all bottle labels complete(ID,Date,time,etc.) (Y) N

14. Did all bottle labels agree with custody papers? (Y) N

15. Were the correct containers used for the tests indicated: (Y) N

16. Were samples received at the correct pH? 1L Smetals Container (Y) N

17. Was sufficient amount of sample sent for the tests indicated? PCBs @ 7.5 pH (Y) N

18. Were all samples submitted within holding time? (Y) N - Taken off hold on 10/10/12

19. Were all containers used within AEL 's expiration date?** Y N/A not AEL containers

20. Were VOA samples absent of greater than pea-sized bubbles? (Y) N*

(Note:Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatiles data.)

*If NO, List Sample ID's, Lab #s: _____

When bubbles are present in VOA samples they are labelled from smallest (or no bubbles) to largest. Lab to analyze VOA samples with no bubbles or smallest bubbles first

20. Laboratory labeling verified by (initials): CP Date: 10/10/12

**The expiration date is recommended by Analytics Environmental Laboratory and not the method. Therefore this does not mean that the results are non-compliant.

97

200

FedEx Express US Airbill

FedEx Tracking Number 8731 8175 8513

Recipient's Copy

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 10/4/12 FedEx Tracking Number 873181758513

Sender's Name USACE Phone 978 318-8111

Company US ARMY CORP OF ENGINEERS/IMD

Address 696 VIRGINIA RD Dept./Floor/Suite/Room

City CONCORD State MA ZIP 01742-2718

2 Your Internal Billing Reference

3 To

Recipient's Name Kate Zaleski Phone 603 436-5111

Company Analytics Environmental Laboratory, LLC

Address 195 Commerce Way Suite E

We cannot deliver to P.O. boxes or P.O. ZIP codes.

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Portsmouth State NH ZIP 03801

0423576382

8731 8175 8513

4a Express Package Service * To most locations. *Packages up to 150 lbs.*

- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.*
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service ** To most locations. *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak and FedEx Large Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [x] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods? One box must be checked.

- [ ] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

- [ ] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Obtain recip. Acct. No. [ ]

Total Packages 1 Total Weight 24 lbs. Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

605

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ORIGIN ID: BEDA 9783188404x00552
US ARMY CORP OF ENGINEERS/IMO
696 VIRGINIA RD
CONCORD, MA 017422718
UNITED STATES US
SHIP DATE: 04OCT12
ACTWGT: 29.6 LB
CAD: /OFFC1302
DIMS: 19x11x12 IN
BILL SENDER
KATE ZALESKI
ANALYTICS ENVIRONMENTAL LABORA
195 COMMERCE WAY
UNIT E
PORTSMOUTH NH 03801
(603) 436-5111
REF:
INV:
PO:
DEPT:
FedEx
Express
TRK# 0215 8731 8175 8513
FRI - 05 OCT A2
PRIORITY OVERNIGHT
03 IGGA
03801
NH-US MHT
USACE
10/3/12
Custody