UTILITY-RELATED ABATEMENT MEASURE COMPLETION REPORT

Emergency Water Main Repair

New Bedford High School
230 Hathaway Boulevard
New Bedford, Massachusetts
Release Tracking Number (RTN) 4-15685

Prepared for:

Department of Environmental Stewardship
City of New Bedford
133 William Street
New Bedford, Massachusetts 02740

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TRC Project Number: 115058

TRC Environmental Corporation (TRC) is submitting this Utility-Related Abatement Measure Completion Report (URAM Completion Report) to the Massachusetts Department of Environmental Protection (MassDEP) on behalf of the City of New Bedford (City) through the City's Department of Environmental Stewardship per the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). This URAM Completion Report addresses utility work associated with emergency repair of a water main at the New Bedford High School (NBHS) campus in New Bedford, Massachusetts (the "Site"). The utility-related construction activities completed under the URAM included emergency soil excavation to locate and repair a break in a water main servicing the southern portion of NBHS. The water main break occurred within the northwest portion of the NBHS school bus parking lot (Bus Yard) located on Parker Street. The water main extends north from Parker Street servicing the southern portion of NBHS which includes the Boys Gym (E-Block) and the Swimming Pool (F-Block). The water main break required an emergency utility repair by the City's Department of Infrastructure (DPI). The repair occurred within an area that is tracked by MassDEP under Release Tracking Number (RTN) 4-15685. Response actions at the RTN 4-15685 Site are conducted under a Special Project Designation permit per 310 CMR 40.0060. A Site Location Map is provided as Figure 1.

This URAM Completion Report is organized as follows: Section I (Background), briefly summarizes information on TRC's involvement with the Site and the objective for the URAM Completion Report. Section II (URAM Completion Report) provides the content for a URAM Completion Report under the MCP, as set forth under 310 CMR 40.0466(2). Section III (References) lists information sources relied upon in the preparation of this URAM Completion Report.

Appendix A contains copies of soil boring logs and well construction logs associated with previous investigation activities conducted by TRC in the vicinity of the URAM-related activities. Appendix B contains representative photographs depicting the location of the URAM-related water main repair activities.

I. BACKGROUND

The NBHS campus is located at 230 Hathaway Boulevard in New Bedford, Massachusetts. The water main repair occurred within the northwest portion of the Bus Yard, which is located on Parker Street along the southern limit of the NBHS campus (see Figure 2).

On February 21, 2012, TRC was notified by the City that the DPI had conducted emergency repairs to a break in a short section of the 8-inch diameter water main that extends north from Parker Street approximately 300-feet to service the southern portion of NBHS. This URAM Completion Report addresses the utility work associated with the water main repairs.

Documentation of previous investigations conducted by TRC and BETA Group, Incorporated (BETA) in the vicinity of the water main repair are derived from the following documents and briefly summarized herein:

- *Phase II Comprehensive Site Assessment, New Bedford High School Campus at the Parker Street Waste Site, New Bedford, Massachusetts. May 2011.*
- *Immediate Response Action Plan, New Bedford High School, 230 Hathaway Boulevard, New Bedford, Massachusetts. March 2010.*
- *Immediate Response Action Plan Modification, New Bedford High School, 230 Hathaway Boulevard, New Bedford, Massachusetts. January 2011.*

The following provides a brief summary of previous soil and groundwater investigation activities conducted in the vicinity of the water main repair.

Summary of Soil Investigations

Soil and groundwater samples have been previously collected by TRC and BETA in the vicinity (i.e., within approximately 75-feet) of the water main repair. The analytical results from these samples provide an understanding of the potential subsurface impacts near water main repair. Soil boring locations in the vicinity of the water main repair are depicted on Figure 2. Monitoring wells MW-26 and MW-HRC-33, located in the vicinity of the water main repair, are also depicted on Figure 2.

Previous BETA Investigation Activities

Previous subsurface environmental investigations within the NBHS campus were conducted by BETA between September 2004 and February 2006. During that time, BETA advanced 343 soil borings plus an additional 12 surface soil samples (0-6 inches) within the NBHS campus. BETA advanced three soil borings within approximately 75-feet of the water main repair. BETA collected soil samples from two of those soil borings (i.e., HJ-42 and HRA-30) for laboratory analysis for polychlorinated biphenyls (PCBs). In addition, BETA collected one composite sample (i.e., HJ42+HF31) for semivolatile organic compound (SVOC) and metal analysis. A summary of the analytical results for the BETA soil samples is provided in Table 1.

Previous TRC Investigation Activities

In July 2008, TRC advanced soil borings throughout the NBHS campus to evaluate potential soil impacts. Soil boring SB-311 was advanced within the Bus Yard and soil samples were analyzed for polyaromatic hydrocarbons (PAHs), PCBs and metals. A summary of the analytical results for soil samples is provided in Table 1.

In December 2008, TRC collected surface soil samples (0 to 0.5-feet depth interval) throughout the NBHS campus to evaluate potential shallow soil impacts. Surface soil sample SS-42 was collected within approximately 75-feet of the water main repair and analyzed for PAHs, PCBs and metals (Table 1).

In April 2009, TRC conducted additional subsurface environmental investigation activities at the NBHS campus. Soil samples were collected from four soil borings (i.e., HJ-42A through HJ-42D) in the vicinity of the water main repair and analyzed for PCBs, cadmium and lead. It should be noted that TRC soil borings HJ-42A, HJ-42B, HJ-42C and HJ-42D, as well as previously noted BETA soil boring HJ-42 and composite sample HJ42+HF31, were excavated in 2011 as part of RAM Plan implementation at the NBHS campus (TRC, 2011c). The data are referenced herein for the purposes of this URAM Completion Report only. A summary of the analytical results for soil samples is provided in Table 1.

The soil samples were analyzed by Con-Test Analytical Laboratories (Con-Test) of East Longmeadow, Massachusetts for PAHs and/or metals. The samples were analyzed by Pace/Northeast Analytical, Incorporated (Pace/NEA) of Schenectady, New York for PCBs. Drilling services and equipment were provided by New England Geotech, LLC (New England Geotech) of Jamestown, Rhode Island. Copies of associated soil boring logs for the environmental investigations conducted by TRC are provided in Appendix A.

TRC conducted field screening of soil samples consisting of visual and olfactory observations, jar headspace readings using a calibrated photoionization detector (PID), and professional judgment, consistent with TRC Standard Operating Procedures (SOPs) and general industry practice. TRC employed the MassDEP jar headspace technique (MassDEP, 1996) to screen for the presence of volatile organic compounds (VOCs) in soil; nothing was detected above background. TRC also evaluated and logged the geologic character of the soil samples consistent with the Burmeister (1958) method.

The sampling locations were surveyed by Land Planning, Incorporated of Hanson, Massachusetts (Land Planning) following TRC's sampling activities.

Summary of Groundwater Investigations

Groundwater categories at the Site include actual or potential GW-2, depending on proximity to occupied structures(groundwater is expected to be less than 15 feet below ground surface based on data collected by TRC in the vicinity of the water main route on the NBHS campus), and GW-3, which applies to all groundwater throughout the Commonwealth.

Based on review of on-line MassDEP Priority Resource Map data available from Massachusetts Geographic Information System (MassGIS), the Site is not located with a Current or Potential Drinking Water Source Area (MassGIS, 2008).

Based on the repair activities described by DPI, groundwater was not encountered during the repair of the water main break given the shallow excavation depth of approximately 3.5 feet below grade. Also, based on previous groundwater samples results, groundwater impacts were not expected in the vicinity of the repair. In addition to upgradient monitoring well MW-19, two

monitoring wells (MW-26 and MW-HRC-33) are located in the vicinity of the water main repair (see Figure 2). Previous groundwater samples were analyzed by Con-Test for PAHs and/or metals. The samples were analyzed by Pace/NEA for PCBs. Groundwater samples were submitted to Alpha Analytical (Alpha) of Westboro, Massachusetts for VOC analysis. A summary of previous groundwater analytical results collected in the vicinity of the water main repair are included in Table 2. Well installation logs for the monitoring wells are provided in Appendix A.

II. URAM COMPLETION REPORT (310 CMR 40.0466)

This URAM Completion Report is organized according to the contents set forth under 310 CMR 40.0466(2) (a) through (c) of the MCP.

(a) Succinct Summary of Response Actions

This URAM Completion Report provides a regulatory vehicle for emergency utility repairs at sites where impacts are present in soil and/or groundwater provided that this will not limit or impede the implementation of future response actions or remedies. A summary of the information and data pertaining to the evaluation of soil and groundwater in the vicinity of the water main repair is provided in Section I.

URAM-related emergency water main repair activities were carried out by DPI on February 17, 2012. A map showing the approximate location of the break and extents of the small excavation needed to repair the water main is included as Figure 2. A representative photographic log of the Site is presented as Appendix A.

Water Main Repair Activities

On February 21, 2012, TRC was notified by the City that a water main servicing the southern portion of NBHS had broken and emergency repairs had been implemented. At approximately 8:00 am on the morning of February 17, 2012, DPI responded to the water main break within the northwest corner of the Bus Yard (Figure 2).

DPI responded by excavating a relatively small area to locate the damaged portion of the water main. The break in the water main was observed to have occurred within a short section of 8-inch piping that services the southern portion of NBHS. The 8-inch pipeline extends from a 12-inch water main within Parker Street, approximately 300 feet north and enters the NBHS building near the E- and F-Blocks. The 8-inch pipeline extends under a portion of the Bus Yard, where the break occurred (Figure 2).

Utility repair activities consisted of a single excavation measuring approximately 4-foot by 4-foot through the Bus Yard asphalt pavement to a depth of approximately 3.5 feet below grade. Based on previous environmental investigation activities and information provided by DPI, the subsurface conditions generally consisted of tan-brown to blackish sand and silt, varying amounts of gravel, and fill material. No odors or staining were observed or noted.

According to representatives from DPI, the water main repair generally consisted of the following activities:

- Saw cutting and removal of existing asphalt pavement for recycling by DPI;
- Temporary soil excavation, stockpiling and management;
- Repair of the ruptured water main;
- Backfilling of the excavation with stockpiled material; and
- Replacement of asphalt pavement and refurbishment of unpaved areas.

A DPI backhoe or similar machine was used during asphalt removal and excavation activities. Asphalt removed during the emergency repair was loaded directly into a DPI truck and transported off-site for recycling by DPI.

Potentially impacted soil excavated during excavation activities was temporarily stockpiled onsite on polyethylene sheeting (6-mil minimum) immediately adjacent to the excavation. Following necessary repairs to the water main, excavated soil was backfilled in approximately the order in which it was removed. No soil was permanently displaced during the utility repair activities. No groundwater was encountered during implementation of the repair.

Following backfilling activities, the excavation was temporarily covered with cold patch pending placement of permanent asphalt pavement.

Environmental Monitoring

The water main repair was conducted by DPI on an emergency basis and as a result no instrumental dust monitoring or VOC field screening was conducted. However, the DPI staff is trained in accordance with Occupation Safety and Health Administration (OSHA) regulations (e.g., HAZWOPER Standard under 29 CFR 1910.120) and familiar with the implementation of subsurface activities within the RTN 4-15685 disposal site, specifically the NBHS campus. Soil encountered during the repair activities was managed in accordance with best management practices, including efforts to minimize potential fugitive dust generation. Potentially impacted soil was temporarily stockpiled on polyethylene sheeting (6-mil minimum) immediately adjacent to the excavation prior to being returned as backfill. No visual signs of fugitive dust or presence of odors were noted by DPI during the repair activities.

(b) Documentation on the Management of Remediation Waste, Remedial Wastewater, and/or Remedial Additives

All temporarily stockpiled soil material was backfilled in approximately the order in which it was removed.

No remediation waste, remedial wastewater or remedial additives were generated or managed during the implementation of URAM-related activities.

(c) Proposed Ongoing Active or Passive Remedial Systems

No ongoing active or passive remedial systems are required in relation to the URAM activities described herein. No additional URAM-related activities are expected.

III. REFERENCES

Burmeister, 1958. *Suggested Methods of Tests for Identification of Soils.* In: Procedures for Testing Soils. American Society for Testing and Materials, Philadelphia, PA, 1958.

MassDEP, 1996. Commonwealth of Massachusetts Underground Storage tank Closure Assessment Manual. Policy # WSC-402-96. Massachusetts Department of Environmental Protection. April 9, 1996.

MassGIS, 2008. Massachusetts Geographic Information System (MassGIS), On-line MassDEP Priority Resource Map. Accessed May 21, 2009. http://maps.massgis.state.ma.us/21e/viewer.htm

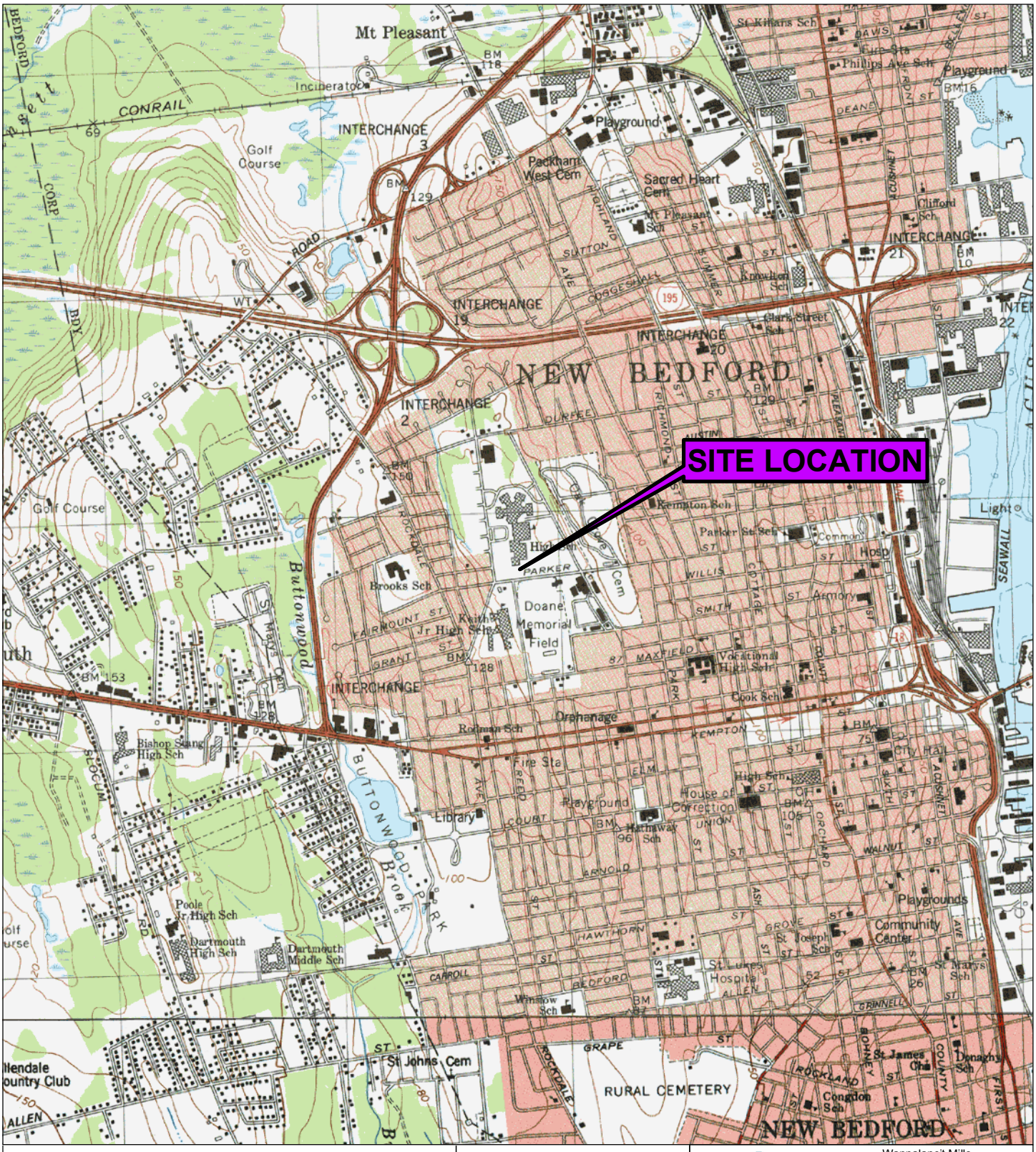
TRC, 2010 *Immediate Response Action Plan, New Bedford High School Substantial Release Migration / Critical Exposure Pathway, 230 Hathaway Boulevard, New Bedford, Massachusetts.* Prepared for: City of New Bedford Department of Environmental Stewardship. Prepared by: TRC Environmental Corporation. March 2010.

TRC, 2011a. *Immediate Response Action Plan Modification - New Bedford High School, 230 Hathaway Boulevard, New Bedford, Massachusetts.* Prepared for: City of New Bedford Department of Environmental Stewardship. Prepared by: TRC Environmental Corporation. January, 2011.

TRC, 2011b. *Phase II Comprehensive Site Assessment, New Bedford High School Campus at the Parker Street Waste Site, New Bedford, Massachusetts.* Prepared for the City of New Bedford. Prepared by TRC, Lowell, Massachusetts. April 2011.

TRC, 2011c. *Release Abatement Measure Plan, Soil Excavation and Removal at New Bedford High School, Parker Street Waste Site, New Bedford, Massachusetts.* Prepared for the City of New Bedford. Prepared by TRC, Lowell, Massachusetts. April 2011.

FIGURES



Basemap: U.S.G.S. 7.5 Minute Topographic Quadrangles
New Bedford South (1977) New Bedford North (1979)

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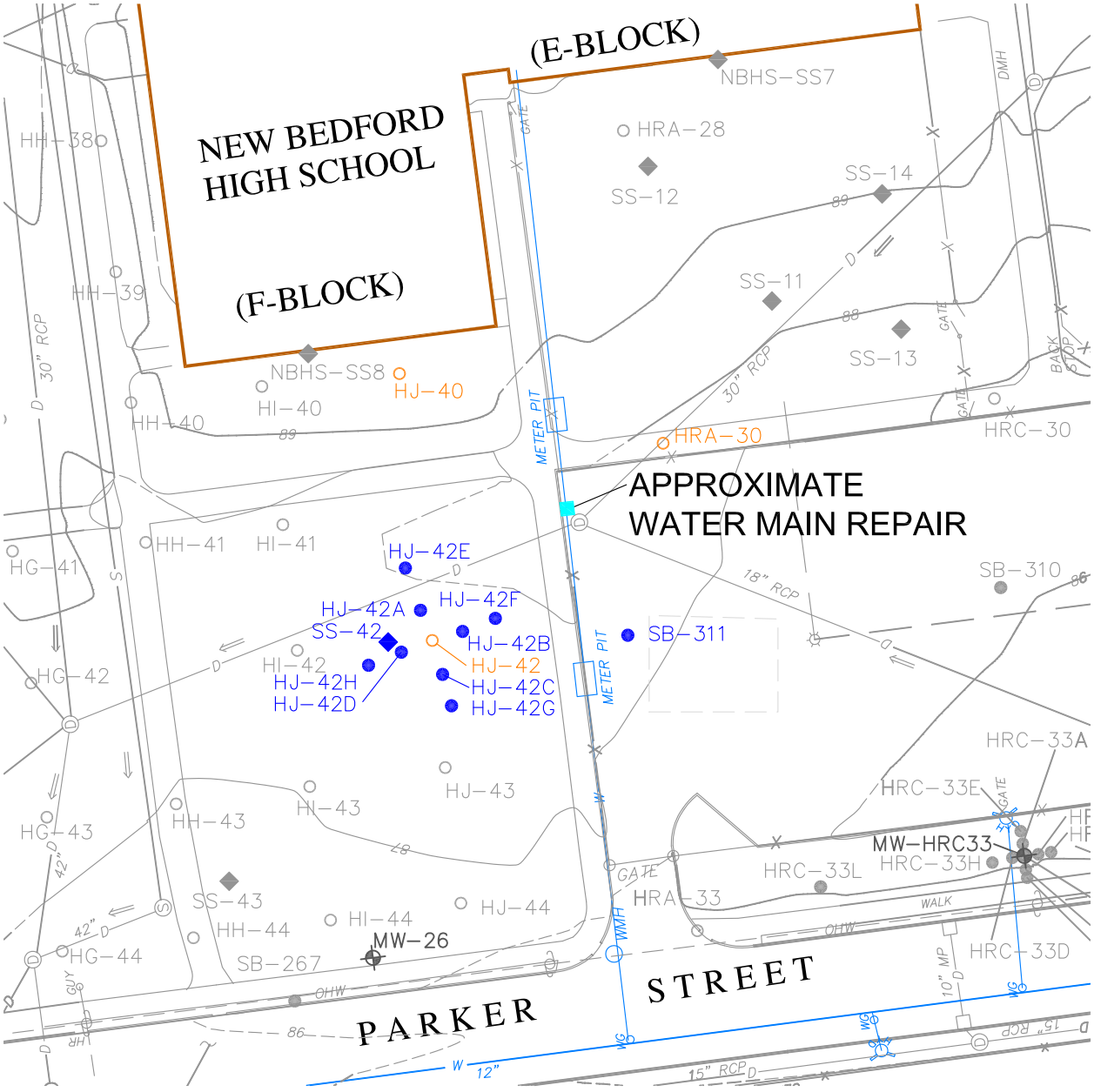
SITE LOCATION MAP
WATER MAIN BREAK
NEW BEDFORD, MASSACHUSETTS

FIGURE 1	MARCH 2012

R:\Projects\GIS_2007\54634_NBedford\Fig1_water_main_break_031212.mxd



LEGEND:

MW-26	MONITORING WELL LOCATION
HJ-42B	TRC SOIL BORING LOCATION
SS-42	SURFACE SOIL SAMPLE LOCATION
HJ-43	BETA SOIL BORING LOCATION
	APPROXIMATE EXCAVATION LOCATION
	WATER LINE
	BUILDING

APPROXIMATE GRAPHIC SCALE

0' 25' 50' 100'

NOTE:

HIGHLIGHTED SOIL BORING AND SURFACE SOIL SAMPLE LOCATIONS ARE WITHIN APPROXIMATELY 75 FEET OF WATER MAIN REPAIR.

NEW BEDFORD HIGH SCHOOL
NEW BEDFORD, MASSACHUSETTS

WATER MAIN REPAIR LOCATION

TRC
Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
(978) 970-5600

DRAWN BY: HWB
CHECKED BY: JBS
DATE: APRIL 2012

FIGURE 2

FILE: T:\E_CAD\115058\NBHS WATER MAIN REPAIR 4-2-12.dwg

TABLES

Table 1
Summary of Analytical Results for Soil Samples
URAM Water Main Repair
New Bedford, Massachusetts

Analysis	Analyte	S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1*	TSCA	Sample ID: HJ-42	HJ42+HF31	HJ-42A		HJ-42B		HJ-42C		HJ-42D		HRA-30	SB-311			SS-42
								Sample Depth (ft.): 2.5-3	0.5-3	0-1	1-3	0-1	1-3	0-1	1-3	0-1	1-3	0.75-1	6	6	9	0-0.5
								Sample Date: 12/30/2004	12/30/2004	4/2/2009	4/2/2009	4/2/2009	4/2/2009	4/2/2009	4/2/2009	4/1/2009	4/1/2009	2/22/2006	7/23/2008	7/23/2008 Field Dup	7/23/2008	12/2/2008
SVOCs																						
(mg/kg)	n-Nitrosodimethylamine	NS	NS	NS	NS	NS	NA	NA	0.18 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyridine	NS	NS	NS	NS	NS	NA	NA	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phenol	50	20	50	20	1	NA	NA	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aniline	NS	NS	NS	NS	1,000	NA	NA	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	bis(2-Chloroethyl)ether	0.7	0.7	0.7	3	0.7	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Chlorophenol	100	100	100	300	0.7	NA	NA	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,3-Dichlorobenzene	40	100	40	500	1	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,4-Dichlorobenzene	4	50	4	300	0.7	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,2-Dichlorobenzene	30	300	30	300	9	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Methylphenol	NS	NS	NS	NS	500	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Bis(2-chloroisopropyl)ether	NS	NS	NS	NS	0.7	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Methylphenol	200*	5*	NS	NS	500	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	n-Nitroso-di-n-propylamine	NS	NS	NS	NS	NS	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachloroethane	3	9	3	100	0.7	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrobenzene	NS	NS	NS	NS	500	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Isophorone	NS	NS	NS	NS	100	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Nitrophenol	NS	NS	NS	NS	100	NA	NA	0.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dimethylphenol	100	500	100	1,000	0.7	NA	NA	0.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzoic Acid	1,000*	1,000*	NS	NS	NS	NA	NA	0.91 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	bis(2-Chloroethoxy)methane	NS	NS	NS	NS	500	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dichlorophenol	60	40	60	40	0.7	NA	NA	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,2,4-Trichlorobenzene	70	500	70	900	2	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Chloroaniline	100	3	100	3	1	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachlorobutadiene	6	6	90	90	6	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Chloro-3-methylphenol	NS	NS	NS	NS	NS	NA	NA	0.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachlorocyclopentadiene	NS	NS	NS	NS	NS	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,6-Trichlorophenol	20	20	20	20	0.7	NA	NA	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,5-Trichlorophenol	1,000	600	1,000	600	4	NA	NA	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Chloronaphthalene	NS	NS	NS	NS	1,000	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Nitroaniline	NS	NS	NS	NS	NS	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dimethyl phthalate	50	600	50	600	30	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,6-Dinitrotoluene	NS	NS	NS	NS	100	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3-Nitroaniline	NS	NS	NS	NS	NS	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dinitrophenol	50	50	50	90	3	NA	NA	0.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Nitrophenol	NS	NS	NS	NS	100	NA	NA	0.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dinitrotoluene	2	2	10	10	0.7	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Diethyl phthalate	200	300	200	300	10	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Chlorophenyl phenyl ether	NS	NS	NS	NS	NS	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Nitroaniline	NS	NS	NS	NS	NS	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4,6-Dinitro-2-methylphenol	NS	NS	NS	NS	NS	NA	NA	0.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	n-Nitrosodiphenylamine	NS	NS	NS	NS	NS	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Bromophenyl phenyl ether	0.3*	0.3*	NS	NS	100	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachlorobenzene	0.7	0.7	5	5	0.7	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pentachlorophenol	10	10	70	10	3	NA	NA	0.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Di-n-butylphthalate	NS	NS	NS	NS	50	NA	NA	**0.17 JB**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzidine	NS	NS	NS	NS	NS	NA	NA	3.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Butyl benzyl phthalate	NS	NS	NS	NS	100	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3,3'-Dichlorobenzidine	1	1	10	10	1	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	bis(2-Ethylhexyl)phthalate	200	200	700	700	200	NA	NA	**0.15 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Di-n-octyl phthalate	NS	NS	NS	NS	1,000	NA	NA	0.18 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3-Methylphenol/4-Methylphenol	NS	NS	NS	NS	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acetophenone	NS	NS	NS	NS	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Azobenzene	NS	NS	NS	NS	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Carbazole	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dibenzofuran	10*	10*	NS	NS	100	NA	NA	**0.12**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acenaphthene	1,000	1,000	3,000	3,000	4	NA	NA	**0.27**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acenaphthylene	600	10	600	10	1	NA	NA	**0.077**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Anthracene	1,000	1,000	3,000	3,000	1,000	NA	NA	**0.59**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)anthracene	7	7	40	40	7	NA	NA	**1.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)pyrene	2	2	4	4	2	NA	NA	**1.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(b)fluoranthene	7	7	40	40	7	NA	NA	**2.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(g,h,i)perylene	1,000	1,000	3,000	3,000	1,000	NA	NA	**0.87**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(k)fluoranthene	70	70	400	400	70	NA	NA	**0.77**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chrysene	70	70	400	400	70	NA	NA	**1.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dibenz(a,h)anthracene	0.7	0.7	4	4	1	NA	NA	0.06 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoranthene	1,000	1,000	3,000	3,000	1,000	NA	NA	**3.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluorene	1,000	1,000	3,000	3,000	1,000	NA	NA	**0.26**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 1
Summary of Analytical Results for Soil Samples
URAM Water Main Repair
New Bedford, Massachusetts

Analysis	Analyte	S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1*	TSCA	HJ-42 2.5-3 12/30/2004	HJ42+HF31 0.5-3 12/30/2004	HJ-42A 0-1 4/2/2009	HJ-42A 1-3 4/2/2009	HJ-42B 0-1 4/2/2009	HJ-42B 1-3 4/2/2009	HJ-42C 0-1 4/2/2009	HJ-42C 1-3 4/2/2009	HJ-42D 0-1 4/1/2009	HJ-42D 1-3 4/1/2009	HRA-30 0.75-1 2/22/2006	SB-311 6 7/23/2008	SB-311 6 7/23/2008 Field Dup	SB-311 9 7/23/2008	SS-42 0-0.5 12/2/2008
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	NA	**0.87**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Methylnaphthalene	80	300	80	500	0.7	NA	NA	**0.11**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Naphthalene	40	500	40	1,000	4	NA	NA	**0.11**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phenanthrene	500	500	1,000	1,000	10	NA	NA	**2.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyrene	1,000	1,000	3,000	3,000	1,000	NA	NA	**7.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs (mg/kg)	2-Methylnaphthalene	80	300	80	500	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Acenaphthene	1,000	1,000	3,000	3,000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Acenaphthylene	600	10	600	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Anthracene	1,000	1,000	3,000	3,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Benzo(a)anthracene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Benzo(a)pyrene	2	2	4	4	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Benzo(b)fluoranthene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Benzo(g,h,i)perylene	1,000	1,000	3,000	3,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Benzo(k)fluoranthene	70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Chrysene	70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Dibenz(a,h)anthracene	0.7	0.7	4	4	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Fluoranthene	1,000	1,000	3,000	3,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Fluorene	1,000	1,000	3,000	3,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Naphthalene	40	500	40	1,000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Phenanthrene	500	500	1,000	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
	Pyrene	1,000	1,000	3,000	3,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.16 U	0.232 U	0.652 U	0.199 U
PCBs (mg/kg)	Aroclor 1016/1242	2	2	3	3	2	1	0.07 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA
	Aroclor 1016	2	2	3	3	2	1	NA	NA	0.0561 U	0.0540 U	0.0536 U	0.0539 U	0.0527 U	0.0639 U	0.0532 U	0.0572 U	NA	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
	Aroclor 1221	2	2	3	3	2	1	0.141 U	NA	0.0561 U	0.0540 U	0.0536 U	0.0539 U	0.0527 U	0.0639 U	0.0532 U	0.0572 U	0.20 U	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
	Aroclor 1232	2	2	3	3	2	1	0.07 U	NA	0.0561 U	0.0540 U	0.0536 U	0.0539 U	0.0527 U	0.0639 U	0.0532 U	0.0572 U	0.10 U	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
	Aroclor 1242	2	2	3	3	2	1	NA	NA	0.0561 U	0.0540 U	0.0536 U	0.0539 U	0.0527 U	0.0639 U	0.0532 U	0.0572 U	NA	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
	Aroclor 1248	2	2	3	3	2	1	0.07 U	NA	0.0561 U	0.0540 U	0.0536 U	0.0539 U	0.0527 U	0.0639 U	0.0532 U	0.0572 U	0.10 U	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
	Aroclor 1254	2	2	3	3	2	1	**0.94**	NA	0.0561 U	0.0540 U	0.0536 U	**0.125 J**	0.0527 U	**0.676 J**	0.0532 U	**0.136 J**	**0.99**	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
	Aroclor 1260	2	2	3	3	2	1	0.07 U	NA	0.0561 U	0.0540 U	0.0536 U	**0.121 J**	0.0527 U	**0.1900 J**	0.0532 U	0.0572 U	**0.94**	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
	Aroclor 1262	2	2	3	3	2	1	**0.277**	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA
	Aroclor 1268	2	2	3	3	2	1	0.07 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA
	Total PCBs	2	2	3	3	2	1	**1.217**	NA	0.0561 U	0.0540 U	0.0536 U	**0.246 J**	0.0527 U	**0.866 J**	0.0532 U	**0.136 J**	**1.93**	0.0667 U	0.0706 U	0.183 UJ	0.0549 U
Metals (mg/kg)	Mercury	20	20	30	30	20	N/A	NA	**1.25**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.218**	**0.215**	0.078 U	**0.044**
	Antimony	20	20	30	30	20	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.54 U	5.56 U	15.7 U	4.76 U
	Arsenic	20	20	20	20	20	N/A	NA	**17**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**14.9**	**18.0**	9.77 U	**3.00**
	Barium	1,000	1,000	3,000	3,000	1,000	N/A	NA	**340**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**384**	**356**	**23.7**	**17.5**
	Beryllium	100	100	200	200	100	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.55**	**0.59**	0.98 U	0.30 U
	Cadmium	2	2	30	30	2	N/A	NA	**4.92**	0.28 U	0.27 U	0.30 U	0.28 U	0.27 U	**2.66**	0.27 U	0.28 U	NA	**1.71**	**1.71**	0.98 U	0.30 U
	Chromium	30	30	200	200	30	N/A	NA	**36**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**24.6**	**40.8**	**11.5**	**5.29**
	Lead	300	300	300	300	300	N/A	NA	**993**	**7.41**	**4.06**	**8.36**	**26.4**	**6.83**	**247**	**12.3**	**16.8**	NA	**1,970**	**912**	**4.51**	**17.5**
	Nickel	20	20	700	700	20	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**17.2**	**31.3**	**9.47**	**2.64**
	Selenium	400	400	800	800	400	N/A	NA	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.92 U	6.95 U	19.6 U	5.95 U
	Silver	100	100	200	200	100	N/A	NA	**0.48**	NA	NA	NA	NA	NA	NA	NA	NA	NA	**10.7**	**12.5**	1.96 U	0.60 U
	Thallium	8	8	60	60	8	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	R	R	3.57 U
	Vanadium	600	600	1,000	1,000	600	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**22.1**	**23.5**	19.6 U	**11.7**
	Zinc	2,500	2,500	3,000	3,000	2,500	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**851**	**592**	**21.3**	**27.7**

Notes:

All units in mg/kg unless otherwise specified.

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

U - Compound was not detected at specified quantitation limit.

B - Detected in associated laboratory method blank.

J - Estimated value.

NA - Sample not analyzed for the listed analyte.

N/A - Not applicable.

Values in **Bold** indicate the compound was detected.

Values shown in Bold and shaded type exceed one or more of the listed Method 1 standards.

SVOCs - Semi-Volatile Organic Compounds.

PAHs - Polynuclear Aromatic Hydrocarbons.

PCBs - Polychlorinated Biphenyls.

RC - Reportable Concentration.

TSCA - Toxic Substances Control Act criteria.

2004, 2005, and 2006 Data are based on the "Summary of Analytical Data, New Bedford High School" dated June 9, 2006, BETA Group, Inc.

(1) - MassDEP Method 1 standards and RC for C9-C10 aromatics used.

(2) - MassDEP RC for Dichloropropane used.

(3) - MassDEP RC for Dichloropropene used.

(4) - MassDEP RC for 1,3-Dichloropropene used.

* - For references only.

Table 2
Summary of Analytical Results for Groundwater Samples
URAM Water Main Repair
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:		MW-19	MW-26	MW-HRC-33		
		Sample Date:		2/18/2010	9/8/2010	4/23/2009	4/23/2009 Field Dup	2/17/2010
		GW-2	GW-3					
VOCs								
(ug/L)	Methylene Chloride	10,000	50,000	5.0 U	2.0 U	NA	NA	5.0 U
	1,1-Dichloroethane	1,000	20,000	1.0 U	1.0 U	NA	NA	1.0 U
	Chloroform	50	20,000	1.0 U	1.0 U	NA	NA	1.0 U
	Carbon Tetrachloride	2	5,000	1.0 U	1.0 U	NA	NA	1.0 U
	1,2-Dichloropropane	3	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	Chlorodibromomethane	20	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	1,1,2-Trichloroethane	900	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	Tetrachloroethylene	50	30,000	1.0 U	1.0 U	NA	NA	1.0 U
	Chlorobenzene	200	1,000	1.0 U	1.0 U	NA	NA	1.0 U
	Trichlorofluoromethane (Freon 11)	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,2-Dichloroethane	5	20,000	1.0 U	1.0 U	NA	NA	1.0 U
	1,1,1-Trichloroethane	4,000	20,000	1.0 U	1.0 U	NA	NA	1.0 U
	Bromodichloromethane	6	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	trans-1,3-Dichloropropene	10(2)	200(2)	0.50 U	0.50 U	NA	NA	0.50 U
	cis-1,3-Dichloropropene	10(2)	200(2)	0.50 U	0.50 U	NA	NA	0.50 U
	1,1-Dichloropropene	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	Bromoform	700	50,000	2.0 U	2.0 U	NA	NA	2.0 U
	1,1,2,2-Tetrachloroethane	9	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	Benzene	2,000	10,000	1.0 U	1.0 U	NA	NA	1.0 U
	Toluene	50,000	40,000	1.0 U	1.0 U	NA	NA	1.0 U
	Ethylbenzene	20,000	5,000	1.0 U	1.0 U	NA	NA	1.0 U
	Chloromethane	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	Bromomethane	7	800	5.0 U	2.0 U	NA	NA	5.0 U
	Vinyl Chloride	2	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	Chloroethane	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,1-Dichloroethylene	80	30,000	1.0 U	1.0 U	NA	NA	1.0 U
	trans-1,2-Dichloroethylene	90	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	Trichloroethylene	30	5,000	1.0 U	1.0 U	NA	NA	1.0 U
	1,2-Dichlorobenzene	2,000	2,000	1.0 U	1.0 U	NA	NA	1.0 U
	1,3-Dichlorobenzene	2,000	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	1,4-Dichlorobenzene	200	8,000	1.0 U	1.0 U	NA	NA	1.0 U
	Methyl tert-Butyl Ether (MTBE)	50,000	50,000	2.0 U	2.0 U	NA	NA	2.0 U
	m+p Xylene	9,000	5,000	2.0 U	2.0 U	NA	NA	2.0 U
	o-Xylene	9,000	5,000	1.0 U	1.0 U	NA	NA	1.0 U
	cis-1,2-Dichloroethylene	100	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	Dibromomethane	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,2,3-Trichloropropane	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	Styrene	100	6,000	1.0 U	1.0 U	NA	NA	1.0 U
	Dichlorodifluoromethane (Freon 12)	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	Acetone	50,000	50,000	5.0 U	5.0 U	NA	NA	5.0 U
	Carbon Disulfide	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	2-Butanone (MEK)	50,000	50,000	5.0 U	5.0 U	NA	NA	5.0 U
	4-Methyl-2-pentanone (MIBK)	50,000	50,000	5.0 U	5.0 U	NA	NA	5.0 U
	2-Hexanone (MBK)	NS	NS	5.0 U	5.0 U	NA	NA	5.0 U
	Bromochloromethane	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	Tetrahydrofuran	NS	NS	10 U	10 U	NA	NA	10 U
	2,2-Dichloropropane	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,2-Dibromoethane (EDB)	2	50,000	2.0 U	2.0 U	NA	NA	2.0 U
	1,3-Dichloropropane	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,1,1,2-Tetrachloroethane	10	50,000	1.0 U	1.0 U	NA	NA	1.0 U
	Bromobenzene	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	n-Butylbenzene	7,000(1)	50,000(1)	2.0 U	2.0 U	NA	NA	2.0 U
	sec-Butylbenzene	7,000(1)	50,000(1)	2.0 U	2.0 U	NA	NA	2.0 U
	tert-Butylbenzene	7,000(1)	50,000(1)	2.0 U	2.0 U	NA	NA	2.0 U
	2-Chlorotoluene	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	4-Chlorotoluene	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,2-Dibromo-3-chloropropane (DBCP)	NS	NS	5.0 U	2.0 U	NA	NA	5.0 U
	Hexachlorobutadiene	1	3,000	0.60 U	0.60 U	NA	NA	0.60 U

Table 2
Summary of Analytical Results for Groundwater Samples
URAM Water Main Repair
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:		MW-19	MW-26	MW-HRC-33		
		Sample Date:		2/18/2010	9/8/2010	4/23/2009	4/23/2009	2/17/2010
		GW-2	GW-3				Field Dup	
	Isopropylbenzene (Cumene)	7,000[(1)]	50,000[(1)]	2.0 U	2.0 U	NA	NA	2.0 U
	p-Isopropyltoluene (p-Cymene)	7,000[(1)]	50,000[(1)]	2.0 U	2.0 U	NA	NA	2.0 U
	Naphthalene	1,000	20,000	5.0 U	5.0 U	NA	NA	5.0 U
	n-Propylbenzene	7,000[(1)]	50,000[(1)]	2.0 U	2.0 U	NA	NA	2.0 U
	1,2,3-Trichlorobenzene	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,2,4-Trichlorobenzene	2,000	50,000	2.0 U	2.0 U	NA	NA	2.0 U
	1,3,5-Trimethylbenzene	7,000[(1)]	50,000[(1)]	2.0 U	2.0 U	NA	NA	2.0 U
	1,2,4-Trimethylbenzene	7,000[(1)]	50,000[(1)]	2.0 U	2.0 U	NA	NA	2.0 U
	Diethyl Ether	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	Diisopropyl Ether (DIPE)	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	tert-Butyl Ethyl Ether (TBEE)	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	tert-Amyl Methyl Ether (TAME)	NS	NS	2.0 U	2.0 U	NA	NA	2.0 U
	1,4-Dioxane	6,000	50,000	250 U	250 U	NA	NA	250 U
PAHs								
(ug/L)	Acenaphthene	NS	6,000	NA	NA	0.30 U	NA	NA
	Acenaphthylene	10,000	40	NA	NA	0.30 U	NA	NA
	Anthracene	NS	30	NA	NA	0.20 U	NA	NA
	Benzo(a)anthracene	NS	1,000	NA	NA	0.05 U	NA	NA
	Benzo(a)pyrene	NS	500	NA	NA	0.10 U	NA	NA
	Benzo(b)fluoranthene	NS	400	NA	NA	0.05 U	NA	NA
	Benzo(g,h,i)perylene	NS	20	NA	NA	0.50 U	NA	NA
	Benzo(k)fluoranthene	NS	100	NA	NA	0.20 U	NA	NA
	Chrysene	NS	70	NA	NA	0.20 U	NA	NA
	Dibenz(a,h)anthracene	NS	40	NA	NA	0.20 U	NA	NA
	Fluoranthene	NS	200	NA	NA	0.50 U	NA	NA
	Fluorene	NS	40	NA	NA	1.0 U	NA	NA
	Indeno(1,2,3-cd)pyrene	NS	100	NA	NA	0.20 U	NA	NA
	2-Methylnaphthalene	2,000	20,000	NA	NA	1.0 U	NA	NA
	Naphthalene	1,000	20,000	NA	NA	1.0 U	NA	NA
	Phenanthrene	NS	10,000	NA	NA	0.05 U	NA	NA
	Pyrene	NS	20	NA	NA	1.0 U	NA	NA
PCBs								
(ug/L)	Aroclor 1016	5	10	NA	NA	0.050 U	0.050 U	NA
	Aroclor 1221	5	10	NA	NA	0.050 U	0.050 U	NA
	Aroclor 1232	5	10	NA	NA	0.050 U	0.050 U	NA
	Aroclor 1242	5	10	NA	NA	0.050 U	0.050 U	NA
	Aroclor 1248	5	10	NA	NA	0.050 U	0.050 U	NA
	Aroclor 1254	5	10	NA	NA	0.050 U	0.050 U	NA
	Aroclor 1260	5	10	NA	NA	0.050 U	0.050 U	NA
	Total PCBs	5	10	NA	NA	0.050 U	0.050 U	NA
Metals, total								
(ug/L)	Antimony	NS	8,000	NA	NA	40.0 U	NA	NA
	Arsenic	NS	900	NA	NA	5.0 U	NA	NA
	Barium	NS	50,000	NA	NA	**157**	NA	NA
	Beryllium	NS	200	NA	NA	2.0 U	NA	NA
	Cadmium	NS	4	NA	NA	2.5 U	NA	NA
	Chromium	NS	300	NA	NA	5.0 U	NA	NA
	Lead	NS	10	NA	NA	**10.5**	NA	NA
	Mercury	NS	20	NA	NA	0.10 U	NA	NA
	Nickel	NS	200	NA	NA	5.0 U	NA	NA
	Selenium	NS	100	NA	NA	30.0 U	NA	NA
	Silver	NS	7	NA	NA	3.0 U	NA	NA
	Thallium	NS	3,000	NA	NA	30.0 U	NA	NA
	Vanadium	NS	4,000	NA	NA	25.0 U	NA	NA
	Zinc	NS	900	NA	NA	**300**	NA	NA

Table 2
Summary of Analytical Results for Groundwater Samples
URAM Water Main Repair
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:		MW-19	MW-26	MW-HRC-33		
		Sample Date:		2/18/2010	9/8/2010	4/23/2009	4/23/2009	2/17/2010
		GW-2	GW-3				Field Dup	
Metals, dissolved								
(ug/L)	Antimony	NS	8,000	NA	NA	40.0 U	NA	NA
	Arsenic	NS	900	NA	NA	5.0 U	NA	NA
	Barium	NS	50,000	NA	NA	**141**	NA	NA
	Beryllium	NS	200	NA	NA	2.0 U	NA	NA
	Cadmium	NS	4	NA	NA	2.5 U	NA	NA
	Chromium	NS	300	NA	NA	5.0 U	NA	NA
	Lead	NS	10	NA	NA	7.5 U	NA	NA
	Mercury	NS	20	NA	NA	0.10 U	NA	NA
	Nickel	NS	200	NA	NA	5.0 U	NA	NA
	Selenium	NS	100	NA	NA	30.0 U	NA	NA
	Silver	NS	7	NA	NA	3.0 U	NA	NA
	Thallium	NS	3,000	NA	NA	30.0 U	NA	NA
	Vanadium	NS	4,000	NA	NA	25.0 U	NA	NA
	Zinc	NS	900	NA	NA	**270**	NA	NA

Notes:

ug/L - micrograms per liter.

NA - Sample not analyzed for the listed analyte.

NS - No MassDEP standards exist for this compound.

U - Compound was not detected at specified quantitation limit.

Values in **Bold** indicate the compound was detected.

Values shown in Bold and shaded type exceed one or more of the listed MassDEP Method 1 standards.

VOCs - Volatile Organic Compounds.

PAHs - Polynuclear Aromatic Hydrocarbons.

PCBs - Polychlorinated Biphenyls.

(1) - MassDEP Method 1 standards for C9-C10 aromatic hydrocarbons used.

(2) - MassDEP Method 1 standards for 1,3-Dichloropropene used.

APPENDIX A

Soil Boring and Well Construction Logs

Soil Boring Logs

Wannalancit Mills
650 Suffolk Street
Lowell MA
Telephone: 978-970-5600
Fax: 978-453-1995

BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42A
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/2/09
LOCATION NBHS - Approximately 10 feet North of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 87.90
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/38	S-1		8" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.			
1					20" Tan to brown fine SAND, little to some silt, trace fine gravel, slightly moist, no odor, no staining.		HJ-42A(0-1) 0915	
2						0.0	HJ-42A(1-3) 0920	No Monitoring Well Installed
3					10" FILL (silty matrix from 28-30 inches then ash, little coal, trace slag and glass), slightly moist, no odor, no staining.			
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42B
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/2/09
LOCATION NBHS - Approximately 10 feet East of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 87.81
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/31	S-1		8" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.			
1					16" Tan to brown fine SAND, little to some silt, trace fine gravel, slightly moist, no odor, no staining.		HJ-42B(0-1) 1405	
2					7" Black SILT matrix with FILL (ash, coal, and glass), trace rusty coloration, moist, no odor, no staining.	0.0	HJ-42B(1-3) 1410	No Monitoring Well Installed
3								
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42C
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/2/09
LOCATION NBHS - Approximately 10 feet South of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 87.63
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/40	S-1		9" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.		HJ-42C(0-1) 0905	
1					15" Tan to brown fine SAND, little to some silt, trace fine to medium gravel, slightly moist, no odor, no staining.			
2					4" Dark brown SILT, little fill (ash and coal), slight moist, dense, no odor, no staining.	0.0	HJ-42C(1-3) 0910	
3					12" FILL (ash, little coal, trace slag and glass), slightly moist, no odor, no staining.			
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42D
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/1/09
LOCATION NBHS - Approximately 10 feet West of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 87.56
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/37	S-1		7" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.			
1					16" Tan-brown fine SAND, little to some silt, trace fine gravel, slightly moist, no odor, no staining.		HJ-42D(0-1) 1425	
2					14" FILL (ash, little coal, trace slag and glass), dark gray to brown fine sand from 34-36 inches, slightly moist to moist, no odor, no staining.	0.0	HJ-42D(1-3) 1430	No Monitoring Well Installed
3								
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42E
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/2/09
LOCATION NBHS - Approximately 20-25 feet North of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd) (Hold all)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 88.18
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/36	S-1		8" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.		HJ-42E(0-1) 0930	
1					28" Tan-brown fine SAND, little to some silt, trace fine gravel, darker zone from 22-23 inches but no obvious signs of fill at depth, slightly moist to moist, no odor, no staining.			
2						0.0	HJ-42E(1-3) 0935	No Monitoring Well Installed
3								
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42F
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/1/09
LOCATION NBHS - Approximately 20 feet East of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd) (Hold all)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 87.89
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/40	S-1		8" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.			
					14" Tan to brown fine SAND, little to some silt, trace fine gravel, slightly moist, no odor, no staining.		HJ-42F(0-1) 1350	
1								
2					8" FILL (silt matrix with coal, little ash), slightly moist, no odor, no staining.	0.0	HJ-42F(1-3) 1355	No Monitoring Well Installed
3					10" FILL (ash, little coal, trace glass), cutting shoe contains dark gray fine sand, slightly moist, no odor, no staining.			
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42G
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/2/09
LOCATION NBHS - Approximately 20 feet South of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd) (Hold all)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 87.56
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/38	S-1		6" Dark brown SILT and fine SAND, trace roots and pulverized gravel, slightly moist, no odor, no staining.			
1					14" Tan-brown fine SAND, little to some silt, trace fine to medium gravel, slightly moist, no odor, no staining.		HJ-42G(0-1) 0855	
2					14" FILL (some silty matrix with ash, little coal, trace glass and wood), slightly moist to moist, no odor, no staining.	0.0	HJ-42G(1-3) 0900	No Monitoring Well Installed
3								
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER HJ-42H
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 4/1/09
LOCATION NBHS - Approximately 20 feet West of HJ-42
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/5400 Truck Rig
NOTES Samples analyzed for PCBs and Metals (Pb, Cd) (Hold all)

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) NA
TOTAL DEPTH (Feet) 4
GROUND ELEVATION (Feet) 87.14
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
	NA	48/36	S-1		8" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.		HJ-42H(0-1) 1440	
1					12" Tan to brown fine SAND, little to some silt, trace fine gravel, slightly moist, no odor, no staining.			
2					4" Dark brown SILT with FILL (ash, coal, and wood debris), slightly moist, no odor, no staining.			
					12" FILL (ash, some coal, trace slag, glass and metal), moist, no odor, no staining.	0.0	HJ-42H(1-3) 1445	No Monitoring Well Installed
3								
4					End of Boring - Terminated at 4 feet			

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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058
BORING/WELL NUMBER SB-311
TRC GEOLOGIST C. Foster
DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows
DATE DRILLED 7/23/08
LOCATION West end of bus depot
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push 5400 Truck Rig
NOTES Sampled for PCBs, PAHs & metals. (Hold SB-311 (11))

SCREEN TYPE/SLOT NA
FILTER PACK TYPE NA
SEAL TYPE NA
DEPTH TO WATER (Approximate Feet) 6
TOTAL DEPTH (Feet) 12
GROUND ELEVATION (Feet) 87.24
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
0		48/48"	S-1		0-2" ASPHALT 2-4" Sub-base SAND. 4-28" Tan fine to coarse SAND.	0.0		
1								
2								
3					28-48" Dark-brown to blackish SILT, some fine to coarse sand, trace fine gravel with fill (slag, glass, ash and bricks).			
4		48/38"	S-2		0-18" Dark-brown to blackish SILT, some fine to coarse sand, trace fine gravel with fill (slag, glass, increased tan ash and bricks), moist.	0.0		
5								
6					18-38' Organic PEAT, SILT and CLAY, wet.		SB-311 (6) 0940 SB-311-D 0840 DUP	▽ No monitoring well installed
7								
8		48/46"	S-3		0-16" Organic PEAT, SILT, CLAY, wet.	0.0		
9							SB-311 (9) 0950	
10					16-24" Dark-brown SILT, some clay, moist to wet.			
11					24-46" Gray fine to medium SAND, some silt, saturated.		SB-311 (11) 0955	
12					End of Boring @ 12 feet			

Well Construction Logs

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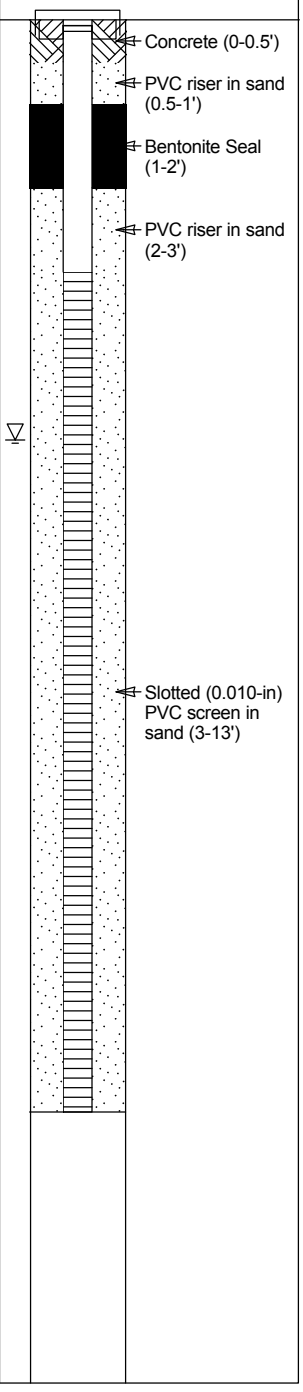
BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058
BORING/WELL NUMBER MW-19
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Hayes Rembijas
DATE DRILLED 2/15/10
LOCATION NBHS - Southeast corner of Auditorium Parking lot
SAMPLING METHOD 60" Macrocore
DRILLING METHOD Direct Push/6600 Truck Rig Geoprobe
NOTES No Soil samples collected.

SCREEN TYPE/SLOT 2-inch Schedule 40 Slotted (0.010-in) PVC
FILTER PACK TYPE #2 Sand
SEAL TYPE Bentonite
DEPTH TO WATER (Approximate Feet) 5
TOTAL DEPTH (Feet) 13
GROUND ELEVATION (Feet) 88.76
REFERENCE ELEVATION (Feet) 88.58

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME
0	NA	60/48	MC-1		0-2" ASPHALT.		NA
					2-42" Orange to tan-brown fine SAND, little medium to coarse sand, trace fine gravel, slightly moist to moist, no odor, no staining.	0.0	
4					42-48" FILL (ash with glass, coal, and slag), orange to brown ash with dark brown matrix, moist to wet, no odor, no staining.		
5	NA	60/24	MC-2		0-6" FILL (ash with glass, coal, and slag), wet, no odor, no staining.		NA
6					6-10" WOOD DEBRIS, wet.		
					10-24" Dark brown organic SILT (PEAT), trace roots, moist to wet, no odor, no staining.	0.0	
10	NA	NA	NA		End of Boring - Terminated at 10 feet Advanced 3-inch casing to 13 feet to install monitoring well.		NA
12						NA	

WELL DIAGRAM



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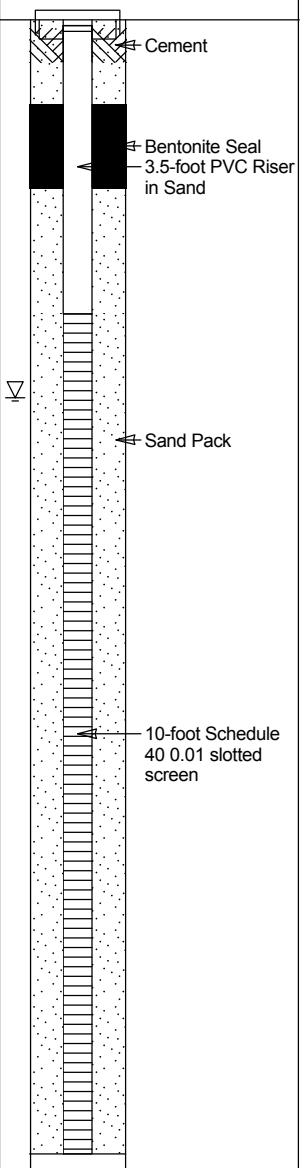
BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford -115058
BORING/WELL NUMBER MW-26
TRC GEOLOGIST E.Wachtel
DRILLING CONTRACTOR/FOREMAN New England Geotech/H. Rembijas
DATE DRILLED 8-26-10
LOCATION NBHS - Along Parker Street/South of F-block
SAMPLING METHOD 60" Macrocore
DRILLING METHOD Direct Push 6600 DT Truck Rig
NOTES No samples

SCREEN TYPE/SLOT Sch. 40 10-slot PVC
FILTER PACK TYPE Sand
SEAL TYPE Bentonite
DEPTH TO WATER (Approximate Feet) 4.5
TOTAL DEPTH (Feet) 13.5
GROUND ELEVATION (Feet) 86.47
REFERENCE ELEVATION (Feet) 86.10

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME
		60/30	S-1		0-6" Brown organic TOPSOIL, some grass and roots.	0.0	
1					6-10" Tan fine-medium SAND, some rounded gravel.		
2					10-30" Brown fine-medium SAND and FILL (coal fragments, ash, white ash, trace bricks fragments), some rounded gravel, moist to wet with rust banding at 4.5-feet.		
3							
4							
5		60/54	S-2		0-3" Collapsed FILL.	0.0	
					3-8" Tan to gray SILT.		
6					8-38" Dark-brown PEAT, some plant fibers.		
7							
8							
9					38-42" Tan fine SAND and SILT.		
					42-54" Gray fine-medium SAND.		
10		60/36	S-3		0-36" Gray fine-medium SAND and SILT.	0.0	
11							
12							
13							
					End of Boring at 15-feet		

WELL DIAGRAM



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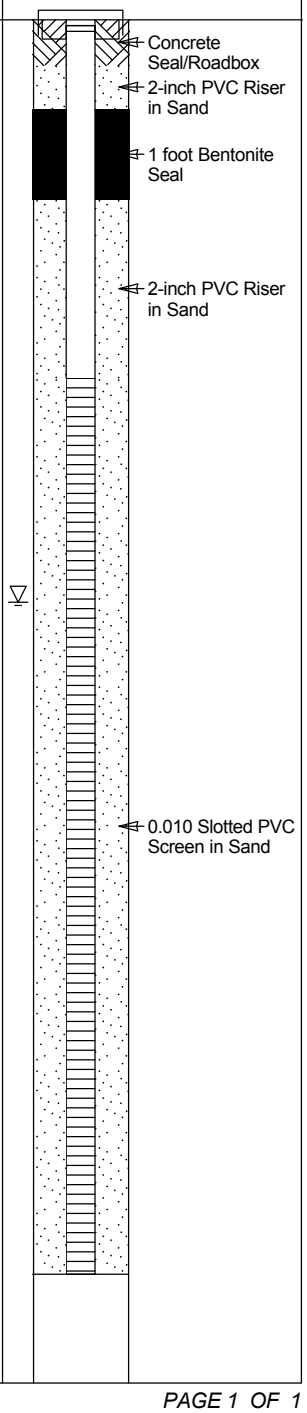
BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford (NBHS)/115058
BORING/WELL NUMBER MW-HRC-33
TRC GEOLOGIST J. Saunders
DRILLING CONTRACTOR/FOREMAN New England Geotech/Steve Perry
DATE DRILLED 4/3/09
LOCATION NBHS - HRC-33 Location/Adjacent to bus yard
SAMPLING METHOD 48" Macrocore
DRILLING METHOD Direct Push/6620 DT Track Rig
NOTES No Samples Collected

SCREEN TYPE/SLOT 0.010 2-inch slotted PVC: 4-14 feet
FILTER PACK TYPE Sand
SEAL TYPE Bentonite
DEPTH TO WATER (Approximate Feet) 6.5
TOTAL DEPTH (Feet) 14
GROUND ELEVATION (Feet) 86.26
REFERENCE ELEVATION (Feet)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME
0	NA	48/18	S-1		6" Dark brown SILT and fine SAND, trace roots and fine gravel, slightly moist, no odor, no staining.		
					6" Pulverized GRAVEL.		
1					6" SILT and FILL (ash, trace brick and glass), trace fine gravel, moist, no odor, no staining.		
2						0.0	
3							
4	NA	48/26	S-2		4" Dark-tan-brown SILT, some fine sand, trace to little fine gravel, and fill (ash and brick), moist to wet, no odor, no staining.		
5					22" Dark brown organic PEAT, little root/wood debris, wet, slight organic odor, no staining.		
6						0.0	
7							NA
8	NA	48/36	S-3		8" Dark brown organic PEAT, little root/wood debris, wet, slight organic odor, very slight sheen (likely a result of organic matter breakdown), no staining.		
9					28" Gray fine SAND, little silt, trace medium sand, wet.		
10						0.0	
11							
12		NA	NA		No Sample Collected		
13						NA	
14					End of Boring - Terminated at 14 feet		



APPENDIX B

Photograph Log

Utility-Related Release Measure Water Main Repair
New Bedford High School
New Bedford, Massachusetts

Photo 1: View of Bus Yard located on Parker Street (view from the west).

Photo 2: Excavation area within the northwest corner of the Bus Yard (view from the southwest).

Photo 3: Excavation area within the northwest corner of the Bus Yard (view from the northwest) with Parker Street in the background.

Photo 4: Excavation area within the northwest corner of the Bus Yard (view from the south) with NBHS in the background.

Photo 5: Close up of backfilled excavation area (view from the south).

Photo 6: Area of water main repair within the Bus Yard (view from the south).